

Differences in the Obstetric Practices of Obstetricians and Family Physicians in Washington State

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In response to the obstetric malpractice crisis, both obstetrician-gynecologists and family physicians have raised their fees and preferentially selected lower risk patients. In addition, large numbers of general and family physicians have left obstetric practice altogether. The impact of these responses was explored by examining the differences in the demographic and clinical profile of patients served by these two disciplines in the State of Washington.

Eighty-five percent (45,540) of all complete records from 1983 births attended by physicians in the State of Washington were matched to physician specialty information. These births represent 67% of the total deliveries in Washington State in 1983. Although twice as many general and family physicians as obstetricians were practicing obstetrics, obstetricians delivered

2.5 times as many infants as did general and family physicians. Obstetricians served an older patient population with more low-birthweight infants, multiple births, and complications of pregnancy than family physicians. General and family physicians were more likely to care for minorities, teenagers, and unmarried and rural mothers.

Obstetricians cared for patients with higher medical risks, whereas general and family physicians provided care to more socially vulnerable and geographically isolated populations. To the extent that general and family physicians are differentially abandoning obstetric practice because of the current malpractice crisis, access to care for rural and socially vulnerable groups may deteriorate rapidly. *J Fam Pract* 1991; 32:00-00.

The provision of obstetric care in the United States is dependent primarily on the voluntary participation of physicians in private practice. The majority of deliveries in this country are attended by obstetrician-gynecologists, with a substantial minority attended by general and family physicians. There has been a striking exodus of physicians from obstetric practice in the past several years, precipitated by the growing incidence of obstetric malpractice claims and a dramatic rise in liability insurance premiums.¹ A consequence of this exodus has been diminished access to obstetric care in many parts of the country, particularly for poor and rural women.

The disciplines of obstetrics and family practice have responded differently to the obstetric malpractice crisis. While a small but significant number of obstetricians have given up obstetrics, a larger number have responded by raising fees and modifying their patient selection procedures.^{2,3} Family physicians, on the other hand, have

been more likely to give up the obstetric portion of their practice altogether.^{1,4} The impact of these responses depends largely on the extent to which family physicians serve a patient population not routinely reached by obstetricians. This paper explores the impact of these changes by describing the demographic and clinical differences in the practices of obstetricians and general and family physicians in Washington State.

Methods

This descriptive study used two sources of data: (1) the 1983 Washington State birth records, and (2) the 1983 American Medical Association (AMA) Masterfile database. The birth records contain information recorded on the birth certificates, including maternal and paternal demographic characteristics, maternal prenatal risk factors, intrapartum and neonatal complications, and outcome measures such as 1- and 5-minute Apgar scores and birthweight. County of birth and attendant name and classification (medical doctor, doctor of osteopathy, midwife, etc) are also located on each birth record. The AMA

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Table 1. Geographic Distribution of Matched Obstetric Providers, Washington State, 1983

Location	General and Family Physicians		Obstetricians	
	No.	(%)	No.	(%)
Urban	375	(50.7)	253	(71.7)
Semiurban	236	(31.9)	83	(23.5)
Semirural	84	(11.4)	17	(4.8)
Rural	45	(6.0)	0	(0.0)
Total	740	(100.0)	353	(100.0)

Overall chi-square is significant ($P < .001$, $\chi^2 = 56.6$, $df = 3$).

data include the names, county of practice, and self-designated primary, secondary, and tertiary specialty of Washington State member and nonmember physicians in 1983. Primary physician specialty from the AMA data was linked to the Washington State birth records through the physician name and county code variables that are located on both data sources.

A geographic location variable was created and linked to each record. This variable designates each county as urban, semiurban, semirural, or rural, based on the percentage of persons in the county living in an urban area as defined by the Bureau of the Census.⁵ Urban counties are those with 76% to 100% of the population living in urban areas, semiurban 51% to 75%, semirural 26% to 50%, and rural 0% to 25%. Using this classification, 4 of Washington's counties are urban, 15 are semiurban, 8 are semirural, and 2 are rural.

