Fertility Levels Among Jordanian Women Have Fallen Sharply, But Unwanted Childbearing Remains High

Women in Jordan can expect to have 4.4 births during their reproductive years, a decline of three births from the total fertility rate of 7.4 births per woman calculated 20 years ago. The wanted fertility rate, however, is only 2.9 births per woman, and 17% of recent births were unwanted. According to the 1997 Jordan Population and Family Health Survey (JPFHS), all currently married women know of at least one contraceptive method, and 53% currently use one, generally the IUD, the pill or tubal sterilization.[1]

The sample for the 1997 JPFHS included 5,548 ever-married women aged 15–49. The majority of respondents were married at the time of the survey (96%), practiced Islam (97%), lived in urban areas (84%) and had a secondary education (53%).

Marriage

The median age at first marriage among Jordanian women aged 25–49 was 21.5 in 1997. Age at first marriage rose from 18.9 among women with no formal schooling to 24.7 among women with a higher education. Younger women are marrying later than those in older generations: Women aged 25–29 married at a median age of 23.1, compared with 19.4 among 44–49-year-olds.

Overall, 7% of married women in Jordan were in polygynous unions, a proportion that rose from 2% of those aged 15–19 to 9–10% of women aged 40 or older. Women with no education were almost 10 times as likely to be in a polygynous union as were women who had a higher education (19% vs. 2%), and polygyny was nearly twice as common among rural women as among those in urban areas (10% vs. 6%).

Fertility and Fertility Preferences

The total fertility rate (TFR) for Jordan for the three years preceding the survey was 4.4 lifetime births per woman, a level sharply lower than the 1976 TFR of 7.4 births. Women living in rural areas have almost one birth more than those in urban areas (5.0 births vs. 4.2). The TFR varied little by level of education, except between women with a higher education and those with no more than a secondary education (3.7 vs. 4.5–4.6 births).

In 1997, the median age at first birth among women aged 25–49 was 23.2 years. Women aged 25–29 started having children at a considerably later age than those aged 45–49 (24.7 vs. 21.1). Teenage childbearing is rare in Jordan: Only 6% of women aged 15–19 had given birth or were pregnant at the time of the survey.

On average, Jordanian women considered 4.2 children ideal, a number almost identical to the TFR. The ideal number of children varied little by area of residence or level of education.

Twenty percent of births in the five years preceding the survey were reported as mistimed and another 17% were said to be unwanted. The wanted fertility rate—a composite index calculated in the same way as the TFR but excluding births that exceed the number women consider ideal—was 2.9 births per woman. Overall, actual fertility was about 50% higher than wanted fertility, with the greatest differences occurring among rural women and women with little or no education.

Contraceptive Knowledge and Use

Knowledge of at least one contraceptive method is universal in Jordan. In 1997, all currently married women had heard of at least one modern method, and almost all knew of the pill, the IUD and the injectable (92–100%).

Seventy-nine percent of married women had ever practiced contraception, and 53% were using a method at the time of the survey. Some 38% were using a modern method; the IUD, the pill and female sterilization were the most popular methods (used by 23%, 7% and 4% of married women, respectively). Withdrawal, used by 7% of married women, was the most popular traditional method.

Contraceptive prevalence increased with level of education and with urban residence: For example, 39% of women in urban areas and 39% of those with a higher education used a modern method, compared with 31% of women in rural areas and 26% of those without formal schooling. Fewer than 1% of women with no children used a modern method, but the proportion was 36% among women with two children and 48% among those with four or more children.

Most women who used a modern method obtained their contraceptive from a private medical source (72%) such as a family planning clinic (24%), a private doctor (19%) or a private hospital (8%). Those who obtained their method from a public source (28% of married women) were most likely to go to a government maternal health center (11%) or a government hospital or health center (7% each).

Overall, about half (49%) of Jordanian women discontinued their method within the first year of use. This proportion ranged from 82% of women using the diaphragm to 18% of those relying on the IUD. The pill and the condom also had high discontinuation rates (68% each). Women most frequently cited method failure (14%) and side effects (11%) as reasons for discontinuing use.

