Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

THE PERINATAL SERVICE CAPACITY OF THE FEDERALLY FUNDED COMMUNITY HEALTH CENTERS:

RURAL CENTERS

DECEMBER 1992 OEI-01-90-02331

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EXECUTIVE SUMMARY

PURPOSE

This report describes recent trends in the perinatal service capacity of rural community health centers funded under Section 330 of the Public Health Service Act.

BACKGROUND

The high infant mortality rate in the United States continues to be a cause for concern. The Public Health Service (PHS) recommends timely, high-quality perinatal care as an effective way to lower the infant mortality rate and ensure healthier newborns. A number of obstacles, however--including a decreasing supply of obstetrical providers, rising medical malpractice insurance costs, and inadequate health insurance coverage--prevent many women from obtaining perinatal services in a timely fashion.

Attention has increasingly focused on the role of community health centers as key providers of perinatal services to high-risk women in medically underserved areas across the nation. Many of these women are difficult to reach and do not appreciate the importance of prenatal care. In 1991, PHS funded 302 rural centers; these represented 60 percent of all Section-330 centers. The Federal government provides additional support for the centers through PHS Section-329 and -340 grants for migrant workers and the homeless, Medicare and Medicaid reimbursements, Maternal and Child Health grants, and the National Health Semite Corps.

In recent years the Federal government has made an increasing investment in the centers. Little information is available, however, on the extent to which the centers are able to address the perinatal care needs of the women they seine. To examine the capacity of rural centers to provide perinatal care, we conducted a mail survey of all rural centers receiving Section-330 funds as of June 1991 (to which 84 percent responded); visited 1 center; conducted a telephone interview with representatives of another center; held discussions with PHS administrators, State officials, and infant health experts; and reviewed the relevant literature and data. Our findings are based primarily on information reported by the centers to us and to PHS.

FINDINGS

The capacity of rural community health centers to ***provide perinatal care has increased*** in several ***respects since 1988.***

- The number of prenatal clients served by the centers rose **20** percent between 1988 and 1990, from an average of 261 per center to 312. The number of births to center clients rose **21** percent during the same period, from an average

of 194 per center to 235. Survey respondents reported a total of 52,597 prenatal clients and 36,316 births in 1990.

- The range of perinatal services increased at 61 percent of centers. The services added at the largest number of centers were HIV testing and counseling, smoking-cessation programs, and classes in parenting and childbirth.

- The range of ancillary services--such as home visiting and transportation--increased at 28 percent of the centers.

- Forty-eight percent of centers offered on-site assistance with enrollment in Medicaid in 1990, an increase from 25 percent in 1988. Fifty-three percent of centers offered on-site assistance with enrollment in the Supplemental Food Program for Women, Infants, and Children in 1990, an increase from 49 percent in 1988.

- Total revenues for the rural centers increased 20 percent between 1988 and 1990; this includes a 19 percent increase in Section-330 grant funding, and a 42 percent increase in Medicaid reimbursements. Thirty-eight percent of survey respondents reported that the amount of funding available for perinatal services has increased since 1988.

Despite these increases in** capacity, demand **for perinatal services at rural centers has continued to grow** and many **clients** still **do not receive the optimal coordinated package of care in a timely fashion.

- Twenty percent of the centers reported that they provided no perinatal services on site between 1988 and 1991. Our study did not examine the extent to which these centers made alternative perinatal care arrangements for their clients.

- Demand for services increased at 75 percent of the centers; 42 percent of these centers reported their capacity to meet this growing demand either decreased or remained the same.

- Many centers reported that they do not coordinate, as part of their perinatal case-management efforts, all of the health and social services recommended by the Public Health Service. This may, in part, reflect variations in the definition of “case management” among centers.

- On average, 59 percent of each center’s prenatal clients entered care during the first trimester in 1990. Nationally, 76 percent of all women, 62 percent of minority women, and 58 percent of women in Healthy Start project areas entered care during the first trimester.

- On average 18 percent of each center's first-trimester enrollees received fewer than 9 prenatal visits. Our study did not examine the extent to which these patients may have received care elsewhere.

- Thirty-eight percent of centers did not offer prenatal appointments at times convenient for working women.

Rural centers identified several major constraints that seriously limit their capacity to provide perinatal care.

Medical staff shortages. Medical staff shortages, in part as a result of cuts in the National Health Service Corps in the 1980's, present serious problems at 67 percent of centers. Although the number of prenatal clients increased an average of 20 percent at the centers, the number of obstetricians, family physicians, and certified nurse midwives decreased an average of 1 percent. Twenty-eight percent of rural centers reported that at least 1 of these positions had been vacant for longer than 1 year.

Medical malpractice insurance. The high cost of medical malpractice insurance has been a serious drain on resources at 55 percent of the centers. In late 1992, Congress took initial steps to address this problem by passing legislation (P.L. 102-501) that extends medical malpractice liability protection under the Federal Tort Claims Act (FTCA) to health care providers at the centers.

Medicaid policies and procedures. Seventy percent of centers report serious problems stemming from Medicaid policies and procedures--such as a burdensome application process, low reimbursement rates, a limited range of covered services, or limited eligibility.

Inadequate health insurance. On average, 17 percent of each center's perinatal clients were uninsured in 1990. At 9 percent of the centers more than 50 percent of the clients were uninsured.

Unsatisfactory community coordination. Seventy-three percent of the centers report serious problems stemming from unsatisfactory coordination of perinatal services in the community, a lack of other local providers willing to treat uninsured and publicly insured women, difficulty arranging obstetric backup for center staff and for consultation for high-risk clients, or difficulty obtaining hospital privileges for center staff.

Limited space. Limited space seriously hinders the provision of services at 48 percent of the centers. In addition, limited collocation of services on site seriously restricts the comprehensiveness of care at 28 percent of the centers.

COMPANION REPORTS

This is one of three reports on the capacity of the community health centers to provide perinatal care. Another report, *The Perinatal Service Capacity of the Federally Funded Community Health Centers: Urban Centers (OEI-01-90-02330)* examines recent trends in the perinatal care capacity of urban community health centers.

The third report, *The Perinatal Service Capacity of the Federally Funded Community Health Centers: An Overview* (OEI-01-90-02332), summarizes and compares data on the perinatal care capacities of the urban and rural centers. It also presents information on two areas of special policy interest: Medicaid reimbursements to CHCS and Comprehensive Perinatal Care Program funding of the centers.

That report identifies four major constraints that limit the perinatal capacity of the community health centers: inadequate staffing, the high cost of medical malpractice insurance, ineffective ties between the centers and the Medicaid program, and unsatisfactory relationships between the centers and other community providers.

To enable the centers to meet increasing demand for services, these limitations must be addressed in the near term by a cooperative effort involving government at the Federal, State, and local levels, as well as non-governmental organizations. The third report offers a recommendation that the Public Health Service (PHS) and the Health Care Financing Administration (HCFA) work with the Assistant Secretary for Planning and Evaluation (ASPE) to draft and implement a plan of action that addresses the identified limitations. The report also includes comments on the draft reports received from PHS, HCFA, and ASPE.

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INTRODUCTION

PURPOSE

This report describes recent trends in the perinatal service capacity of rural community health centers funded under Section 330 of the Public Health Semite Act.

BACKGROUND

Birth Outcomes in the United States: The high rate of infant mortality in the United States continues to be a cause for concern. Each year, approximately 40,()()0 infants die before their first birthday--almost 1 percent of all infants born alive in the nation. In the 1950's, the U.S. ranked 5th among the world's nations in lowest infant mortality; today it ranks 23rd. The rate for black infants continues to be double that for white infants.[1]

Perinatal Care in Rural America: A pregnant woman with no prenatal care is three times more likely to have a baby born at low birthweight--a key indicator of the risk of infant death--than a woman with adequate care. The Public Health Service (PHS) recommends timely, high-quality care before, during, and after birth as an effective way to lower the infant mortality rate and ensure healthier infants. Such perinatal care should include early and continuing risk assessment; health promotion; and medical, nutritional, and psychosocial interventions and follow-up.[2] A full course of care is especially vital for women at risk because of medical or social factors.

In 1989, however, almost 170,000 American women received no prenatal care until the third trimester, and another 86,000 received no care at all during pregnancy. Thirteen percent of whites received inadequate care; the proportion of blacks and Hispanics was twice that.[3]

Rural women face especially significant barriers to care, including poverty, isolation, inadequate medical insurance, and a lack of transportation. A shortage of health professionals in rural areas--particularly a lack of obstetrical providers--exacerbates these problems. Although 28 percent of Americans live outside of urban areas, they are served by only 13 percent of the nation's doctors;[4] more than 1,400 rural counties have no obstetricians at all.[5] A lack of resources and inadequate insurance further limit access to care. About one-third of rural childbearing women live below the poverty level--5 percent more than in urban areas--and about 4.7 million rural families have no health insurance of any kind.[6] Although recent Medicaid expansions have increased the number of pregnant women who are eligible for coverage, States have found that many obstetrical providers are unwilling to accept Medicaid-enrolled clients.'

Rural Community Health Centers: Community health centers (CHCs) are key providers of perinatal services to high-risk women in the nation's rural areas. The CHC program was established in 1965 to meet the comprehensive health needs of the nation's medically undersexed. Federal administration of the program was consolidated in 1975 under Section 330 of the Public Health Service Act. In 1991, PHS funded 514 centers, 60 percent of which were located in rural areas. There are roughly 1,380 medically underserved rural areas, however, and many of these are not seined by centers; about 2,100 counties in the United States still have provider shortages.[8] More than one-third of the States have 5 or fewer community health centers.[9] In 1992, PHS funded a total of 549 centers.

