

The Problem of Teenage Pregnancy

Martha Cole McGrew, MD, and William B. Shore, MD

Albuquerque, New Mexico, and San Francisco, California

DR MARTHA MCGREW (*Family Practice Faculty Development Fellow, University of California, San Francisco*): Adolescent pregnancy continues to be one of the most difficult issues that teenagers, their families, and communities face today. It affects us all in some way. The teenage mothers or fathers are often unprepared for parenthood and drop out of school, taking low-paying jobs and never completing their education. The teenagers' parents are often thrust into the role of raising two children—the teenager and his or her child. Further, they find themselves stressed emotionally and economically at a time when they were looking forward to their children becoming self-sufficient. Our medical system is also challenged by adolescent pregnancy, which is by definition high risk. Often there is inadequate prenatal care and less than optimal nutrition. Children of teenage parents typically have more illnesses in the first year of life.^{1,2}

Social and educational institutions share in a large portion of the problems of adolescent childbearing. Children of teenage parents frequently live in homes that are near or below poverty level. They often require public assistance for the basics of life: food, clothing, and shelter. There is an increased incidence of school failure and dropout in teenage parents and subsequently in their children.³

We would like to begin this Grand Rounds by presenting some statistics on adolescent childbearing.

DR WILLIAM SHORE (*Associate Clinical Professor-Department of Family and Community Medicine, UCSF*): Statistics from 1980 (those from 1990 are not yet available) indicate that there are approximately 10 million girls in the United States. Approximately 1 out of every 10 girls aged 15 to 19 years becomes pregnant each year. This number has changed little over the past 15 years.

Submitted, revised, October 9, 1990.

From the Department of Family, Community, and Emergency Medicine, University of New Mexico, Albuquerque, and The Department of Family and Community Medicine, University of California, San Francisco. Requests for reprints should be addressed to Martha Cole McGrew, MD, University of New Mexico School of Medicine, Department of Family, Community, and Emergency Medicine, 2400 Tucker NE, Albuquerque, NM 87131.

Using trends from the previous 10 years, it was estimated that among women aged 15 to 19 years, there were 837,000 pregnancies in 1988; among those teenagers 14 years old or younger, there were 23,000 pregnancies. Of these teenage pregnancies, 75% of those in 15 to 19-year-olds were resolved outside of marriage, and nearly all of those in younger teenagers were resolved outside of marriage. Only 16% of pregnancies to teenagers were intended. Thirty-two percent of unintended pregnancies to all women occur in adolescents. Fifty-five percent (463,000) of the pregnancies in teenagers will result in birth, 9000 of these births to girls under the age of 15 years. The remainder of pregnancies are terminated in abortion. One fifth of all US births are to teenagers and one fourth of all abortions in the United States are obtained by teenagers.⁴⁻⁶ In one study, 20% of all premarital pregnancies among teenagers occurred within 1 month of initiating sexual intercourse. Fifty percent of first teenage pregnancies occurred within 6 months of first intercourse.⁷

Adolescent childbearing cost the nation \$16.6 billion in 1985.⁸ Although adolescent fertility rates are decreasing slightly in the United States, they are still higher in the United States than in most other developed countries. Several studies of childbearing in industrialized countries, published by the Alan Guttmacher Institute in New York,^{4,6} compare the United States with Canada, France, the Netherlands, Great Britain, and Sweden. These countries were chosen because of their similarities to the United States in culture, stages of economic and industrial development, and levels of adolescent sexual activity. In addition, these countries had data available on adolescent sexual activity. Not only were the US pregnancy rates higher, but the US birth and abortion rates were higher than the rates of the other countries. The increases in the US abortion rate among teenagers has had little effect on birth rate.⁹⁻¹¹ For the remainder of this discussion, a "sexually active" teenager is defined as one who has experienced intercourse.

DR MCGREW: We would like to present one of our own case histories of adolescent pregnancy.

Case Presentation

H.S. was a 15-year-old girl who came to the Family Practice Center with her mother. H.S.'s chief complaint was of morning nausea and vomiting, fatigue, and weight gain. Mother and daughter were both certain that H.S. was pregnant. In fact, good dating and uterine size confirmed that H.S. was at 13 weeks' estimated gestational age.