Among women not practicing contraception at the time of the survey, 48% intended to do so in the next 12 months and 18% intended to do so later, while 28% did not intend to use a method and 6% were unsure about whether and when they might do so. The method most commonly mentioned by women who planned to practice contraception at some time in the future was the IUD (48%), followed by the pill (18%) and withdrawal (6%).

Of those who did not intend to practice contraception, 25% said they wanted more children, 20% reported fecundity problems and 12% cited menopause or hysterectomy; the remainder mentioned a variety of other reasons.

Fifty-five percent of women had been exposed to family planning messages on both the television and the radio, 35% had heard a message on television only and 9% had never heard a message. Virtually all women (96%) found it acceptable to broadcast fam-

ily planning messages on television and radio, with little difference according to area of residence or level of education.

Seventy percent of women had discussed family planning with their husband: Some 26% had done so once or twice, and 44% had talked about family planning more frequently. Ninety-five percent of the women approved of family planning. The great majority (81%) said their spouse also approved of family planning, while 11% reported that their husband did not approve and 3% did not know their husband's attitude.

Maternal and Child Health

Jordan's infant mortality rate has declined from 38.0 deaths before age one per 1,000 live births in the period 10–14 years before the survey to 28.5 deaths per 1,000 in the five years preceding the survey. Over the same period, however, the mortality rate among children aged 1–4 has risen from 4.1 to 5.9 deaths per 1,000.

Socioeconomic factors appear to have an appreciable effect on these indicators. The rates of infant mortality and child mortality are almost 50% higher in rural areas than in urban areas. In addition, the infant mortality rate experienced by women with no schooling is 2.5 times the rate among women with higher education, while the child mortality rate is four times as high.

Sixty-seven percent of children born in the five years preceding the survey were in at least one high-risk category for dying, such as being a first birth or being born less than 24 months after a prior birth. Children in one high-risk category were 33% more likely than those with no risks to die; children in several risk categories were 75% more likely than those without risks to die.

The mothers of 4% of children born in Jordan in the five years preceding the survey received no prenatal care. This proportion was higher among women with no formal schooling (16%) than among those with at least a primary education (2–7%). Women in rural areas were more than twice as likely as those in urban areas to have had no prenatal care (8% vs. 3%).

Ninety-three percent of births in the five years preceding the survey took place at a health facility; the rest occurred in the woman's home. Births to women who were older, had six or more previous births or lived in rural areas were more likely than births to other women to have occurred at home. The majority of births (65%) were attended by a doctor, while 32% were attended by a nurse or trained midwife and the remainder by a traditional birth attendant or relative.

Most infants born in the three years preceding the survey were breastfed (95%), but few were given breastmilk exclusively. At the time of the survey, 15% of infants aged 0–3 months were being breastfed exclusively, a proportion that declined to 3% among infants aged 4–6 months and to 0% at 7–9 months. The median duration for any type of breastfeeding was 11.9 months. Women in rural areas breastfed their infants longer than women in urban areas (13.1 vs. 11.6 months), and women, with no education breastfed longer than those with primary, secondary or higher education (16.7 vs. 11.1–12.5 months).

In 1997, 8% of children younger than five were stunted, 2% severely so. Two percent were wasted (thin for their height), and 5% were underweight for their age. Males were slightly more likely than females to be wasted (8% vs. 7%), while females were more likely to be underweight (6% vs. 5% of males). Children in rural areas were more likely than children in urban areas to be stunted (14% vs. 6%) and underweight (9% vs. 4%). Children born to mothers with no formal education were much more likely than their counterparts to be underweight (13% vs. 4–7%).

AIDS

In 1997, 98% of ever-married women had heard of AIDS. Among them, only 1% believed there is no way to avoid infection with the virus that causes AIDS. The most frequently mentioned strategies were to avoid blood transfusions (44% of women), to have only one sexual partner (31%), to avoid homosexuals (24%) and to avoid injections (22%). While 84% of women knew about condoms, only 2% reported using them. Use of condoms was more common among women in urban areas than in rural areas, and rose with woman's level of education, but never exceeded 4% of women in any one demographic category.—*I. Olenick*

Reference

1. Department of Statistics and Macro International, *Jordan Population and Family Health Survey* 1997, Calverton, MD, USA: Macro International, 1998.