The Federal government supports the services provided by community health centers through PHS Section-330 grants as well as through Medicare and Medicaid reimbursements, Maternal and Child Health grants, PHS Section-329 and -340 grants for migrant workers and the homeless, the National Health Service Corps, the Supplemental Food Program for Women, Infants, and Children, and the Rural Health Clinic Program.

In recent years, funding for the centers has increased,[10] and several initiatives have been implemented to expand center services and improve access to care. These include: supplemental funding through the Comprehensive Perinatal Care Program (CPCP), expanded Medicaid coverage for pregnancy care, increased Medicaid reimbursement for center services through the Federally Qualified Health Center provisions of the Omnibus Budget Reconciliation Acts of 1989 and 1990, and Healthy Start grants to support community coordination of perinatal care. (For more information on Federal programs see appendix A.)

Little information is available, however, on the extent to which centers are able to address the perinatal care needs of the women they serve. A clear understanding of the centers' current capacity to provide perinatal care is vital to further planning and program design. In this report, we examine recent trends in the capacity of rural centers to provide these services.

COMPANION REPORTS

This is one of three reports on the capacity of the community health centers to provide perinatal care. Another report, *The Perinatal Service Capacity of the Federally Funded Community Health Centers: Urban Centers* (OEI-01-90-02330) examines recent trends in the perinatal care capacity of urban community health centers.

The third report, *The Perinatal Service Capacity of the Federally Funded Community Health Centers: An Overview* (OEI-01-90-02332), summarizes and compares data on the perinatal care capacities of the urban and rural centers. It also presents information on two areas of special policy interest: Medicaid reimbursements to CHCS and CPCP funding of the centers.

That report identifies four major constraints that limit the perinatal care capacity of the community health centers. To enable the centers to meet increasing demand for services, these limitations must be addressed in the near term by a cooperative effort involving government at the Federal, State, and local levels, as well as non-governmental organizations. That report offers a recommendation that the Public Health Service (PHS) and the Health Care Financing Administration (HCFA) work with the Assistant Secretary for Planning and Evaluation (ASPE) to draft and implement a plan of action that addresses the identified limitations. The report also includes comments received from PHS, HCFA, and ASPE on the draft reports.

METHODOLOGY

This report is based on information gathered from a mail survey of rural community health centers; a site visit to one rural center; a telephone interview with another center; discussions with PHS administrators, State officials, and infant health experts; and a review of the relevant literature and PHS data.[11]

We sent the mail survey to all community health centers receiving Section-330 funds as of June 1991. Of the 302 rural centers, 253 (84 percent) responded. Our findings are based primarily on the responses of those 202 rural centers (67 percent of all rural centers) that offered perinatal services on site during the period 1988-91. (See appendix B for detailed methodology.)

Our review was conducted in accordance with the *Interim Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

FINDINGS

THE CAPACITY OF RURAL **COMMUNITY** HEALTH **CENTERS** TO **PROVIDE PERINATAL CARE HAS INCREASED IN SEVERAL RESPECTS SINCE 1988.**

- ***The* number *of prenatal clients served*** *by the* ***centers*** *rose 20* ***percent*** *between 1988 and* ***1990, from an average of 261*** *per center to* ***312. The number of births*** *to* ***center clients rose*** *21* ***percent*** *during the same* ***period, from an average of*** *194* ***per center to*** **235. Survey *respondents reported a total*** *of* ***52,597 prenatal clients and 36,316 births in*** Iwo.

Sixty-three percent of the centers reported that the size of their prenatal client caseloads grew between 1988 and 1990 (see figure 1). Caseloads grew more at those centers that served smaller caseloads in 1988, those that did not receive Comprehensive Perinatal Care Program (CPCP) funding, and those that seined prenatal client populations that were more than half Medicaid-enrolled in 1990.[12]

Figure 1
Average Number of Prenatal **Clients**
1988.1989, and 1990

Source: OIG Survey of Rural Common Health Centers, June 1991.
N-151

Caseloads grew 173 percent between 1988 and 1990 at centers that served fewer than 75 clients in 1988, 23 percent at centers that served between 75 and 249 clients, and 11 percent at centers that served 250 or more prenatal clients.[13]

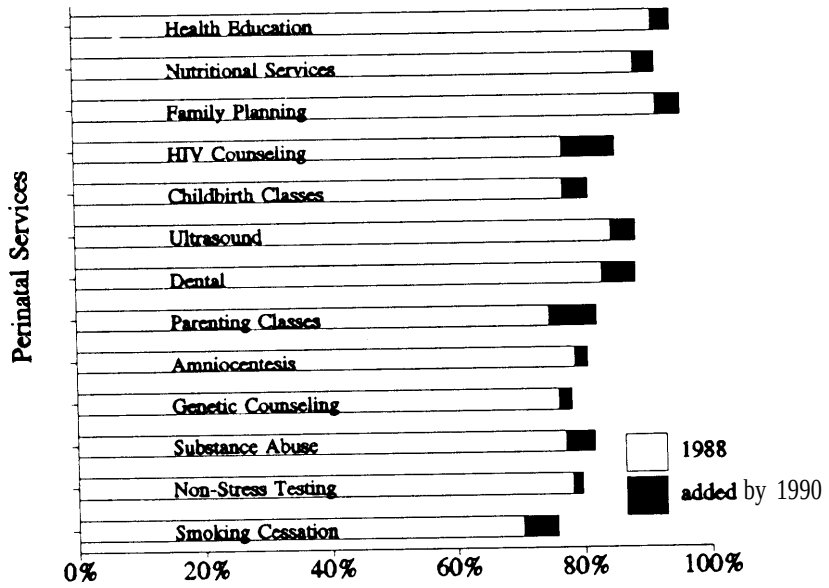
Caseloads grew 25 percent at centers that did not receive CPCP grants, and 18 percent at centers that did receive these grants. The average caseload size, however, was larger at CPCP-funded centers. 14 Caseloads grew 28 percent at centers in which more than half of the perinatal population was Medicaid-enrolled in 1990, and 12 percent at centers in which less than half was Medicaid-enrolled. The average caseload size, however, was smaller at centers with perinatal populations that were more than half Medicaid-enrolled in 1990.[1s]

- ***The range of perinatal services** increased at 61 **percent of centers. The services added at the largest number of centers were HIV testing and counseling, smoking-cessation programs, and classes in parenting and childbirth.***

Medical and Health Promotion Services: Between 1988 and 1990, there was an increase in the percentage of centers providing each of a representative range of perinatal medical and health promotion services, either on site or off site through paid referrals or contracts.[16] HIV counseling and testing and parenting classes were added at the largest percentage of centers (see figure 2).

Figure *2*

Percentage of Centers that Provided each **Perinatal** Service Either On Site **or Off Site,** 1988 and 1990



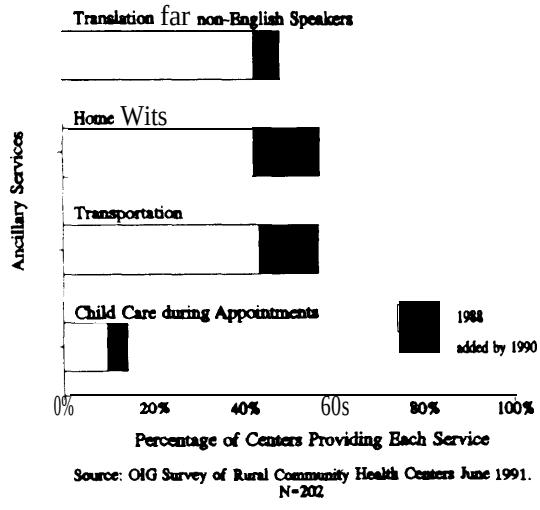
Source: OIG **Survey of Rural Community** Health Center% June **1991.**
N=202

Services on site: At the same time, 42 percent of the centers added at least 1 medical or health promotion service on site. The services added on site at the largest number of centers were family planning, health education, and nutrition services. In 1990, more than 80 percent of centers offered each of these services on site (see appendix C for survey responses).

- ***The range of ancillary services--such as home visiting and transportation--increased at 28 percent of the centers.***

Twenty-eight percent of the centers added at least one service that facilitates access to perinatal care between 1988 and 1990.[17] Home-visiting services were added at the largest percentage of centers, and child care during appointments was added at the smallest percentage of centers (see figure 3).

Figure 3
Percentage of **Centers that Provided**
Each **Ancillary Service,** 1988 and 1990



Source: OIG Survey of Rural Community Health Centers June 1991.
N=202

- ***Forty-eight percent of centers offered on-de assistance with enrollment in Medicaid in 1990, an increase from 25 percent in 1988. Fifty-three percent of centers offered on-de assistance with enrollment in the Supplemental Food Program for Women, Infants, and Children (WIC) in 1990, an increase from 49 percent in 1988.***

A larger percentage of CPCP-funded centers than other centers provided on-site assistance with WIC enrollment. In 1990, 62 percent of the CPCP-funded centers provided assistance with WIC, while only 46 percent of other centers did so.[18]

There was no significant difference between the percentage of CPCP-funded centers and other centers that offered on-site assistance with Medicaid enrollment in 1990. Between 1988 and 1990, however, on-site assistance with Medicaid enrollment was added at a larger percentage of CPCP-funded centers.[19]

- ***Total revenues for the rural centers increased 20 percent between 1988 and 1990; this includes a*** 19 ***percent*** increase in ***Section-330 grant funding and a 42 percent increase in Medicaid reimbursements. Thirty-eight percent of survey respondents reported that the amount of funding available for perinatal services has increased since 1988.***

The PHS Section-330 grant represented 44 percent of total revenues for these centers in both 1988 and 1990. Medicaid reimbursements amounted to 11 percent of total revenues in 1988 and 13 percent in 1990.[20]

Increased funding for perinatal services was correlated with increased capacity. Seventy-two percent of centers that reported increased funding for perinatal services also reported increased capacity, while only 40 percent of those that reported a decrease or no change in perinatal funding also reported increased capacity.