H.S. had turned 15 years old 4 months earlier and had been sexually active for 6 to 9 months. Her mother knew she was sexually active and had suggested oral contraceptives, which H.S. had been taking. She denied having missed any birth control pills. On the first prenatal visit, her mother brought up the possibility of abortion as an option. H.S. was totally opposed, and her mother supported her in her decision.

H.S.'s past medical history was essentially unremarkable. She denied any previous sexually transmitted diseases and substance abuse. She was currently in the 10th grade at a highly regarded public school and had a B average. H.S. was active in her church and in school. She lived with her mother and an older brother and was close to both. H.S.'s mother had given birth to her first child at 16 years of age. She had remained a single, working parent. H.S.'s former boyfriend (the baby's father) was 18 years old and out of school at the time of conception. H.S. and the baby's father "broke up" 2 months prior to her first prenatal visit. Nevertheless, he continued to be involved and supportive of H.S. He visited her quite often, and with his parents' help, was able to offer a small amount of financial support.

The pregnancy itself was uneventful medically. H.S. required extra time per visit for questions, concerns, and education. At that time there were very few supplemental support agencies available in that community. H.S. did attend a special high school for pregnant teenagers; the goal of the high school was to keep the girls in school before and after the birth and to teach parenting skills.

H.S. gave birth to a full-term 6-lb 5-oz son by normal spontaneous vaginal delivery. She went back to her regular high school and did well initially. Her son, D., was in daycare. D.'s father remained involved in his care both economically and emotionally.

The stresses of parenting and school soon became overwhelming. H.S.'s grades dropped, and she found herself missing more and more school. Seven months after D. was born, H.S. was pregnant again. During this pregnancy, she dropped out of school and obtained her graduate equivalency degree. Her second baby (born when H.S. was 17 years of age), a girl, was delivered by cesarean section.

H.S. has delayed her plans for college—although she

still intends to go. She plans to begin job hunting when her daughter is several months older. H.S. and her two children continue to live with her mother. She feels very discouraged.

Issues of Teenage Pregnancy

Before we move on to some of the larger psychosocial issues around teenage pregnancy, I would like to briefly discuss some of the medical issues. Many of the medical problems of teenage pregnancy are directly or indirectly related to psychosocial factors.

Most of the medical risk associated with adolescent pregnancy is related to late or nonexistent prenatal care. Some of the reasons teenagers do not seek prenatal care are denial of pregnancy, ignorance of the need for prenatal care, a perceived or real nonavailability of services, a casual attitude toward the need for prenatal care, and inappropriate methods of a prenatal service delivery.¹¹ Over 50% of women aged under 18 years do not receive prenatal care until the second trimester. Another 10% do not begin care until the third trimester, and over 2% have no prenatal care at all. There are more complications of pregnancy in women who do not receive prenatal care or who do not receive it until the third trimester.^{12,13}

Poor nutrition is often a problem. The causes of an inadequate diet may be multiple. With late prenatal care, the mother often misses the early nutritional education and may not receive supplemental prenatal vitamins or the opportunity to participate in such nutritional programs as WIC (Women, Infants, and Children). Lower socioeconomic status makes purchase of nutritional foods more difficult; and often teenagers consume too few calories or too few nutritious calories. Pregnant teenagers are nearly twice as likely to have anemia than pregnant women aged over 20 years.¹⁴ H.S. had a mild anemia during her pregnancy and was treated with supplemental iron and nutritional counseling.

Pregnant adolescents are more likely to have toxemia of pregnancy with higher rates of subsequent abruption, especially those in their early teens.^{12,14,15} They give birth to a higher percentage of premature and lower birthweight infants—again, likely related to inadequate prenatal care.^{14,15} In girls younger than 15 years of age, there is an increased risk of cephalopelvic disproportion.¹²

The initial medical risks to the newborn are the increased rates of prematurity and low birthweight. These problems often predict poor health and development.¹³

The risk of an infant dying within the first year of life increases as the age of the mother decreases below 20

years of age; 6% of infants born to mothers younger than 15 years of age die within the first year of life.¹⁴

The psychosocial issues of adolescent pregnancy and childbearing are even more overwhelming than the medical issues. One author writes of adolescent childbearing as "initiating a syndrome of failure": failure in achieving the developmental tasks of adolescence, failure to complete one's education, failure in limiting family size, and failure to establish a vocation and become independent.¹⁶ H.S. interrupted her education and will find separation from her family a difficult issue because of her financial dependence. There are, of course, adolescents who desire pregnancy, who are married, and who complete their education and become self-sufficient. They, however, are in the minority.