Two groups of births were identified: those attended by physicians whose primary specialty is (1) family practice or general practice, or (2) obstetrics and gynecology. The maternal demographics, risk status characteristics, and geographic location of deliveries were then compared between general and family physicians and obstetrician-gynecologists.

Births excluded from the analysis include those that (1) occurred out of state, (2) were attributed to a non-physician attendant, (3) had no attendant name on the birth record, and (4) were attributed to physicians who shared name and county of practice with another physician.

Standard chi-square tests were used to test for significant differences between the two specialty groups. In the case of 2×2 tables, the continuity corrected formula was used.

Results

There were 69,866 births recorded on birth certificates in Washington State in 1983. Those infants delivered outside the state (1535) or by a nonphysician attendant

Table 2. Geographic Distribution of Obstetric Patients of Matched General and Family Physicians and Obstetricians, Washington State, 1983

Location	General and Family Physicians		Obstetricians		Total
	No.	(%)	No.	(%)	No. (%)
Urban	5,257	(18.7)	22,904	(81.3)	28,161 (100)
Semiurban	4,952	(36.3)	8,693	(63.7)	13,645 (100)
Semirural	1,891	(67.7)	902	(32.3)	2,793 (100)
Rural	941	(100.0)	0	(0.0)	941 (100)
Total	13,041		32,499		45,540

Overall chi-square is significant ($P < .001$, $\chi^2 = 6$, $df = 3$).

(4824) were excluded. Also excluded were 9756 birth certificates that did not record a physician name. A match was attempted between the remaining 53,751 births with those physicians in the AMA data file who listed obstetrics-gynecology, family practice, or general practice as their primary medical specialty. Forty-five thousand five hundred forty, or 85% of those remaining births, were matched by the name and county code to 1093 family physicians, general practitioners, and obstetrician-gynecologists. These 45,540 matched births represented 67% of the total deliveries in Washington State in 1983.

Geographic Distribution of Physicians and Births

Table 1 reports the total numbers of general and family physicians and obstetrician-gynecologists in the study, and their distribution in urban, semiurban, semirural, and rural counties. The majority of matched obstetricians were practicing in urban counties, with only 4.8% practicing in semirural counties, and none in rural counties. Nearly 50% of matched general and family physicians practiced obstetrics outside urban counties, with 16.4% practicing in semirural and rural counties.

Although there are twice as many general and family physicians as obstetricians providing obstetric care in the study, obstetricians attend 2.5 times the number of deliveries as general and family physicians overall (Table 2). Even though obstetricians attend a majority of the births in Washington State, all of the births in rural counties and over two thirds of the births in semirural counties were attended by general and family physicians. Less than 3% of all births attended by obstetricians were in semirural or rural counties.

Patient Demographic and Risk Status Differences

It was hypothesized that obstetricians would care for an unequivocally higher risk group of obstetric patients. Indeed, obstetricians attended a significantly greater proportion of multiple births, births of infants less than

Table 3. Percentage of Obstetric Patients with the Following Risk Characteristics, Washington State, 1983

Risk Characteristics	General and Family Physicians	Obstetricians	P
One or more pre-pregnancy complications	2.5	2.6	.95
Complications related to pregnancy	7.4	9.2	<.001
Multiple births	1.1	2.6	<.001
Infants < 2500 g	3.6	6.0	<.001
Number of births*	13,041	32,490	

*Number of births varies according to missing data.

2500 g, and births with complications related to pregnancy, such as preeclampsia, Rh sensitization, syphilis, herpes, rubella, and anemia (Table 3). The percentage of prepregnancy complications, such as chronic renal failure, urinary tract infection, tumor, epilepsy, chronic hypertension, and symptomatic heart disease, was the same in the family and general practice and obstetrician patient groups.