Several centers noted that additional revenues, especially through the CPCP, enabled them to enhance their perinatal services. One administrator illustrated the potential impact of the supplemental revenues when he explained: "Our CPCP funding began in 1990. We got an additional family practitioner that year. Now we have two providers instead of just one." Another center further demonstrated the possible benefits of the funding, reporting greatly expanded services through the "addition of a case manager, of an obstetric specialist, and of a double-wide trailer to house an obstetric clinic--a much improved space."

DESPITE THESE INCREASES IN CAPACITY, DEMAND FOR PERINATAL SERVICES AT RURAL CENTERS HAS CONTINUED TO GROW AND MANY CLIENTS STILL DO NOT RECEIVE THE OPTIMAL COORDINATED PACKAGE OF CARE IN A TIMELY FASHION.

- ***Twenty percent of the centers reported that they provided no perinatal services on site between 1988 and 1991. Our study did not examine the extent to which these centers made*** *alternative* ***perinatal*** *care* ***arrangements for their clients.***

Fifty-one centers reported that they did not offer perinatal care between 1988 and 1991.[2]* Forty-seven percent of these indicated that they would like to provide perinatal services but that a lack of obstetric providers or hospital privileges prevented them from doing so. Illustrating these circumstances, one administrator wrote that, "due to lack of support services for our physicians and the lack of available delivery facilities, all perinatal clients are referred to four surrounding county health departments."

Many centers indicated that they provide referral and support services, but the distances some patients must travel for such care are considerable. Several centers said that they refer women more than 50 miles away. For example, one administrator

remarked that "closure of a hospital unit 50 miles away forces us to send all obstetric patients 100 miles away." Another remarked that "the local hospital closed in 1987. We now refer women to the local health department and hospital 26 miles away."

According to a recent survey, women who traveled outside of their communities for perinatal services were more likely to experience complications during delivery, stay longer in the hospital, and need more expensive neonatal services.[22] In addition, a prior OIG survey of rural hospital closings found that people who must travel more than 10 miles for health care experience limited access to medical and emergency services.[23]

- Demand ***for services increased at*** 75 ***percent of the centers;*** 42 ***percent of these centers reported their capacity to meet this growing demand either decreased or remained the same.***

An additional 16 percent of the centers reported that demand for services had not changed since 1988. Of these, 19 percent reported that capacity to meet demand had decreased.

Illustrating these statistics, a center noted that between August 1989 and July 1990, "the floodgates were opened and any prenatal patient who wanted care from our CHC was seen and delivered. This caused problems, however, because the doctor was absent from the clinic too often, and eventually the program had to be curtailed." Another center reported that "the demand for perinatal care has increased but the number of our health providers has remained the same, not allowing us to see more perinatal patients;" and another stated that "between 1988 and 1990 the number of prenatal women seeking care at our clinic continually increased. By mid-1990 the demand for care exceeded our capacity. Presently the demand for perinatal care is nearly double our capacity."

Several factors account for increasing demand at centers. Fifty-three percent of the centers reported that Medicaid eligibility expansions had seriously increased demand for perinatal services, and 46 percent reported that Medicaid presumptive and continuous eligibility provisions had done Sow

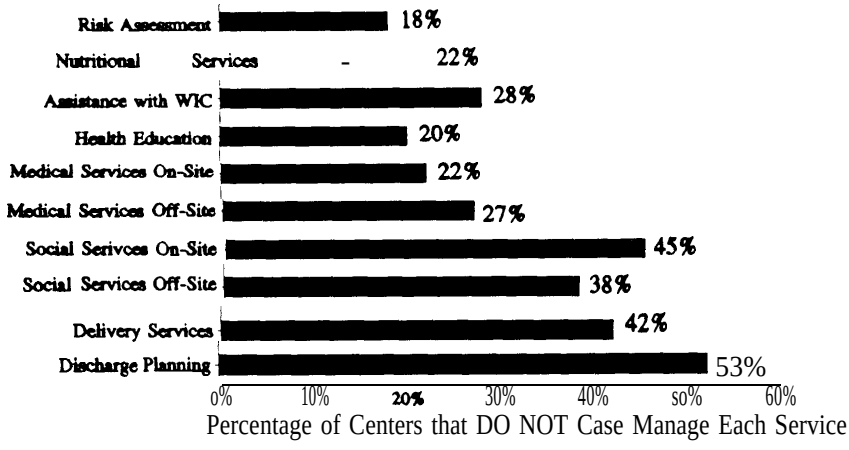
Decreases in the availability of private health care and in private physician participation in Medicaid have also increased demand at centers. An administrator explained that "fewer providers accept Medicaid, while at the same time eligibility has increased resulting in higher demand." Another remarked that demand at his center increased when the private obstetric provider left the area. These comments are consistent with reports from other centers.

- ***Sixty-eight percent of the centers reported that they do not coordinate, as part of their perinatal*** case-management ***efforts, all of the health and d services recommended by the Public Health Service. This may, in part, reflect variations in the definitiö n of "case management" among centers.***

According to the PHS, perinatal care should include risk assessment; health promotion; and medical, nutritional, and psychosocial services and follow-up.[25] To maximize the accessibility, quality, and comprehensiveness of services, the PHS requires centers to coordinate care through case management.[26]

Most centers provide some of the services recommended by the PHS, but 68 percent of them do not coordinate all of these services as part of a comprehensive case-management system. Fifty-three percent reported that they did not coordinate discharge planning and 42 percent reported that they did not coordinate delivery services as part of their case-management efforts (see figure 4).

Figure 4
Percentage of Centers that DO NOT Case Manage Each **Perinatal** Semite



Source: 01(3 Survey of Rural community Health Centers, June 1991.
N-202

There is no commonly accepted definition of what case management entails; centers may coordinate the delivery of services and not refer to such coordination as case management.

Nonetheless, 29 percent of the centers reported that limited case management seriously constrains their capacity to provide comprehensive care; and 8 percent reported that it has become a greater problem since 1988. Thirteen percent reported that they provided no case management at all.

Centers reported several problems that indicate inadequate coordination of care. The timely transfer of medical records to delivery facilities is a problem at 17 percent of the centers, and the transfer of records to other facilities at 16 percent. Further, centers reported that they do not reschedule appointments for an average of 40 percent of perinatal clients who miss them. Follow-up care is also a problem: on average, 26 percent of each center's prenatal clients and 28 percent of their infants did not receive follow-up care at the centers within the first 8 weeks after birth in 1990.[27]

The CPCP was intended, in part, to support centers' case-management efforts. CPCP-funded centers were significantly more likely than other centers to provide case management for all the services recommended by the PHS. Fifty percent of CPCP-funded centers included all of these services in their case-management efforts, while only 14 percent of other centers did so. Eighteen percent of CPCP-funded centers cited limited case management as a serious limitation to care, while 47 percent of other centers reported the same concern.

- ***On average, 59 percent of each center's prenatal clients entered care in the first trimester of pregnancy in 1990. Nationally, 76 percent of all women, 62 percent of minority women, and 58 percent of women in Healthy Start project areas entered care cluing the first trimester.***[28]

The PHS had set a goal to achieve 90 percent first-trimester enrollment for all women by the year 1990. This goal was not met, and has now been set for the year 2000. On average, 31 percent of each center's 1990 prenatal clients did not enter care until the second trimester and 10 percent did not enter until the third. This compares with 1989 national rates of 18 percent of women entering care in the second trimester and 4 percent in the third.[29]

Although the CPCP was intended, in part, to encourage earlier entry into care, responses to our survey indicate that there was no significant difference between CPCP-funded centers and other centers with regard to the percentage of clients who entered care in the first trimester in 1990. Our study does not allow a comparison of CPCP grant recipients and other centers with regard to trends over time in first-trimester entry into care.

According to several center administrators, transportation problems hinder early entry into care. Thirty percent of centers noted that patients had difficulty traveling to the center and to delivery sites. One administrator explained the difficulties caused by rural isolation: "Even though we improved access through multiple sites, there are many clients who have no transportation. . . . The fact that our delivery site and after-hours clinic is located 30 to 60 miles away from our clients leads to a high degree of stress and anxiety for them."

Twenty percent of centers reported that poverty and cultural barriers also hinder early entry into care. Several noted that clients often do not recognize the importance of prenatal care.

- ***On average, 18 percent of each center's first-trimester enrollees received fewer than 9 prenatal visits. Our study did not examine the extent to which these patients may have received care elsewhere.***

The American College of Obstetricians and Gynecologists recommends that women entering prenatal care in the first trimester receive a minimum of 9 visits.[30] On average, however, 18 percent of each center's first-trimester enrollees did not receive at least 9 prenatal visits in 1990.

Although the CPCP was intended, in part, to encourage more prenatal visits, survey responses indicate that there was no significant difference between CPCP-funded centers and other centers with regard to the percentage of first-trimester enrollees who received at least 9 visits in either 1988 or 1990.

Centers reported that transportation problems and poor education prevent women from making and keeping a sufficient number of prenatal appointments. Some centers have begun offering gifts to encourage women to enter care early and attend all scheduled appointments; one center offered $25 to clients who kept all of their perinatal appointments.

- ***Thirty-eight percent of centers do not offer prenatal appointments at times convenient for working women.***

In ***1990, 38*** percent of the centers provided no scheduled prenatal appointments in the early morning, in the evening, or on Saturdays. Such restricted appointment hours may force working women to choose between work and prenatal care.

Twenty-one percent of the rural centers have waiting times of two to four weeks for initial prenatal visits and three percent have waiting times for initial visits of more than one month. Long waits for prenatal appointments can have adverse results. If a woman tests positive for pregnancy in her second month and then must wait four weeks for her first prenatal appointment, she may enter care in her second trimester. The implications of such waits are more problematic when pregnancy is detected later and when the mother is at high risk, as many center clients are.