Two other factors affecting teenage pregnancy merit discussion. The first is low self-esteem and expectations among some socially and economically disadvantaged youths. Without the possibility of a bright future, it seems difficult for teenagers to develop the skills necessary to prevent early childbearing. In fact, a baby may be seen as one of the only attainable "accomplishments." Another factor contributing to continued childbearing is the lack of resources available to adolescent mothers after giving birth to the first child.³ Teenagers find it hard to manage schoolwork, childcare, and peer activities without affordable, accessible daycare, social work services, and counseling or support groups.³ Juggling responsibilities becomes too difficult, and a sense of helplessness ensues. H.S. had exactly this experience.

Let us now focus, in turn, on the adolescent mother, adolescent father, and the child.

DR SHORE: Initial childbearing during adolescence is associated with an increased rate of childbearing and eventually more total births. This finding is true across racial, religious, and educational subgroups. Sixty percent of teenagers who give birth before the age of 17 years will have a repeat pregnancy before they are 19 years old.^{17,18} For H.S. it was 7 months between the birth of her first child and the beginning of her second pregnancy. Women who bear only one child during adolescence seem to have the best chance of educational and economic achievement—if they receive adequate support after the birth of their first child. The birth of a second child during adolescence predicts a negative outcome. These women are less able to achieve an education, independence, and financial security.^{3,19}

DR NUBIA MEDINA (*Second-year Family Practice Resident, University of California, San Francisco*): Dr Shore, I have two questions. First, what type of support do teenage mothers need? Second, what about teenagers who are married at the time of birth? Is their outlook as grim?

DR SHORE: To answer your first question, there are a variety of services and supports that are helpful. An emotionally supportive family, including the father of the child, is a good first step. Financial support must be available for the teenage mother and her baby, either from relatives or from some form of public assistance. Too often, a teenager finds the red tape of public assistance difficult to manage; she either is unable to fill out forms or must miss school to register for assistance. Teenagers need encouragement to stay in school, and that means low-cost, accessible daycare in or near their schools and easily available medical care, including help in choosing effective birth control. Finally, support groups for teenage parents can be helpful in minimizing feelings of loneliness and helplessness.

To answer your second question: Women who first bear a child in adolescence have more children regardless of marital status at first birth.¹⁷ Also, the younger the adolescent at first birth, the more likely it will be that a first marriage will dissolve regardless of the marital status at first birth.^{20,21}

A 1987 study of adolescent mothers and their children revealed some interesting findings. This study primarily examined black mothers in an urban area with follow-up interviews up to 15 years later. At the 15-year follow-up, 80% of the original sample of teenage mothers was interviewed.³

At the 5-year follow-up, many of the adolescent mothers were struggling to gain an education and to use contraceptives reliably, and approximately one third of these women were receiving public assistance. At the 15-year follow-up the situation was not so bleak as might have been expected at the 5-year follow-up. Those who fared better had remained in school, received family planning and financial assistance, and avoided another birth in their teenage years. The majority had received their high school diplomas, nearly one third had taken at least some post-secondary-school courses, and 5% had graduated from college. Many teenage mothers were able to return to school only after their youngest child entered school. Many of these women had limited their fertility. Forty-three percent had fewer children than they had said they wanted 10 years earlier. Because these women had used birth control unreliably, the ways in which women limited their fertility was examined. Shortly after the 5-year interviews, abortion was legalized. Through self-reported data, it was found that these women were twice as likely to have had an abortion after 1972 as before. There was also a high incidence of voluntary sterilization: 57% of the total.³

In this study population, most of the mothers did not become chronic recipients of public assistance and many found steady employment. Seventy percent had

received public assistance at some point; however, at the final follow-up in 1984, approximately two thirds were not receiving public assistance. Only 12% of those who were on welfare during the first 5 years of the study were still receiving public assistance in 1984. More long-term follow-up studies of adolescent childbearing within various populations are needed.