Although obstetricians cared for a greater proportion of medically high-risk pregnancies, general and family physicians attended a significantly greater percentage of births to socially high-risk women: nonwhite, unmarried mothers less than 18 years old who began their prenatal care after the first trimester (Table 4).

Differences in the demographic and risk characteristics of all obstetric patients will be dominated by those found in urban counties, where the majority of births take place. Tables 5 and 6 stratify these practice characteristics into the four geographic areas. For the most part, the finding that family physicians and general practitioners care for a medically lower risk and socially higher risk group of women is consistent in all geographic regions. In semirural counties, however, there are less striking differences in the proportion of young, unmarried mothers between obstetrician and general and family physician practices. In addition, urban general and

Table 4. Percentage of Obstetric Patients with the Following Demographic Characteristics, Washington State, 1983

Demographics	General and Family Physicians	Obstetricians	P
Age			
<18 years	4.8	2.7	<.001
18-34 years	90.8	90.4	<.001
>35 years	4.5	6.9	<.001
Not married	19.8	14.2	<.001
Nonwhite	14.2	11.7	<.001
Beginning prenatal care in 2nd or 3rd trimester	26.1	19.1	<.001
Number of births*	13,039	32,493	

*Number of births varies according to missing data.

family physicians and obstetricians care for a similar percentage of women with complications related to pregnancy. In more rural counties, obstetricians care for a higher percentage of these women than family physicians.

Discussion

Although the number of obstetricians and family physicians and general practitioners in Washington State has increased, their geographic distribution has remained relatively constant.⁶ The majority of both provider groups practice in urban and semiurban counties, but family physicians and general practitioners continue to provide the majority of obstetric care in rural and semi-rural areas. These findings, coupled with Rosenblatt and Detering's work¹ showing large numbers of family physicians terminating the obstetric component of their practices, raise important concerns about access to care for pregnant women in rural areas.

Although the exodus of general and family physicians from obstetric practice initially appeared to be a phenomenon of urban areas, recent work by Nesbitt⁷ indicates that physicians are leaving obstetric practice in rural areas as well. Nesbitt found a 16% decline in physicians providing obstetric services from 1985 to 1988 in the 33 communities with small rural hospitals in Washington State. Other states suffer from similar losses of obstetric providers. A 1987 survey by the Montana Academy of Family Physicians found that 32% of Montana's largely rural counties had no obstetric services, and an additional 34% would be without services in 1988.⁸

Despite the relative paucity of obstetricians in rural and semirural counties, family physicians and general practitioners in these areas maintain low-risk obstetric practices. Few of their patients have multiple births or complications during pregnancy. Urban general and family physicians and obstetricians, on the other hand, provide care to women with a similar percentage of complications during pregnancy. Family physicians and general practitioners in urban areas may feel more comfortable managing these higher risk patients knowing that specialist backup is readily available, while those in nonurban areas select lower risk women because of their relative medical isolation. This distribution of high-risk patients supports the notion that obstetric care in Washington State is well regionalized and that family physicians and general practitioners in nonurban areas provide obstetric care to a selected patient population.

Although general and family physicians care for women with lower medical risk, their patients' social risks are higher. General and family physicians care for a

Table 5. Percentage of Obstetric Patients in Urban and Rural Counties with the Following Demographic Characteristics, Washington State, 1983

	Urban		Semiurban		Semirural		Rural	
	FP-GP	OB	FP-GP	OB	FP-GP	OB	FP-GP	OB
Age								
<18 years	5.0	2.5*	4.7	3.2*	4.4	4.8	4.5	—
18–34 years	90.3	89.9	91.4	91.6	90.6	89.5	90.2	—
>35 years	4.7	7.6	3.9	5.1	5.0	5.8	5.3	—
Not married	22.4	13.3*	19.1	16.4*	15.3	14.1	18.1	—
Nonwhite	17.8	12.6*	13.6	9.9*	5.8	4.3	13.9	—
Beginning prenatal care in 2nd or 3rd trimester	26.1	17.8*	24.0	20.3†	28.3	22.2*	25.3	—
Number of births‡	5,256	22,898	4,951	8,693	1,891	902	941	—

*P <= .001.