In addition, 13 percent of the centers reported that office waiting times have grown longer since 1988. Long waiting times at the centers may discourage women from making and keeping appointments,

RURAL CENTERS IDENTIFIED SEVERAL MAJOR CONSTRAINTS THAT SERIOUSLY LIMIT THEIR CAPACITY TO PROVIDE PERINATAL CARE.

- Medical ***staff shortages,*** in part as ***a result of cuts in the National Health Service Corps in the 1980's, present serious problems at*** 67 ***percent of centers.***

Although the average number of prenatal clients increased about 20 percent at centers, the average number of full-time-equivalent obstetricians, family physicians, and certified nurse midwives decreased 1 percent from 1988 to 1990. (See appendix C for survey responses.)

Additionally, 52 percent of the centers reported that at least 1 obstetrician, family-physician, or certified nurse-midwife position was currently vacant (see table 1), and 28 percent reported that at least 1 of these positions had been vacant for longer than 1 year. Thirty-nine percent of the centers also reported that medical staff shortages have become more severe since 1988, and 32 percent cited high medical staff turnover as a serious problem.

Table 1
Percentage of Centers Reporting at Least One Clinical Provider Position Vacant[31]

Staff Position	Currently vacant	Vacant more than six months	Vacant more than one year
Obstetrician-Gynecologist	21%	17%	10%
Family Physician	39%	33%	19%
Nurse Midwife	13%	10%	5%

Source: OIG Survey of Rural Community Health Centers, June 1991
N =202

Many centers reported that current staffing levels are insufficient to meet client needs. One center noted that "the demand for services continues to grow, but with no additional providers, the demand is not met with a corresponding supply." Another complained that, despite "incredible population growth in the area, the provider population isn't increasing."

Of those centers that have reduced perinatal services in recent years, a large number cited staffing problems as the primary cause: one noted that its "decrease in perinatal services is proportional to a decrease in providers;" and another that its recent loss of an obstetrician "has definitely hampered our ability to provide perinatal services."

Recruitment and Retention Problems: Centers have historically faced serious problems recruiting and retaining medical staff. The work is demanding and wages and benefits are generally not comparable to those in the private sector. A shortage of staff means more frequent on-call rotations, which in turn makes a center less attractive to prospective employees. Insufficient support from the wider medical establishment also contributes to reluctance on the part of providers to accept positions at centers where they might not be assured staff privileges at local hospitals or adequate backup from local providers. Some centers cited unattractive clinic

establishment also contributes to reluctance on the part of providers to accept positions at centers where they might not be assured staff privileges at local hospitals or adequate backup from local providers. Some centers cited unattractive clinic facilities and poor client populations as barriers to recruitment efforts.

Recruitment efforts at many rural centers are further hindered by their geographic isolation. Some providers are apprehensive about working in small communities where they will have little support from and contact with a broader medical establishment. One center administrator reported great difficulty convincing prospective employees that the community was "not the worst place in the world to work, play, and live." Such recruiting challenges were reported by other administrators with whom we spoke.

A limited supply of providers further exacerbates recruitment efforts. As one hospital administrator explained: "Without a supply of trained practitioners from which to draw, the incentives created by many communities in the form of buildings, loan forgiveness, etc., are largely futile. Similarly, program grant monies are only of use when the practitioners are available." Other centers echoed this view. One administrator reported that his center had been working with a local hospital to jointly recruit an obstetrician, but they had not yet met with success; another noted that, in attempting to replace a physician who had just left the center, they had "used search firms, State offices, and other agencies and individuals to find a replacement, all to no avail."

National Health Service Corps: Centers have historically relied upon the NHSC for a large percentage of their providers, but this program experienced major funding cuts during the 1980's. (See appendix A for more information.) Center administrators reported that they have often been unable to retain corps providers beyond their obligated terms of service and that they have found it difficult to replace these providers. Exemplifying problems that the centers encounter retaining NHSC physicians, one center reported that it had lost an NHSC obstetrician to "buy-out by a private hospital."

Staffing **Models**: Most rural centers rely more heavily on family physicians than obstetricians. Centers report significant problems, however, recruiting family physicians generally that are willing to provide obstetric care. One center administrator

For those centers that are interested in employing obstetricians, recruitment is often an insurmountable challenge because of the high salaries and insurance premiums they require. One administrator explained the underlying economic dynamic and its impact: "When a scarcity of anything exists, it becomes a seller's market. Obstetricians can name their price and structure their work in accord with their preferences. The strain and stress that this places on the CHC can easily be underestimated."

- ***The cost of medical malpractice insurance has been a serious drain on resources at 55 percent of the centers.***

Twenty-four percent of the centers indicated that the cost of medical malpractice insurance has become a more serious limitation since 1988. A substantial increase in commercial medical liability insurance rates and cutbacks in the National Health Service Corps have resulted in dramatically increased expenditures on medical liability coverage for all of the centers. In 1990, insurance premiums amounted to an estimated 10 percent of all centers' total Federal grant funding--or 4.4 percent of center revenues.[32]

These costs have made it difficult for centers to expand staff, since scarce funds must be spent on insurance instead of salaries. Centers that contract for care have had difficulty paying the rising wages necessary to meet the insurance costs of private physicians. One center reported that it has been unable to obtain coverage at any cost.

The variety of medical malpractice problems is exemplified by comments from three centers. One center reported that its perinatal services had been discontinued due to "a lack of funding for excessively high malpractice premiums." Another center noted that its malpractice insurance carrier had threatened to cancel coverage for the entire clinic if the center did not suspend its contractual agreement with a private obstetrician. Still another reported that, although it had been able to locate providers willing to work at the center, it was unable to arrange liability coverage.

In late 1992, Congress took initial steps to address this problem by passing legislation that extends medical malpractice liability protection under the Federal Tort Claims Act (FTCA) to health care providers at the centers.[33]

- ***Seventy percent of centers report serious problems stemming from Medicaid policies and procedures--such as a burdensome application process, low reimbursement rates, a limited range of covered services, or limited eligibility.***

On average, 67 percent of each center's perinatal clients were enrolled in Medicaid in 1990.[34] Despite recent changes in the Medicaid system intended to increase access to care, however, many Medicaid-related factors continue to hinder the centers' ability to provide comprehensive, timely care (see table 2).

Table 2 Percentage of Centers Citing Each of the Following Medicaid Factors as a Serious Limitation	
Burdensome application procedures	52%
Inadequate reimbursement rates	52%
Restrictive eligibility criteria	44%
Limited range of covered services	4170
Slow reimbursement process	39%

Source: OIG Survey of Rural Community Health Centers, June 1991
N=202

Application Process: According to a prior OIG report, only 26 States had implemented presumptive eligibility as of June 1991.[35] Our research indicates, however, that even some States that had adopted this option had not begun to use it aggressively. Further, according to the centers, a number of State Medicaid agencies had not begun outstationing eligibility workers on site.

Reimbursement: The Federally Qualified Health Center (FQHC) provisions of the 1989 and 1990 omnibus Budget Reconciliation Acts called on the States to begin paying cost-based reimbursement to CHCS as of April 1, 1990. According to PHS records, however, only 27 States and the District of Columbia had begun paying higher FQHC-Medicaid rates as of May 1991. Most of these payments were at interim rates.[36] Since our survey, additional States may have begun to implement these provisions.

An administrator at the site we visited noted that the State had begun reimbursing that center at FQHC rates, but that even these new rates did not fully cover the cost of care. Concerns about continuing inadequate reimbursement rates were voiced by several survey respondents. Centers also reported long delays between the provision of services and the receipt of payment from Medicaid.[37]

Some centers may already have been receiving higher Medicaid reimbursement rates as a result of the Rural Health Clinic Act of 1977. To qualify for higher rates under this act, a center must be located in a rural area that has a shortage of either health professionals or services. Additionally, the center must be staffed by one or more eligible certified nurse midwives, nurse practitioners, or physician assistants whose practice is within the scope of State law and regulations.[38] (See appendix A for more information on Federal programs that support perinatal care at the centers.)

Eligibility Many centers reported that Medicaid eligibility requirements are still too restrictive. According to OIG research, three States had not yet dropped an asset test for eligibility.39 Several centers indicated, however, that eligibility expansions have

resulted in increased client caseloads. Consistent with several reports we received, staff at one center noted that the number of women on Medicaid had risen as the local economy had deteriorated.

- ***On average, 17 percent of each center's perinatal clients were uninsured in 1990.***

At 25 percent of the centers, 25 percent or more of the perinatal clients were uninsured. At 9 percent of the centers, more than 50 percent of the clients were uninsured. These clients received services at reduced rates, according to a sliding scale.

- ***Seventy-three percent of*** the ***centers report serious problems stemming from inadequate coordination of perinatal services in the community, a lack of other local providers willing to treat uninsured and publicly insured women, difficulty arranging obstetric backup for center staff and for consultation for high-risk clients, or difficulty obtaining hospital privileges for center staff.***

Community Coordination: The PHS expects that centers be "active participants in their community's health care system. . . . This typically means fostering partnerships and participating in consortia and task forces addressing the area's health care issues." These consortia should include local health departments, social services departments, hospitals, and other public and private health care providers.[40]

Forty-two percent of the centers, however, do not participate in perinatal care consortia. Centers reported wide differences in consortia memberships (see table 3).