Teenage Fathers

Of the many programs developed over the past decade to meet the needs of teenage parents, most have focused on prenatal work with adolescent mothers and postpartum services for their babies. Historically, relatively few have worked to define or to address the needs of the teenage father. As of 1976, only one third of teenage parent programs offered any services to teenage fathers.²⁰ Early programs often made only passing, stereotypical references to young fathers: "the illegitimate father," "putative father," "teen fathers are . . . self-centered, irresponsible . . . take advantage of young women without thinking of consequences. . . ."^{22,23}

Several reports have described the needs of the young fathers. Hendricks²⁴ reported that they needed information on parenting skills, sexuality, contraception, and job placement and training. Elster and Panzarine²⁵ have shown that fewer than 50% of teenage fathers could correctly answer questions about female reproductive physiology, yet all the fathers expressed great interest in learning about childbirth and child care. Social service agencies need to provide psychosocial counseling, vocational guidance, and parenting education to teenage fathers.^{26,27} Programs need to reach out assertively to unmarried adolescent fathers to serve them effectively.²⁸

The TAPP (Teenage Pregnancy and Parenting) program in San Francisco developed an outreach program to work with the teenage fathers (or men who had impregnated teenage women). When the young women enrolled in the program, their partners were also assigned a case manager. A majority of the teenage fathers registered in the TAPP program were single (94%) and unemployed (65%). Most of the active clients were between 16 and 19 years of age (though the range was 14 to 31 years) and predominantly African-American (32%) or Latino (35%). The services provided included a weekly support group, individual counseling and support as needed, outreach services, job training, and efforts to keep the young men in school and to keep them involved with their babies. Although there are few studies associated with the program, one TAPP study indicated the birthweights were higher in babies born to teenage

mothers when the fathers were involved compared with those in which fathers were not involved.²⁹

In another study in which prenatal education programs included teenage fathers, the findings suggested significant gains in knowledge compared with that of an experimental control group. It was further suggested that fathers who were more informed tended to report more supportive behaviors toward the mother and the infant.³⁰

Even though teenage mothers often break up with the father of the baby, as with H.S., it is important to keep the fathers involved with the child. The fathers should be invited to participate in prenatal visits and to act as coaches in labor and delivery. It is hoped that this activity will lead them to become involved in their child's life.

Children of Adolescent Parents

Over half of children born to adolescent mothers never live with their biological fathers. Those who are in a household with a biological or surrogate father generally fare better economically.² There is a higher incidence of school failure in children of adolescent parents. Studies indicate that approximately 40% to 50% of these children repeat at least one grade. Female children (of adolescent mothers) who repeat a grade are two times as likely to become pregnant, thus perpetuating the cycle of teenage pregnancy. Incidences of substance abuse, increased fighting, increased numbers of runaways, and problems with the law are also higher among children and adolescent offspring of parents who bore children in adolescence. In addition, there is an overall lower age of first intercourse and an increased rate of teenage pregnancy and fatherhood among these offspring.²

Most adolescent mothers do not neglect their children and take pride in their children's accomplishments after having raised them in less than ideal circumstances.³ These mothers also acknowledge that avoiding repeated pregnancies, completing school, and postponing marriage are likely to ensure more success for their children.²

DR CLINT POTTER (*First-year Family Practice Resident, University, California, San Francisco*): So what can we as individual providers and as community members do to make a change? It seems impossible!

Approaches to the Problem

DR MCGREW: It does seem overwhelming at times, and there is no easy solution. It seems as though there are many projects and programs out there with teenage pregnancy as a focus. Nevertheless, there are relatively

few reports of significant outcomes in the reduction of unintended pregnancy in unmarried adolescents, as evidenced by the lack of significant change in pregnancy statistics in adolescents.³¹ Because of the size and the diversity of our cities, states, and country, it becomes difficult to agree on a plan of action for reducing adolescent pregnancy. Other countries that have been successful in lowering the teenage pregnancy rate have often had a unified, nationwide focus.¹⁰

So what are some specific suggestions for reducing teenage pregnancy?

First is education: in homes, churches, schools, community centers, and the responsible media. Knowledge is a tool. Education should include information about values, sexual behavior, responsibility, the right to say no, and contraception for those adolescents who choose to be sexually active. Those who become pregnant must be supported in their efforts to remain in school.

Formal sex education in schools seems to have had little effect on the decision to initiate intercourse; there has been no decrease or increase in initial sexual activity.³² Adolescents who have had formal sex education, however, are more likely to have discussed sex with their parents, to have ever used birth control, and to have used birth control at their first intercourse.³³ Formal sex education seems to work best when linked to individual sexual and birth control counseling and referral to family planning clinics.³⁴ Sex education has been difficult to evaluate overall; it varies from state to state, county to county, and sometimes even within a school district.