Family Planning Access Increases Contraceptive Practice, Even Among Women Who Do Not Intend to Use a Method

Moroccan women who intend to practice contraception in the future are much more likely to do so if they live in a community where high-quality family planning services are readily available. Moreover, according to a study based on data from women interviewed in both the 1992 Morocco Demographic and Health Survey (MDHS) and the 1995 Morocco Panel Survey, the family planning supply environment also has a strong influence on the likelihood of method adoption among women who have not stated an intention to use a method in the future.[1]

The MDHS included 9,256 women aged 15–49 in 212 sample clusters. Participants were asked about their fertility desires as well as their current use of contraceptives and their intention to use a method in the future. In 1995, in the Morocco Panel Survey, 107 of the DHS sample clusters were revisited, and 3,168 of the original participants were reinterviewed.

Of these women, 770 were excluded from the analysis because they were using contraceptives in 1992, 1,435 because they were unmarried at either interview and 53 because they were not married to the same man at both interviews. The final sample included 910 women.

The DHS Service Availability Module was used to obtain data on community infrastructure and on the supply environment for family planning services from community informants and through visits to facilities located in sample communities.

All 107 sample clusters were within 30 kilometers of at least one facility that offered family planning services (hospitals, public and private clinics, private physicians and pharmacies). The median distance to a provider was seven kilometers in rural areas and less than one kilometer in urban areas. In both urban and rural areas, clusters were most likely to be within 30 kilometers of a pharmacy (100% vs. 72%) or a public clinic (97% vs. 100%). Rural clusters were less likely than urban clusters to be within 30 kilometers of a private doctor (42% vs. 81%), a hospital (25% vs. 80%) or a private clinic (14% vs. 53%), but they were more likely than urban clusters to be served by community-based distribution systems (69% vs. 45%). On average, rural facilities

had fewer contraceptive methods in stock than did urban facilities, fewer staff members trained to provide family planning and a lower level of infrastructure (amenities such as running water, electricity and gynecologic exam tables).

Some 51% of women surveyed had used a contraceptive method between 1992 and 1995; the proportion was much higher among those who had stated in 1992 that they intended to use a method than among those who had not (73% vs. 30%). Compared with nonusers, women using contraceptives were younger and were more likely to be literate and urban and to live in a house with a cement floor and in an area with a public sewage system.

Of seven supply-side factors, four were independently related to contraceptive use—method availability at the nearest public clinic, number of nurses at the nearest public clinic, number of staff members trained to provide family planning services at the nearest facility and level of infrastructure at the nearest private provider.

Multivariate Analysis

The investigators performed a two-equation statistical modeling procedure to estimate the effects of supply-side factors and contraceptive intentions on actual contraceptive use. A main-effects model was used to identify factors that influenced contraceptive intentions in 1992, while a second, interactive model examined whether contraceptive intentions affect the relationship between family planning supply factors and method adoption.

In the main-effects model, women who were fully literate or had a cement floor in their home were significantly more likely than other women in 1992 to intend to use a method. Those who were 35 or older and those who lived in communities without a sewage system, however, were significantly less likely to do so. Of the supply-side variables, the number of nurses, the number of staff members with family planning training and the level of method availability at the nearest clinic were associated with the intention to use contraceptives.

The analysis of contraceptive use in the main-effects model indicated that when other variables were held constant, contraceptive intention was not a significant predictor of subsequent contraceptive use. Women who had a cement floor in their home were significantly more likely to adopt a method between 1992 and 1995, while those who were 25 or older were significantly less likely to do so. Method availability at the nearest public clinic, which had a positive effect on contraceptive use, was the only supply variable with a significant effect.

In the second model, the results were almost identical to those in the first model, except for the effect of method availability at the nearest clinic on adoption of family planning: This variable had a significant positive effect among women who had reported in 1992 that they did not intend to use a method, but it had no effect among those who had reported that they did plan to adopt a method.