†P <= .05.

‡Number of births varies according to missing data.

FP-GP—Family physicians-general practitioners; OB—Obstetricians.

greater proportion of young, nonwhite, unmarried mothers who receive prenatal care later in their pregnancies. These findings match those of Rosenblatt and Detering, which showed a greater percentage, 41%, of family physicians and general practitioners who accepted unlimited numbers of Medicaid patients compared with obstetricians, 26%.¹ Large proportions of both specialties—50% of general and family physicians and 62% of obstetricians—limited the care they provided to Medicaid patients, making these socially underserved women most vulnerable to inadequate access to obstetric care.

This study has several limitations that must be noted. First, physician specialty is self-designated on the AMA Masterfile, undoubtedly resulting in some inaccuracies in specialty classification. Second, the large number of attendant names missing on the birth certificates is of concern. If there was bias in the physician specialty, geographic location, or risk characteristics of these births, it could affect the results. Third, these data are now 7 years old. Although there are no data to suggest the findings of this study have dramatically changed, additional research to follow trends in the practice patterns of

general and family physicians and obstetricians would be useful.

Access to obstetric care was the most important health care issue addressed in the Washington State 1989 legislative session. Eleven rural counties in Washington State had no obstetric providers in 1989. The Department of Social and Health Services reports that during the past 3 years there has been a loss of 107 physicians willing to provide obstetric care to women insured by Medicaid. Simultaneous with this decrease in providers has been an 18% increase in the number of Medicaid-funded births, from 13,816 to 16,900.*

Although women who are geographically isolated or socially and financially vulnerable would be most directly affected by obstetric access problems, differences in the clinical practices of obstetricians and general and family physicians and their responses to the malpractice crisis have accentuated these effects in Washington State. Because general and family physicians, many of whom are

* Personal communication, Jeanne Ward, November 9, 1988, Department of Social and Health Services, Washington State.

Table 6. Percentage of Obstetric Patients in Urban and Rural Counties with the Following Risk Characteristics, Washington State, 1983

	Urban		Semiurban		Semirural		Rural	
	FP-GP	OB	FP-GP	OB	FP-GP	OB	FP-GP	OB
One or more pre-pregnancy complications	3.0	2.6	2.2	2.4	2.0	2.6	3.3	—
Complications related to pregnancy	9.0	9.1	5.9	9.1‡	7.8	10.5*	5.8	—
% Multiple births	0.9	2.5‡	1.2	2.7‡	1.4	2.4	0.6	—
% Infants <2500 g	4.3	6.5‡	3.0	4.6‡	3.4	6.0†	2.6	—
Number of births§	5,257	22,904	4,952	8,693	1,891	902	941	—

*P <= .05.

†P <= .01.

‡P <= .001.

§Number of births varies according to missing data.

FP-GP—Family physicians-general practitioners; OB—Obstetricians.

dropping obstetrics altogether, provide all the obstetric care to women giving birth in rural areas and a proportionately greater amount of care to socially vulnerable women, access to obstetric care is severely threatened for these patient groups.

Working to maintain obstetrics as an active component of obstetricians' and general and family physicians' practices should be of paramount concern to medical educators, health manpower policy makers, and legislators. A multifaceted approach must be taken and should include malpractice reform, incentives to care for women with higher social risk factors, and the assurance of an adequate supply of family physicians well trained in obstetrics and committed to rural practice. Without immediate attention to these strategies, access to obstetric care for geographically and socially vulnerable women in Washington State will continue to deteriorate at a rapid pace.

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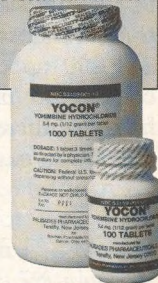
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