Table 3
Percentage of Centers Reporting the Participation of Each of the Following in a Community Perinatal Care Consortium

Local health departments	42%	Other health clinics	22%
Private-practice physicians	34%	Nonteaching hospitals	21%
State health departments	24%	Local schools	16%
Government social services	24%	Teaching hospitals	16%
Nonprofit groups	23%	Other	4%

Source: OIG Survey of Rural Community Health Centers, June 1991
N =202

Eighty-four percent reported that their consortium activities do not include teaching hospitals, 84 percent that they do not include local schools, 79 percent that they do

not include nonteaching hospitals, and 76 percent that they do not include State health departments.[41]

The Local Medical Establishment: Fifty-eight percent of the centers reported that a lack of other local providers willing to treat low-income and uninsured women seriously limits the comprehensiveness of center care; 30 percent reported that this shortage has become a more severe problem since 1988.

The PHS notes that "a key element in the quality and continuity of care is the integration of the clinical staff into the larger medical community . . . to assure follow-up of referred care and the availability of timely and quality consultations."[42] Centers reported, however, that they face serious difficulties arranging both backup and referrals. Forty percent of the centers reported serious difficulty arranging obstetric backup for certified nurse midwives; 34 percent reported such problems for family physicians. Thirty-six percent reported that difficulty arranging consultation for high-risk clients is a serious limitation.

A number of centers reported that there are simply no other providers to whom women can be referred. A variety of related problems were reported by center staff. One center noted that the closest obstetrician serving Medicaid patients was 50 miles away, while another reported that women had to travel 120 miles for high-risk obstetric consultations. Another center reported that, because the "local private obstetricians won't cover our family physician for anything but very low-risk pregnancies, we must turn away a high number of patients who would want care at our facility." Another noted that "women at or below the poverty level couldn't get appointments with private physicians in our area." Another center director cited "turf consciousness" on the part of local private-practice obstetricians as a major problem. These doctors refused to provide backup for center staff and would only deliver women who came directly to them for care.

Hospital Admitting Privileges:[43] The PHS recommends that, "to assure continuity of care, center physicians should have admitting privileges and medical staff membership at one or more hospitals."[44] Centers, however, reported many difficulties arranging admitting privileges. Twenty-one percent reported a decrease between 1988 and 1990 in the percentage of staff providers with such privileges.

Thirty-one percent reported that difficulty obtaining admitting privileges for staff obstetricians, family physicians, or certified nurse midwives is a serious limitation to care. Twenty-nine percent of the centers cited difficulty obtaining privileges for certified nurse midwives as a serious problem. Fourteen percent cite serious difficulties obtaining privileges for center family physicians. For example, one administrator noted that the local hospital had recently extended delivery privileges to the center's family physicians--a first in that community--but the physicians are still unable to perform deliveries because they have been unable to arrange for obstetric backup.

Difficulties with admitting privileges have been compounded by more basic problems with the availability of hospital care in rural areas. Many centers have been adversely affected by rural hospital closings. Those rural hospitals that have remained open have experienced problems similar to those of CHCS in retaining obstetric staff and maintaining delivery services. Additionally, some hospitals are reluctant to provide care for poor women. One center explained the dynamic that leads hospitals to refuse poor clients: "The private for-profit hospital was unable to recoup the costs of indigent care they were providing for our patients and refused to continue delivery services for our county's indigent or Medicaid women, forcing us to close our program."

- Limited ***space seriously hinders the provision of services at 48 percent of the centers. In addition, limited collocation of services on site seriously restricts the comprehensiveness of care*** *at 28* ***percent*** *of the* ***centers.***

Twenty-three percent of the centers reported that inadequate space has become a more serious problem since 1988. Those centers that reported an increase in demand since 1988 were significantly more likely to cite limited space as having become a more serious limitation to care. Several centers remarked that, because clinical staff capacity has increased, "now space is a major barrier." Consistent with comments made by administrators across the country, one medical director noted that "the limited physical space of the current medical facilities prevents the center's two OB/GYN providers from providing care simultaneously."

Sixty-two percent of the centers reported that no other public organizations, aside from Medicaid or WIC, and no private groups provided services on site in 1990. Those centers that cited limited space as a serious problem were significantly more likely to cite limited collocation of services on site as a serious limitation.

CONCLUSION

Section-330-funded community health centers play an important role in the provision of perinatal care in rural areas across the country. In this report we have stressed three themes concerning their performance of this role.

First, the centers' capacity to provide perinatal services has increased substantially since 1988. In terms of the number of clients served, the range of services offered, and budgetary resources, the centers have demonstrated considerable growth.

Second, increased demand has accompanied the growth in capacity. As a result, many center clients still do not receive all the services recommended by the Public Health Semite. Limitations are particularly apparent in the scope of case-managed services offered by the centers and in the proportion of women who receive care during the first trimester of pregnancy.

Finally, there are several basic factors that constrain the centers' ability to provide more services in a more timely manner to more women. These constraints, documented in many previous studies as well as in ours, include staffing problems, Medicaid policies and procedures, medical malpractice insurance, relationships with other medical providers, and clinic space.

APPENDIX A

FEDERAL SUPPORT FOR PERINATAL CARE AT COMMUNITY HEALTH CENTERS

The Federal Government supports the perinatal services provided by community health centers both directly through Section-330 grants and indirectly through other mechanisms, including Medicare and Medicaid reimbursements, Maternal and Child Health grants, supplemental nutrition programs, and targeted funds. In recent years, several initiatives have been implemented to improve center perinatal services and the access of women to those services, including the following:

Medicaid Expansions: Congress has mandated several changes in the Medicaid program. These include (1) **expanded eligibility** States are now mandated to extend coverage to all pregnant women below 133 percent of the Federal poverty level, and have the option of extending coverage to women between 133 and 185 percent of the poverty level; (2) **continuous eligibility:** eligibility for coverage is now guaranteed throughout pregnancy and the postpartum period, regardless of income changes; (3) presumptive **eligibility:** eligibility for temporary coverage, limited to a maximum of 61 days for ambulatory services only, is based solely on self-reported income; (4) **expanded coverage:** case-management services are now reimbursable; and (5) **outstationing:** States must place eligibility workers at locations other than AFDC enrollment sites, including CHCs.

Federally Qualified Health Centers (FQHC): The Omnibus Budget Reconciliation Acts of 1989 and 1990 require State Medicaid programs to cover a core set of services provided by community health centers and to reimburse centers for the reasonable cost of covered services.

The Rural Health Clinic Program: The Rural Health Clinic Services Act of 1977 provides cost-related Medicaid reimbursement for services at rural centers in health manpower shortage areas or medically underserved areas. Qualifying centers are staffed by at least one certified nurse midwife, nurse practitioner, or physician assistant whose practice must be within the scope of State law and regulations. Until the passage of this act, these providers were not eligible for Medicaid reimbursement in some States. Because of several problems with regulation, certification, and reimbursement, however, far fewer centers than expected had availed themselves of reimbursement under the act.

The Comprehensive Perinatal Care Program (CPCP): In 1988, the PHS launched this initiative to improve birth outcomes by encouraging earlier entry into care and more perinatal visits. The CPCP provides supplemental funding for enhanced services, including improved outreach and case management. Funds were first awarded in 1989. In FY 1991, $33 million was provided in CPCP supplemental funding;[45] 51 percent of the rural respondents to our survey that offered perinatal services received

CPCP funding for at least 1 year between 1988 and 1991. In fiscal years 1992 and 1993, $44.7 million was appropriated for the CPCP.[46]

Healthy Start: In September 1991, HHS awarded competitive grants to 15 communities on the basis of their proposals for coordinated community programs to improve maternal and infant health care.

Several other ongoing Federal efforts play important roles in the centers' provision of perinatal care, including:

National Health Service Corps (NHSC): The PHS offers both scholarships and educational loan repayment to health providers who commit to work in designated Health Professional Shortage Areas for a given period. A large percentage of corps providers have traditionally worked in community health centers. After substantial cuts in program size in the early 1980's, the NHSC received increased funding in 1990; the number of loan repayment candidates is limited, however, and most scholarship recipients will not be available for service until the mid-1990's.

Supplemental Food Program for Women, Infants, and Children (WIC): The Department of Agriculture provides vouchers through this program to address the nutritional needs of pregnant and lactating women and their infants.

APPENDIX B

METHODOLOGY

We obtained information for this report through a mail survey of Section-330 grantees, a site visit to one center, telephone conversations with representatives of another center, a series of interviews, and a review of relevant literature and data.

Mail Survey We sent a mail survey of perinatal services to all Section-330 grant recipients in June 1991. Of 302 rural centers, 253 (84 percent) responded, including centers in every HHS region and every State and territory in which rural centers are located, with the exception of the U.S. Virgin Islands. A review of the geographic and demographic information that was available suggested no significant differences between respondents and nonrespondents.

Of the *253* rural respondents, 51 (20 percent) provided no perinatal services on site at all during the 1988-91 period. The numbers and percentages in the body of this report, unless otherwise noted, reflect the responses of those 202 centers (67 percent of all rural centers) that offered services on site in at least 1 year during the 1988-91 period.

Of the 202 respondents that provided services on site during the study period, 102 (51 percent) were CPCP-funded. For the purposes of this report, a CPCP-funded center is any center that received CPCP grant funding at any time, regardless of the year in which the initial grant was awarded.

Not all respondents provided complete information. We calculated trends presented in the body of this report from the responses of those centers that provided the relevant information for all years.

Unless otherwise noted, the statements in the body of this report that compare groups of centers (such as CPCP-funded and other centers) reflect statistical significance at the .05 level. In reporting responses to survey questions that solicited information on a scale, we combined responses of “moderately” and “substantially” and reported them as “seriously” or “serious.”

Site Visits: The study team conducted a site visit to one rural center in Ohio and its two satellite clinics. The team toured the facility and interviewed management and clinical staff. The study team also conducted a conference-call interview of administrative and clinical staff at a center in Mississippi. We chose these centers based on discussions with regional PHS staff and with consideration of geographic representation and community size.