Simulation Results

To determine the size of the effects observed in the study, the investigators conducted a series of simulations comparing the proportions of women intending to use a contraceptive in 1992 and actually using a method in 1995 under minimal, actual or optimal supply conditions (based on method availability, number of nurses, number of staff members trained to provide family planning services, and level of infrastructure). According to the simulations, 29% would intend to use a method under minimal conditions and 63% would do so under optimal conditions (compared with 52% under actual conditions).

The simulations of method adoption indicated that 37% of all women could be expected to use a method under minimal conditions, while 58% could be expected to do so under optimal conditions (compared with 52% under actual conditions). Among women who had reported an intention to use a method, those proportions were 60% and 71% (compared with 69%); however, among those who had not reported such an intention, the proportions were 13% and 45% (compared with 35%).

Discussion

The investigators note that their findings confirm the importance of both supply and demand factors in determining contraceptive behavior. However, they point out a number of unexpected findings in their study—that intentions do not predict method use when other factors are controlled for; that supply-side factors are more likely to be related to intention than to actual use; and that the effect of supply-side variables on use is stronger among women who do not intend to adopt a method than among those who do. The investigators theorize that "in a setting like Morocco, where family planning is socially accepted and services are relatively widely available, women who aspire to control their fertility tend to be successful in finding alternative sources of services and supplies, even when aspects of the local supply environments do not fully satisfy their needs."—*M.L. O'Connor*

Reference

1. Magnani RJ et al., The impact of the family planning supply environment on contraceptive intentions and use in Morocco, *Studies in Family Planning*, 1999, 30(2): 120–132.

Condom Use Increases Among Namibian Youths Following HIV Training

Namibian adolescents who received an HIV training curriculum experienced significant changes in attitudes, knowledge, intentions and behaviors concerning sexual activity and HIV.[1] Adolescents who received training were more likely than their peers to know how pregnancy occurs and how to use a condom correctly. They also were more likely to believe that they could be intimate with a partner without having sex and that they could have a girlfriend or boyfriend for a long time without having sex. The youths who received the intervention were more likely to report having used a condom at last intercourse.

The My Future Is My Choice curriculum was modeled after a program developed for black children aged 9–15 who lived in public housing developments in the United States. The Namibian curriculum, adjusted to fit the region's cultural beliefs and practices, was administered to secondary school students in 14 two-hour sessions over a seven-week period. It provided information about reproductive biology, HIV and AIDS, relationship violence, and alcohol and substance abuse, as well as training in cross-gender communication. The sessions were conducted after school by a volunteer teacher or an out-of-school youth to groups of 15–20 male and female students.

In the summer of 1996, 515 secondary students aged 15–18 enrolled in the study; about half (262) were randomly assigned to receive the HIV training. The remaining 253 participants, who acted as controls, were given the training after the study. Upon enrollment, all adolescents completed a risk assessment survey that collected demographic information and measured their knowledge about risky and protective sexual behaviors as well as their participation in such behaviors during the previous six months. They were assessed again after completing the program.

The participants were almost equally divided between males and females; their median age was 17. The majority attended church (69%) and believed they communicated well with their parents (93%). Those who received the training were more likely than those who did not to attend church (72% vs. 67%); the two groups were equally likely to report good communication with their parents.

The risk assessment included 12 true or false questions designed to measure knowledge about HIV and AIDS. At baseline, the two groups received identical scores on this measure, differing significantly on only one item. Controls were less likely than participants in the intervention group to give the correct response to the statement, "A boy does not need to use a condom if he pulls out before he ejaculates" (62% vs. 72%).

Following administration of training, study participants who had received the intervention were significantly more likely than those who had not to respond appropriately to four statements: "I can tell if someone does not have AIDS just by looking at them" (95% vs. 75%), "Taking birth control pills is one way to protect yourself from becoming infected with the AIDS virus" (84%vs. 72%), "You can get AIDS the first time you have sex" (91% vs. 80%) and "A girl can get pregnant the first time she has sex" (97% vs. 83%). Analysis of variance that controlled for knowledge at baseline, gender and age revealed a significant relationship between knowledge and the HIV training.