A recent review of the literature to determine what evidence exists to support sex education in the schools identified five studies in which the effect of sex education on sexual behavior, contraception, and pregnancy was evaluated. The authors found little evidence that sex education affected outcomes, either positively or negatively. They suggest that we may be asking our school sex education programs to do too much for a problem that is complex and rooted in our societal values and subcultures.³² A recent report documented a successful community-based program to reduce adolescent pregnancy. This approach involved teenagers, parents, community leaders, ministers, schools, churches, and community groups. School sex education was only one part of this effort. The estimated pregnancy rate declined 35%, compared with the preintervention levels. Comparison communities (no intervention) had 5% to 14% increases in the rate of teenage pregnancy.^{32,35}

Another suggestion is to increase effective contraceptive use. Over the last decade the use of oral contraceptives has decreased while the withdrawal method of contraception has increased.³⁶ Many teenagers have misinformation about the more effective forms of contracep-

tion. In addition, teenagers need more information regarding the use of condoms in preventing the spread of sexually transmitted diseases, including human immunodeficiency virus, as well as for pregnancy prevention.

Third, when teenagers do become pregnant, comprehensive support services must be available: individual counseling combined with coordinated health, educational, psychosocial, and nutritional services. Furthermore, these services must extend to the teenage father. This model has decreased teenage parent school dropouts, diminished repeat births among teenage mothers, and reduced the incidence of low birthweight babies born to teenage parents.³⁷

What can we as individual providers and community members do? We can be advocates of well-planned, community-based programs directed toward reducing adolescent pregnancy and childbearing. We can be aware of the issues of teenage pregnancy in our own communities. We can serve on local committees and task forces focused on adolescents. We can be active in schools, churches, and community organizations.

We must educate our patients, both adolescents and their parents, and remain open to questions from teenagers and parents. It is imperative that we provide a nonjudgmental forum for discussion of sexuality, pregnancy, and birth control. Family physicians and general practitioners were shown in one study to be more likely to refuse to serve minors and less likely to provide contraceptive services without parental consent. Apparently, teenagers fear that their requests will be discussed with parents or that they will be offered unwanted moral advice.³⁸ Above all, we must assure teenagers of their right to confidentiality in discussing these issues.

In closing, there is no wonderful follow-up to share with you about H.S., as is, unfortunately, often the case. Teenage pregnancy is still an epidemic problem in search of a solution. Efforts at reducing teenage pregnancy seem to work best when the focus is unified, multidisciplinary, and community oriented.

References

1. Makinson C. The health consequences of teenage fertility. *Fam Plann Perspect* 1985; 17:132-9.
2. Furstenberg FF. The social consequences of teenage parenthood. *Fam Plann Perspect* 1976; 8:148-64.
3. Furstenberg F, Brooks-Gunn J, Morgan S. Adolescent mothers and their children in later life. *Fam Plann Perspect* 1987; 19:142-51.
4. Teenage pregnancy. The problem that hasn't gone away. New York: Alan Guttmacher Institute, 1981.
5. Trussell J. Teenage pregnancy in the United States. *Fam Plann Perspect* 1988; 20:262-72.
6. United States and cross national trends in teenage sexual and fertility behavior. New York: Alan Guttmacher Institute, 1985.