Interviews: The study team held discussions with (1) officials in PHS'S Bureau of Primary Health Care (BPHC) (then called the Bureau of Health Care Delivery and Assistance), both in headquarters and in those regional offices responsible for the oversight of site-visit centers; (2) State primary care association and cooperative agreement staff in those States and regions in which site-visit centers are located; and (3) infant and community health experts, including staff at the Children's Defense Fund, the National Commission to Prevent Infant Mortality, and the National Association of Community Health Centers.

Literature and Data Review. The team reviewed extensive literature in the areas of infant and community health. The Public Health Service provided us with financial data that were collected from the centers through the Bureau's Common Reporting Requirements reports, and with financial and user data that were collected from CPCP applicants through the Perinatal User Profile reports.

APPENDIX C

RURAL SURVEY RESPONSES

The Office of Inspector General survey was mailed to 302 rural community health centers in May 1991. Of the *253 (84* percent) that responded, 51 provided no perinatal services on site during the 1988-91 period. Below we present the frequencies and mean responses for those 202 centers that did provide services at some point during this period. Not all centers answered every question. The number of respondents to each field (N) is indicated in parentheses as appropriate.

Any discrepancies between the responses below and the data presented in the body of this report are a result of the methods used in aggregating data and calculating trends. Please see appendix C for a discussion of statistical methodology.

Number of centers that offered perinatal services on site in each year:

1988: Yes=179 No=23
1989: Yes=182 No=20
1990: Yes=187 No=15
1991: Yes=185 No=17

A CASELOAD	1988	1989	1990
1. Please indicate:		MEAN (N)	
a. the number of women who received *prenatal* care at your center:	261 (157)	272 (174)	*278* (188)
b. the percentage of these clients who were high-risk as defined by your center:	27% (130)	29% (144)	29% (160)
c. the percentage of these clients who were low-risk, as defined by your center:	60% (129)	61% (146)	61% (154)
d. the number of births to your center's clients:	195 (139)	206 (161)	218 (167)
2. Of the women who gave birth in your service area, what percentage received prenatal care at your center?	45% (128)	46% (137)	49% (135)

B. COMMUNITY COORDINATION

1. Does your center currently participate in a consortium of perinatal care providers?

Yes=117 No=85 If YES, please continue.

2. Which of the following participate in the consortium? (Please check all that apply):

a. state health department:	49	f. nonteaching hospitals:	43
b. local health department:	85	g. private-practice physicians:	69
c. health clinics:	44	h. gov. social service agencies:	48
d. schools:	33	i. non-profit organizations:	47
e. teaching hospitals:	32	j. other:	8

3. On the last page of this survey, briefly describe the coordination of consortium activities and your center's involvement.

C. CLINIC SITES AND HOURS	1988	1989	1990
1. Please indicate the number of:		MEAN (N)	
a. clinic sites operated by your center:	2.5 (192)	2.6 (192)	2.6 (193)
b. clinic sites at which prenatal care was provided:	1.8 (199)	1.9 (198)	1.9 (l%)
2. On how many days a week did your center provide scheduled prenatal appointments either before 8AM or after 6PM?	0.97 (191)	0.99 (190)	1.1 (189)
3. On how many saturdays a month did your center provide scheduled prenatal appointments'?	0.59 (189)	0.62 (188)	0.66 (188)

D. Funding

1. Compared with 1988, the amount of funding available for perinatal care at your center in 1990 was:

Larger=76 Smaller=26 Unchanged=84

2. Please indicate the percentage of your center's 1990 perinatal clients covered by:

a. Private insurance:	13.1% (170)	c. Medicaid:	66.6% (167)
b. No insurance:	17.4% (172)	d. Other:	2.3% (175)

3. To what extent have the following factors resulted in increased demand for perinatal services at your center over the past three years?

	Not at all/ Somewhat	Moderately/ Substantially
a. Medicaid eligibility expansions:	72	107
b. Medicaid presumptive and continuous eligibility provisions:	82	93

E. PERINATAL OUTREACH

1. To which of the following groups does your center currently target specific perinatal outreach efforts? (Please check all that apply)

a. Teenagers:	170	c. Non-English speakers:	65
b. Substance abusers:	55	d. Other:	55

2. At which of the following locations does your center currently conduct perinatal outreach? (Please check all that apply)

a. Community centers:	81	d. Schools:	129
b. Shops:	20	e. Welfare offices:	68
c. Door-to-door in the neighborhood:	33	f. Churches:	48
		g. Other:	62

3. Through which of the following media does your center currently conduct perinatal outreach? (Please check all that apply)

a. Television:	27	d. Radio:	59
b. Newspapers:	111	e. Other:	48
c. Pamphlets:	151		

4. Compared with 198S, your center's outreach efforts in 1990 were:

Greater = 118 Smaller = 16 The **same** = 55

5. Compared with 1988, your center's outreach efforts in 1990 yielded:

More clients = 121 **Fewer clients** = 16 The **same number of clients** = 37

F. PERINATAL SERVICES

1. Please indicate which of the following services were provided by your center--either through contract, affiliation, or paid referral--please circle On. If these were offered on site, please circle On. If these were offered off site

	1988	1989	1990
a. Ultrasound:	On=42 Off=129	On=50 Off=124	On=56 Off=123
b. Amniocentesis:	on=9 Off=150	On=9 Off=152	on=13 Off=150
c. Genetic counseling:	On=36 Off=118	On=36 Off=120	On=37 Off=121
d. Non-stress testing:	On=36 Off=122	On=38 Off=120	on=45 Off=116
e. Dental care:	On=90 Off=78	On=85 Off=86	On=91 Off=88
f. Nutritional services:	On=150 Off=29	On=157 Off=25	On=167 Off=18
h. Health education:	On=168 Off=17	On=172 Off=13	On=181 Off=10
i. Birthing classes:	On=77 Off=79	On=84 Off=73	On=90 Off=74
j. Parenting/infant care classes:	On=76 Off=75	On=83 Off=73	On=102 Off=64
k. Family planning:	On=176 Off=10	On=176 Off=10	On=183 Off=10
1. Smoking cessation programs:	On=85 Off=57	On=84 Off=60	On=90 Off=63
m. Substance abuse treatment:	On=38 Off=118	On=34 Off=123	On=35 Off=130
n. HIV counseling/testing:	On=98 Off=58	On=113 Off=52	On=135 Off=38

2. Compared with 1988, the range of perinatal services offered by your center in 1990 was:

Greater=123 Smaller=24 Unchanged=49

3. Were perinatal clients enrolled on-site at the center in the following programs?

a. Medicaid:	Yes=51 No=139	Yes=72 No=119	Yes=97 No=100
b. WIC:	Yes=99 No=93	Yes=107 No=88	Yes=107 No=90

	1988	1989	1990
4. Did other government or private social service organizations provide services on-site at your center?	Yes=56 No=134	Yes=59 No=132	Yes=72 No=125
5. Did your center facilitate access to perinatal care by providing the following services?			
a. Transportation to and from appointments:	Yes=87 No=103	Yes=100 No=93	Yes=114 No=83
b. Translation for non-English speaking clients:	Yes=85 No=81	Yes=88 NO=80	Yes=97 No=71
c. Child care during center appointments:	Yes=19 No=171	Yes=20 No=172	Yes=28 No=165
d. Home visits:	Yes=85 No=106	Yes=101 No=92	Yes=115 No=81

G. STAFFING

	1988	1989	1990
1. How many full-time equivalents of each of the following provided perinatal services on-site at the center? (N =202)			
a. Obstetricians:	0.45	0.45	0.43
b. Family physicians:	1.44	1.40	1.41
c. Certified nurse midwives:	0.19	0.18	0.22
d. Nurse practitioners:	0.56	0.59	0.65
e. Physician assistants:	0.39	0.42	0.45

2. Please indicate below: (i) the number of your perinatal provider positions which are **currently** vacant; (ii) the number which have been va-cant for more that six months; and (iii) the number which have been vacant for more than one year. (N=202)

	(i) Number of vacancies	(ii) More than six months	(iii) More than one year
a. Obstetrician:	0.25	0.21	0.12
b. Family physician:	0.54	0.47	0.47
c. Certified nurse midwife:	0.13	0.10	0.05

3. Compared with 1988, the percentage of your perinatal providers with admitting privileges at local hospitals in 1990 was:

Larger=49 Smaller=21 Unchanged=97

H. TIMING OF CARE

1. Please indicate the percentage of your center's 1990 prenatal clients who entered care in the:

a. First trimester: 58.7% (181)
b. Second trimester: 30.8% (180)
c. Third trimester: 9.9% (163)

	1988	1989	1990
2. Of those clients who entered care during the first trimester, and carried to term, what percentage received at least nine prenatal medical visits?	79.1% (113)	79.8% (124)	81.9% (147)
3. What percentage of your center's prenatal clients returned for postpartum visits during the first eight weeks after delivery?	69.3% (121)	72% (142)	73.9% (161)
4. What percentage of all infants born to center prenatal clients returned for newborn visits during the first four weeks after birth?	66.3% (121)	69.7% (138)	71.8% (158)

I. APPOINTMENTS FOR CARE

1. If a woman called today to schedule a pregnancy test, how long would she wait for an appointment?

Pregnancy tests are offered on a walk-in basis: 123

Less than one week: 66
One-two weeks: 8
More than two weeks: 2

2. If the pregnancy test were negative, would she be referred to family planning services?

Yes=178 No=19

3. If the pregnancy test were positive, how long would she wait for her first prenatal visit?

The first perinatal visit is provided in conjunction with the pregnancy test: 33

Less than two weeks: 118
Two-four weeks: 42
One-two months: 2
More than two months: 3

4. Compared with 1988, waiting room waiting times at perinatal appointments in 1990 were generally:

Shorter=65 Longer=26 The same=94

J. CASE MANAGEMENT

1. Does your center currently provide case management to promote the coordination of services for perinatal clients?

Yes=176 *No=26* If YES, please continue.