On average, male participants who had received training gave a significantly higher percentage of correct answers than did male controls (91% vs. 85%). The results for females were similar: Those who had received HIV education had an average score of 86%, compared with 81% for those who had not. Females with HIV training were more likely than controls to know that taking birth control pills does not protect one from HIV (83% vs. 70%), that one can acquire AIDS the first time one has sex (85% vs. 73%) and that a girl can get pregnant the first time she has sex (96% vs. 82%).

At baseline, the two groups of participants held similar attitudes towards sexual activity and condom use. At follow-up, participants who had received training were more likely than those who had not to believe they could be intimate with a partner without having sex (72% vs. 58%) and that they could have a girlfriend or boyfriend for a long time without having sex (78% vs. 71%). They were also significantly more likely to know how to use a condom properly (90% vs. 70%) and to feel comfortable obtaining condoms from a clinic (96% vs. 90%). Trained participants were less likely than their untrained peers to believe that condoms take away sexual pleasure (19% vs. 32%).

Both at baseline and at follow-up, participants in the training group were more likely than controls to report that they intended to use condoms (80–83% vs. 68–70%). At follow-up, trained participants reported having used condoms recently (78% vs. 64%). Further, among those who had received training, the proportion reporting frequent condom use rose 16 percentage points from the baseline level, compared to four percentage points among controls.

The researchers conclude that the significant changes in respondents' attitudes, knowledge, intentions and behaviors concerning sexual activity and HIV following the intervention program provide support for the adaptation and use of Western HIV prevention programs in other cultural settings.—*I. Olenick*

Reference

1. Fitzgerald AM et al., Use of Western-based HIV risk-reduction interventions targeting adolescents in an African setting, *Journal of Adolescent Health*, 1999, 25(1):52–61.

Among Young Jamaicans, Sex and Childbearing Often Begin During Adolescence

Young men and women in Jamaica begin having sex in their early-to-middle teens, and adolescent pregnancy is relatively common. According to a report on the reproductive health of 15–24-year-olds, the average age at first intercourse was 13 for young men and 16 for young women, and four in 10 young women had ever been pregnant.[1] More than half of sexually experienced young women and about three in 10 sexually experienced young men used a contraceptive method—generally a condom—the first time they had sex. Although the majority of young women who used a condom at first sex said they and their partner made that decision jointly, young men were as likely to say that they made the choice themselves as to report that they shared the decision with their partner.

The report uses data on 1,191 women and 2,279 men aged 15–24 who were interviewed in the 1997 Jamaica Reproductive Health Survey. At the time of the survey, 2% of the young women and fewer than 1% of the young men were married. Fifteen percent of the young women and 7% of the young men were in consensual unions, and another 30% of men and women were in visiting partnerships. Half of the men and one-quarter of the women were employed, and about one-third of men and women were in school.

Sexual Experience

The sexually experienced young women surveyed in 1997 had first had intercourse at a mean age of 15.9 years, while the young men had begun having sex at 13.4 years. Although the age at first intercourse among young women was the same as in the 1993 Jamaica Contraceptive Prevalence Survey, that was not the case for young men. For example, the mean age at first sex among 23–24-year-olds had declined from 14.4 to 14.0.

At the time of the survey, 70% of women aged 15–24 and 85% of men aged 15–24 were sexually experienced. At ages 15–17, more than one-third of the women (38%) and the majority of the men (64%) had had intercourse, and among 18–19-year-olds, 72% of the women and 91% of the men had had intercourse. Respondents who attended church regularly were less likely than others to be sexually experienced: Almost half (49%) of young women who attended church each week had begun having sex, compared with 83% of those who never went to church. The effect of church attendance on young men was less dramatic: Seventy percent of those who went to church weekly had initiated sexual activity, compared with 92% of those who never attended church.

The great majority of young women (83%) reported that their first sexual partner was a boyfriend, while young men were less likely to classify their first partner as a girlfriend than as a friend (38% vs. 48%). Some 13% of young men said their first partner was a casual acquaintance, compared with 2% of young women.