continued on page 25

continued from page 21

7. Zabin LS, Kantner JF, Zelnick M. The risk of adolescent pregnancy in the first months of intercourse. *Fam Plann Perspect* 1979; 11:215-22.
8. Burt M, Hoffner, D. Teenage childbearing: how much does it cost? A guide to determining the local costs of teenage childbearing. Washington, DC: Center for Population Options, 1986.
9. Westiff CF, Calot G, Foster AD. Teenage fertility in developed nations. *Fam Plann Perspect* 1983; 15:105-10.
10. Jones EF, Forrest JD, Goldman N, et al. Teenage pregnancy in developed countries: determinants and policy implications. *Fam Plann Perspect* 1985; 17:53-63.
11. Jones EF, Forrest JD, Henshaw SK, et al. Unintended pregnancy, contraceptive practice, and family planning services in developed countries. *Fam Plann Perspect* 1988; 20:53-67.
12. Dott AB, Fort AT. Medical and social factors affecting early teenage pregnancy. *Am J Obstet Gynecol* 1975; 125:532-5.
13. Singh SA, Torres A, Forrest JD. The need for prenatal care in the United States: evidence from the 1980 national natality survey. *Fam Plann Perspect* 1985; 17:118-34.
14. Neinstein L. Teenage pregnancy in adolescent health care. Baltimore: Urban & Schwarzenberg 1984: 387-97.
15. Hofmann A. Adolescent pregnancy. *Female Patient* 1979 Dec: 44-8.
16. Klein L. Antecedents of teenage pregnancy. *Clin Obstet Gynecol* 1978; 21:1151-9.
17. Trussell J, Menken J. Early childbearing and subsequent fertility. *Fam Plann Perspect* 1978; 10:209-18.
18. Keeve J, Schlesinger ER, Wight BW, Adams R. Fertility experience of juvenile girls in a community-wide ten-year study. *Am J Public Health* 1969; 59:2185-98.
19. Zabin LS, Hirsch MB, Emerson MR. When urban adolescents choose abortion: effects on education, psychological status and subsequent pregnancy. *Fam Plann Perspect* 1989; 21:248-55.
20. McCarthy J, Manken J. Marriage, remarriage, marital disruption and age at first birth. *Fam Plann Perspect* 1979; 11:21-30.
21. Goldstein H, Wallace HM. Services for and needs of pregnant teenagers in large cities of the US, 1976. *Public Health Rep* 1978; 93:46-54.
22. Barret R, Robinson BE. Teenage fathers: neglected too long. *Soc Work* 1984; 27:484-8.
23. Nakashima I, Camp BW. Fathers of infants born to adolescent mothers. A study of paternal characteristics. *Am J Dis Child* 1984; 138:452-4.
24. Hendricks LE. Unwed adolescent fathers: problems they face and their sources of social support. *Adolescence* 1980; 60:861-9.
25. Elster A, Panzarine S. Unwed teenage fathers: emotional and health educational needs. *J Adolesc Health Care* 1980; 182:116-20.
26. Vaz R, Smolen P, Miller C. Adolescent pregnancy: involvement of the male partner. *J Adolesc Health Care* 1983; 4:246-50.
27. Hendricks LE, Howard CA, Caesar PP. Black unwed adolescent fathers: a comparative study of their problems and help-seeking behavior. *J Natl Med Assoc* 1981; 73:863-8.
28. Hendricks LE, Howard CS, Caesar PP. Help-seeking behavior among select population of black unmarried adolescent fathers: implications for human service agencies. *Am J Public Health*. 1981; 71:733-5.
29. Bart RP, Claycomb M, Williams A. Services to adolescent fathers and their relationship to higher infant birthweights: summary report—appendix A. San Francisco: Family Service Agency of San Francisco and San Francisco Unified School District, 1986:2-19.
30. Westney DE, Cole OJ, Munford TL. The effects of prenatal education intervention on unwed prospective adolescent fathers. *J Adolesc Health Care* 1988; 9:214-8.
31. Teenage Pregnancy: 500,000 births a year but few tested programs. Washington, DC: US General Accounting Office, July 1986.
32. Stout J, Rivara F. Schools and sex education: does it work? *Pediatrics* 1989; 83:375-9.
33. Dawson D. The effects of sex education on adolescent behavior. *Fam Plann Perspect* 1984; 18:162-70.
34. Zabin L, Hirsch M, Smith E, et al. Evaluation of a pregnancy prevention program for urban teenagers. *Fam Plann Perspect* 1986; 18:119-26.
35. Vincent M, Clearie A, Schluckter M. Reducing adolescent pregnancy through school and community-based education. *JAMA* 1987; 257:3382-6.
36. Zelnick M, Kantner J. Sexual activity, contraceptive use and pregnancy among metropolitan area teenagers, 1971-1979. *Fam Plann Perspect* 1980; 12:230-57.
37. Korenbrot CC, Showstack J, Loomis A, Brindis C. Birth weight outcomes in a teenage pregnancy case management project. *J Adolesc Health Care* 1989; 10:97-104.
38. Orr, MT, Forrest JD. The availability of reproductive health services from US private physicians. *Fam Plann Perspect* 1985; 17: 63-69.