2. Case management at your center is primarily conducted by (please check only one):

The client's primary care doctor:	28
The client's primary care nurse:	14
The appointments secretary:	2
A multidisciplinary team:	54
A center employee whose main responsibility is case management for perinatal clients:	67
Other:	12

3. Case management at your center is provided for (please check only one):

All perinatal clients:	143
All high-risk perinatal clients:	21
Only certain groups of perinatal clients:	13

4. Case management of perinatal clients at your center comprises (please check all that apply):

a. Risk assessment:	165
b. Planning of care:	162
c. Assessment of adequacy and appropriateness of services:	144
d. Client advocacy:	131
e. Contact with other organizations to arrange for services / schedule appointments:	163
f. Assistance with paperwork related to WIC, Medicaid, and other programs:	145
g. Discharge planning:	94
Coordination of:	
h. Medical services provided on-site at the center:	158
i. Medical services provided off-site:	147

Continued:

j. Delivery services:	118
k. Social services provided on-site at the center:	110
1. Social set-vices provided off-site:	126
m. Nutritional services:	158
n. Health education:	162
o. Other:	27

5. Compared with 1988, the percentage of all center perinatal clients case managed by your staff in 1990 was:

Larger = 126 **Smaller** = 14 Unchanged = 33

6. Does your center often encounter problems assuring the timely transfer of medical records to and from facilities to which perinatal clients are referred?

For delivery:	**Yes** = 35	**No** = 142
For other care:	**Yes** = 32	**No** = 141

7. Please estimate the percentage of cases in which your center contacts perinatal clients to reschedule missed appointments:

6 0 % (N = 158)

8. Please indicate the manner in which you contact clients to reschedule missed appointments (please check all that apply):

Mail = **149** **Phone** = **168** **Home visit** = 95 **Other** = 10

9. *Are* perinatal clients at your center routinely attended by either the same primary medical provider or the same provider team at each perinatal visit?

Yes = 168 No = 7

K. LIMITATIONS TO CARE Please indicate the degree to which each of the following factors limits your center's ability to provide perinatal services:

	Not at all/ Somewhat	Moderately/ Substantially
1. Shortage of medical staff	65	132
2. Shortage of nonmedical staff	138	48
3. High medical staff turnover:	127	61
4. High nonmedical staff turnover:	168	16
Difficulty obtaining admitting privileges at local hospitals for:		
5. obstetricians:	144	18
6. family physicians:	157	25
7. certified nurse midwives:	97	43
8. High cost of malpractice insurance:	82	102
Difficulty obtaining malpractice insurance for:		
9. obstetric providers:	135	35
10. all providers:	156	29
Difficulty arranging medical backup for:		
11. OB supervision of certified nurse midwives/ nurse practitioners:	88	59
12. OB supervision of family physicians:	110	57
13. coverage during center staff vacations, holidays, and weekends:	99	84
14. consultation for high-risk patients:	117	67
15. Limited relationships with local community and government organizations:	172	15
16. Lack of other providers in the community willing to treat uninsured or publicly insured women:	79	108
Non-acceptance of certified nurse midwives/ nurse practitioners:		
17. by the medical community:	103	62
18. by patients:	144	15
19. Inadequate center funding:	80	109
20. Difficulties related to funding obtained from many different sources:	104	76
Medicaid-related problems:		
21. slow reimbursement process:	114	72
22. inadequate reimbursement rates:	89	95
23. limited range of covered services:	107	75
24. restrictive eligibility criteria:	104	81
25. burdensome application procedures:	91	97
26. Limited case management:	127	58
27. Limited collocation of services:	131	50
28. Limited space:	98	91
29. Other	27	19

Which of these factors have become LESS **SERIOUS** or **MORE SERIOUS** limitations since 1988?

	More serious	Less serious
1. Shortage of medical staff:	40	13
2. Shortage of nonmedical staff	12	11
3. High medical staff turnover:	17	14
4. High nonmedical staff turnover:	5	12
Difficulty obtaining admitting privileges at local hospitals for:		
5. obstetricians:	6	10
6. family physicians:	6	10
7. certified nurse midwives:	6	10
8. High cost of malpractice insurance:	24	7
Difficulty obtaining malpractice insurance for:		
9. obstetric providers:	8	7
10. all providers:	7	8
Difficulty arranging medical backup for:		
11. OB supervision of certified nurse midwives/ nurse practitioners:	14	8
12. OB supervision of family physicians:	15	7
13. coverage during center staff vacations, holidays, and weekends:	22	9
14. consultation for high-risk patients:	17	7
15. Limited relationships with local community and government organizations:	3	20
16. Lack of other providers in the community willing to treat uninsured or publicly insured women:	2'7	9
Non-acceptance of certified nurse midwives/ nurse practitioners:		
17. by the medical community:	8	13
18. by patients:	3	14
19. Inadequate center funding:	24	11
20. Difficulties related to funding obtained from many different sources:	16	5
Medicaid-related problems:		
21. slow reimbursement process:	12	18
22. inadequate reimbursement rates:	13	23
23. limited range of covered services	10	17
24. restrictive eligibility criteria:	9	29
25. burdensome application procedures:	13	21
26. Limited case management:	8	22
27. Limited collocation of services:	5	16
28. Limited space:	23	11
29. Other	2	1

L CONCLUSION

1. Over the past three years, demand for perinatal care at your center has:

Increased = 152 **Decreased** = 15 Not changed = 32

2. Over the past three years, your center's capacity to address the demand for perinatal care in your service area has:

Increased = 104 **Decreased** = 52 **Not changed** = 42

OPEN-ENDED QUESTIONS: [Center responses are not included here]:

3. What are the three most significant barriers to delivering perinatal care that your center has faced in the past three years?

4. What special projects, initiatives, or programs has your center undertaken over the past three years to improve its ability to respond to perinatal care needs in your service area?

APPENDIX D

NOTES

1. National Center for Health Statistics (NCHS), 1992. The 1989 U.S. infant mortality rate was 9.8 deaths per 1,000 live births. The provisional rate for 1990 is 9.1 deaths per 1,000; and the provisional rate for 1991 is 8.9 per 1,000. These rates represent considerable improvement over the 1950 rate of 29.2, but the pace of improvement has slowed in recent years and has not been experienced equally by all segments of the population. According to the most recently published international data, the 1988 U.S. infant mortality rate for whites alone places the nation 17th lowest in the world, while the rate for blacks alone places it 36th. Native Americans and Puerto Ricans also have infant mortality rates considerably higher than the national average.

2. U.S. Public Health Service (PHS), *Healthy People 2000: National Health Promotion and Disease Prevention Objectives,* Washington, D.C., 1990, p. 366.

   PHS, *Caring for Our Future: The Content of Prenatal Care: A Report of the PHS Expert Panel on the Content of Prenatal Care,* Washington D.C., 1989, p. 2.

3. NCHS, "Advance Report on Final Natality Statistics, 1989," *Monthly Vital Statistics Report*, vol. 40, no. *8,* Supplement, December 12, 1991, p. 43. These 1989 data are the most current available.

   Alan Guttmacher Institute, *Prenatal Care in the United States, New* York, N. Y., 1987, vol. I, p. iv. Adequacy of care is a function of time of entrance into care and number of visits. During the period 1984-86, 24 percent of women entered care after the first trimester, 24 percent had fewer than 9 visits, and 34 percent received less than adequate care.

4. Bruce Behringer, President, National Rural Health Association; Executive Director, Virginia Primary Care Association; Testimony before the U.S. House Committee on the Budget Task Force on Human Resources, October 3, 1991, p. 1.

5. Laura Summer, *Limited Access: Health Care for the Rural Poor,* Center on Budget and Policy Priorities, Washington, D. C., 1991, p. 16.

   In September 1990, the American College of Obstetricians and Gynecologists (ACOG) reported that, as a result of the risk of malpractice, 12 percent of its members had discontinued their obstetric practices, 24 percent had reduced or eliminated services to high-risk women, and 10 percent had decreased the number of deliveries they performed. Average obstetric premiums rose 248 percent between 1982 and 1989. (ACOG, prepared by Opinion Research

Corporation, "Professional Liability and Its Effects: Report of a 1990 Survey of ACOG's Membership," Washington, D. C., September 1990.) The ACOG repeated this survey in September 1992, and found no statistically significant differences from the prior survey.

In addition, as of 1987, 64 percent of family physicians who once provided obstetric services had discontinued such care. (American Academy of Family Physicians, "Family Physicians and Obstetrics: A Professional Liability Study," 1987.)

6. March of Dimes, *Infant Survival in Rural America,* White Plains, N. Y., August 1991, p. 3.

Summer, pp. 27-29.

7. Deborah Lewis- Idema, *Increasing Provider Participation,* National Governors' Association, Washington, D. C., 1988, pp. 21-22. An increasing number of physicians who practice obstetrics are unwilling to accept low-income or Medicaid-insured patients because of high malpractice premiums and low Medicaid reimbursement rates.

Office of Inspector General (OIG), *Medicaid Expansions for Prenatal Care: State and Local Implementation* (OEI-06-90-0016), January 1992, pp. 8-9.

8. PHS, "HRSA'S Long-Range Plan to Improve Access to Primary Health Care for Underserved Populations." July 1990, unpublished, p. 10.

9. National Association of Community Health Centers, *Mothers, Infants, and Community and Migrant Health Centers*, Washington, D. C., December 1989, table 4.

10. Section-330 funding was $435 million in FY 1989, $457 million in FY 1990, and $478 million in FY 1991. (Health Resources and Semites Administration (HRSA) FY 1993 Justification of Appropriations, vol. 1, p. 63.)