The younger a woman was at first intercourse, the older her first partner was likely to be: For example, 17% of those aged 18–24 at first sex reported that their first partner was six or more years older than they were, compared with 56% of those younger than 13. In contrast, 33% of those aged 18–24 at first sex said their first partner was the same age or 1–2 years older, compared with 16% of those younger than 13.

The pattern among young men was different: More than 50% of those aged 17 or younger at first sex said their first partner was the same age or 1–2 years older, compared with 15% of those aged 18–24. The

proportion who said their first partner was younger than they were rose from 13% among those younger than 13 at first sex to 59% among those aged 18–24.

Of sexually experienced respondents who had had intercourse during the three months prior to the survey, 97% of young women and 65% of young men had had one partner. Fewer than 3% of young women had had two or more partners, compared with 35% of young men.

Contraceptive Attitudes and Behavior

Of the respondents who had had intercourse in the 30 days prior to the survey, 71% of women and 80% of men had practiced contraception with their last partner. Contraceptive use among women varied little according to their relationship with their last partner, while men were most likely to use a method in a relationship other than a marriage or consensual union (81–84%). The most commonly used methods were the condom (27% of women and 61% of men) and the pill (27% of women and 12% of men).

More than half of the young women (56%) and about one-third (31%) of the young men had practiced contraception the first time they had sex. Women's use of contraceptives at first intercourse increased with age at sexual initiation, from 41% of those younger than 14 to 67% of women aged 18–24. The corresponding proportions among men were 17% and 53%. Among respondents who had practiced contraception at first intercourse, 87% of women and 92% of men had used a condom. For respondents who had used a condom at first intercourse, the most common sources were shops (35% of men and 15% of women), pharmacies (22% of men and 42% of women) and friends or relatives (26% of men).

Among women who had used a condom at first intercourse, 64% said they had made the decision with their partner and 18% each said they or their partner alone had made the choice. Men were as likely to report that the decision had been a joint one as to say the decision had been theirs alone (42% each); 16% said their partner had made the decision.

The reasons women most often gave for not using a method at first intercourse were that they did not expect to have sex (47%) and they did not know of any methods (13%). Men were most likely to report that they did not know of any methods (33%) or that they did not expect to have sex (31%).

Women believed that the condom, the pill and the injectable were the most appropriate methods for people their age (31%, 28% and 14%, respectively), while men overwhelmingly considered the condom most appropriate (81%). Most respondents believed they could afford the condom or the pill (86–95% of men and women), although fewer men thought that they could afford the injectable (63–89%).

Fertility and Childbearing

The age-specific fertility rates for young Jamaican women during the two years preceding the survey were 112 births per 1,000 women aged 15–19 and 163 per 1,000 women aged 20–24. Fertility rates were higher for women in rural areas than for those in urban areas, and for 20–24-year-olds compared to 15–19-year-olds. Among 15–19-year-olds, fertility rates ranged from 82–114 per 1,000 in urban areas to 133 per 1,000 in rural areas. The corresponding rates for 20–24-year-olds were 125–147 per 1,000 in urban areas and 201 per 1,000 in rural areas.

Overall, 43% of the young women surveyed had ever been pregnant and 39% had had a live birth. The likelihood of having ever had a pregnancy or a live birth declined as level of education and socioeconomic status rose. For example, 50% of women who had nine or fewer years of schooling had ever had a pregnancy or a live birth, compared with 43% of those with 10–12 years of schooling and 29% of those with 13 or more years of education. Overall, 33% of young women who had ever become pregnant conceived for the first time while still in school. Of these, 34% returned to school after the birth of their child. (In 1993, only 16% of young women who became pregnant while still in school returned to school.)

Ten percent of young men reported that they had ever fathered a child. This proportion rose from fewer than 1% of 15–17-year-olds to 29% of 20–24-year-olds. The likelihood of having had a child declined as socioeconomic status rose, from 14% of the poorest young men to 9% of men in the middle economic class and 7% of the wealthiest men. The likelihood of having fathered a child varied little by level of education or area of residence.