For FY 1992, $532 million was appropriated. The FY 1993 appropriation is $559 million. (Bureau of Primary Health Care [BPHC] and the Assistant Secretary for Management and Budget [ASMB].)

11. The Public Health Service provided us with financial data that they collected from the centers through the Bureau's Common Reporting Requirements reports, and with financial and user data that they collected from CPCP applicants through the Perinatal User Profile reports.

12. Unless otherwise indicated, the differences between groups (such as CPCP grantees and other centers) that are noted in this report are statistically significant at the .05 level.

13. Centers that served fewer than 75 prenatal clients in 1988 served an average ot 32 in 1988 and 88 in 1990. Centers that served between 75 and 249 clients in 1988 seined an average of 149 in 1988 and 184 in 1990. Centers that served 250 or more clients in 1988 served an average of 562 in 1988 and 623 in 1990.

14. In 1988--before CPCP funds were distributed--those centers that eventually received CPCP funding served an average of 365 clients; the other centers seined an average of 134. In 1990, the CPCP-funded centers served an average of 431 clients; other centers served an average of 167.

According to an internal PHS draft report, "CPCP 1990 Data Report: Moving Ahead," CPCP-funded centers seined 33,938 pregnant teens in 1990, which they report is more than triple the number seined in 1988. Also according to this report, in 1989, CPCP-funded centers provided services to 13.4 percent of all pregnant teens age 15 or younger in the United States. PHS'S CPCP data, however, does not permit a comparison of CPCP-funded centers and other centers.

15. These centers served an average of 223 prenatal clients in 1988 and 286 in 1990. Centers with prenatal populations that were less than half Medicaid-enrolled served an average of 270 clients in 1988 and 302 in 1990.

16. Our survey inquired about the provision of a representative range of perinatal medical and health-promotion services: ultrasound, amniocentesis, genetic counseling, non-stress testing, dental care, nutritional services, health education, childbirth classes, parenting/infant-care classes, family planning, smoking-cessation programs, substance-abuse treatment, and HIV counseling/testing.

17. Our survey inquired about the provision of four services that facilitate access to care: translation. transportation, home visiting, and child care during appointments.

18. Some centers were able to complete enrollment on site. Other centers only distributed forms or provided assistance in completing them. In such cases, applicants had to complete the enrollment process at the appropriate State offices. Some centers completed all nutritional assessment and paper-work for WIC on site, but clients had to obtain vouchers at a different location.

19. There was a 126 percent increase in the number of CPCP-funded centers and a 44 percent increase in the number of other centers that provided on-site assistance with Medicaid enrollment. In 1988, 19 CPCP-funded centers and 18 other centers provided on-site assistance with Medicaid enrollment, compared with 43 CPCP-funded centers and 26 other centers in 1990.

20. Bureau's Common Reporting Requirements (BCRR) Database, BPHC, PHS.

This database contains self-reported financial and user data from Section-330 grantees. We derived the percentage increase in center revenues from data for those 214 rural centers (71 percent of all rural grantees) that provided financial data to BPHC through the BCRR form for the years 1988, 1989, and 1990. Some of these centers did not respond to our survey.

Total reported revenues for these 214 centers increased from $215 million in 1988 to $259 million in 1990. Public Health Service Section-330 grants to these centers increased from $95 million in 1988 to $113 million in 1990. Medicaid reimbursements to these centers increased from $23 million in 1988 to $33 million in 1990. These centers received additional revenues from MCH block grants, Public Health Service Section-329 and -340 grants, WIC grants, Title X grants, Title XVIII Medicare payments, Title XX payments, other third party payments, patient collections, State and local revenues, and donations.

21. We excluded these 51 centers from calculations of the statistics presented in the body of this report (see appendix B for detailed methodology).

22. Thomas S. Nesbitt, Frederick A. Connell, L. Gary Hart, and Roger A. Rosenblatt, "Access to Obstetric Care in Rural Areas: Effect on Birth Outcomes," *American Journal of Public Health,* July 1990, vol. 80, no. 7, pp. 814-819.

This study compared communities in which 67 percent or more of pregnant women traveled outside of their community for obstetric care (high outflow) and communities in which fewer than 33 percent of pregnant women travelled outside of their communities for obstetric care (low outflow). The survey found that women who lived in high-outflow communities had a 34 percent higher occurrence of complications during delivery and higher medical costs for themselves and their infants than those from low-outflow communities. Medical costs were twice as high overall for high-outflow communities ($2,103 versus $1,046), and four times as high for Medicaid patients ($4,627 versus $1,014).

23. OIG, *Effects of 1988 Rural Hospital Closures on Access to Medical Care* (OEI-04-89-00742), August 1990, pp. 4, 7.

Forty percent of residents who lived within 10 miles of a recently closed hospital, and for which a replacement was more than 10 miles away, said that they had a serious problem getting hospital care and attributed it to hospital closure. Similarly, 42 percent of those who had to travel more than 10 miles for emergency care reported a serious problem with access.

24. In reporting responses to survey questions that solicited information on a scale,

we combined responses of “moderately” and “substantially” and reported them as “seriously or “serious.”

25. PHS, *Caring for Our Future,* p. *2.*

PHS, *Healthy People 2000,* p. 366.

In our survey, we used the terms “health education” for “health promotion” and “social services" for “psychosocial services.”

26. BPHC, PHS, “Program Expectations,” (hereafter P.E.), May 1, 1991, p. 21. This document outlines both requirements of law and regulation, and departmental priorities for the centers.

BPHC, PHS, “Regional Program Guidance Memorandum 84-52,” May 15, 1984.

27. Inadequate insurance, limited financial resources, long waits for appointments, an inability to arrange child care, and time-consuming transportation all discourage women from returning for care. Some women may receive follow-up care from other providers, but it is unclear to what extent centers track these women after delivery.

28. NCHS, 1992. These 1989 data for national rates of entry into care are the most recent available. The average of 62.2 percent for minority women was calculated from rates for Mexican American, Puerto Rican, Cuban, Central and South American, other Hispanic, Chinese, Japanese, Filipino, Hawaiian, other Asian, American Indian/Alaskan Native, and Black women.

The BPHC provided the rate for women in federally designated Healthy Start project areas. The BPHC calculated this rate from information reported by the 15 projects for a time period between 1984 and 1989. The project areas are: Aberdeen, South Dakota (rates are for the Northern Plains Native American populations in North Dakota, South Dakota, and Nebraska); Baltimore, Maryland; Birmingham, Alabama; Boston, Massachusetts; Chicago, Illinois; Cleveland, Ohio; Detroit, Michigan; Lake County, Indiana; New Orleans, Louisiana; New York, New York; Oakland, California; the Pee Dee region, South Carolina; Philadelphia, Pennsylvania; Pittsburgh, Pennsylvania; and Washington, D.C.

29. NCHS, *Monthly Vital Statistics Report*, *1991,* p. 43. These 1989 data are the most recent available.

30. American College of Obstetricians and Gynecologists (ACOG), *Standards for Obstetric-Gynecological Services,* Washington, D. C., 7th cd., 1989, p. 16.

The PHS has required that “all centers, regardless of size, must assure that the services that they deliver conform to the *Standards for Obstetric-Gynecologic*

Services" ("Perinatal Care: How to Establish Perinatal Semites in Community Health Centers," PHS, 1985 p. 96).

A 1989 PHS report, *Caring for Our Future: The Content of Prenatal Care,* suggested slightly different guidelines. This report recommends that healthy women receive a minimum of nine prenatal visits during a first pregnancy and seven prenatal visits during subsequent pregnancies (p. 50). The report suggests that women at risk, because of either psychosocial or physical factors, might require more prenatal visits (p. 71). Psychosocial and physical risk factors include: inadequate personal support systems, single marital status, adolescence, advanced age, high stress and anxiety, less than high school education, low income, inadequate housing, inadequate nutritional resources, communication barriers, smoking, alcohol abuse, and illicit drug use (p. 79).

31. Nonresponses may have resulted in an underestimate of the percentage of centers with such vacancies.

32. U.S. General Accounting Office, *Medical Malpractice: Data on Claims Needed to Evaluate Health Centers' Insurance Alternatives (HRD-91 -98),* Washington, D. C., May 1991, p. 1. These data are for all Section-330 grant recipients.

33. P.L. 102-501. Under the FTCA, center providers will be defended by the Justice Department in any medical malpractice litigation, and judgments will be paid out of a Justice Department fund, into which the centers will pay annual contributions. This liability protection will be provided for three years, after which time the financial benefits of the arrangement will be assessed.

34. On average, 13 percent of each center's perinatal clients were privately insured and 2 percent were covered by other mechanisms in 1990.

35. OIG, *Medicaid Expansions for Prenatal Care: State and Local Implementation* (OEI-06-90-00160), January 1992, appendix E.

36. Bonnie Lefkowitz, BPHC, PHS, written communication to OIG, December 24, 1991.

37. One center reported waits of more than 12 months for Medicaid reimbursement.

38. P.L. 95-210. *The Rural Health Clinic Services Act.*

The Rural Health Clinic Services Act was amended in the Omnibus budget Reconciliation Act of 1989 to include certified nurse midwives as eligible program participants, and to provide reimbursement for clinical social work services.

39. OIG, *Medicaid Expansions for Prenatal Care: An Update (OEI-06-90-O0161),* May 1992.

40. P. E., pp. 4-5.

41. Centers report a range of coalition activities, including: high-risk referrals and consultations, coverage for delivery, case management and support services, integration of WIC services, support for breast-feeding women, services to migrant populations, and outreach.

42. P. E., p. 18.

43. Our survey addressed only admitting privileges. During interviews, center staff reported hospital restrictions on the delivery privileges of certified nurse midwives and family physicians.

44. P. E., p. *19.*

45. HRSA, FY 1993 Justification of Appropriations, vol. 1, p. 61.

46. BPHC and ASMB data.