Fewer than one-quarter (23%) of young women who had been pregnant reported that their last or current pregnancy was planned, 65% said that it was mistimed and 7% reported that it was unwanted. Women aged 23–24 and married women were the most likely to have planned their pregnancy (30% and 63%, respectively). The majority of young men who had fathered a child reported that they had wanted the child (68%); the proportion rose from 59% of those who were not in union to 78% among married men. —*I. Olenick*

Reference

1. Friedman JJ, McFarlane CP and Morris L, *Jamaica Reproductive Health Survey 1997—Young Adult Report: Sexual Behavior and Contraceptive Use Among Young Adults*, Kingston, Jamaica: National Family Planning Board; and Atlanta, GA, USA: Centers for Disease Control and Prevention, 1999.

Both Unwanted Pregnancies And Abortions Are Common Among Women in Nigeria

In some areas of Nigeria, one in five women report having experienced an unwanted conception; of these, 58% had an abortion and an additional 9% attempted unsuccessfully to end the pregnancy.[1] Women who are knowledgeable about reproduction and about methods of family planning and those who are currently using contraceptives are 2–3 times as likely as others to report having had an unplanned pregnancy. Among women with unwanted conceptions, those who are familiar with contraceptives are more than seven times as likely as others to have sought an abortion.

The data for analysis came from samples of women in two local government areas—Ife, located in the southwest, and Jos, in the north. The surveys, conducted in 1995–1996, covered both urban and rural communities. All married and unmarried women aged 15–45 in randomly selected households were interviewed to collect social and demographic data, information regarding women's reproductive history and knowledge, and contraceptive practices.

Some 692 women in Ife and 824 women in Jos participated in the study. The mean age of respondents was 27; approximately one-quarter of respondents in both areas were adolescents, and about one-quarter were women in their 30s. Overall, 69% of respondents were married. Women in Ife tended to be better educated than those in Jos: More than half of respondents in Ife had obtained a secondary education, compared with fewer than one-third of those in Jos. Some 34% of participants in Jos reported that they were unemployed, nearly 10 times the proportion of unemployed respondents in Ife (4%). The majority of women in Ife were Protestant (69%), while 25% were Muslim; the remainder were Catholics or adherents of other religions. In Jos, on the other hand,

almost half of women were Muslim (47%), while 38% were Protestant and 12% were Catholic; a small proportion belonged to traditional or other religions.

About 39% of women in Jos but only 15% of those in Ife knew the most fertile period during a woman's menstrual cycle. Ninety percent of all respondents were aware of a method of family planning; however, knowledge of a modern method was more common in Ife than in Jos. Women in Ife were also more likely than those in Jos to know where to obtain a method (84% vs. 74%). About 13% of women in Ife and 10% of those in Jos were using a contraceptive at the time of the survey; the pill was the most widely used method in both regions (18–19%).

Some 20% of women in each area said they had experienced an unwanted pregnancy. Bad timing was the most common reason given by these women for not wanting the pregnancy (48% in Jos and 31% in Ife), followed by a desire to stay in school (38% and 26%, respectively) and contraceptive failure (15% and 21%, respectively). Less commonly cited reasons included the expense of raising a child (7–10%), the pregnancy's being socially unacceptable (4–6%) and abandonment by one's partner (2–6%).

Some 58% of the women who reported that they had experienced an unwanted conception indicated that they had had an abortion; an additional 9% had tried unsuccessfully to end their pregnancy. Thirty-two percent of women who had had an unwanted conception reported that they had done nothing to interrupt the pregnancy. These proportions varied little between the two areas.

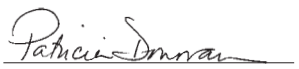
According to multivariate regression analyses, the likelihood that a woman would report having had an unwanted pregnancy was significantly associated with age: Overall, women aged 45 or older were 3.4 times as likely as those aged 15–24 to report an unwanted conception (odds ratios of 2.4 in Ife and 4.0 in Jos). Overall and in Jos, women who had a secondary education were significantly more likely to report an unwanted conception than were women who had no education (odds ratios of 1.9 and 2.6), as were those who had attended a university (3.1 and 4.7).

Overall and in Ife, women who were familiar with a contraceptive were significantly more likely than women who lacked knowledge of family planning methods to report having had an unwanted conception (odds ratios of 2.0 and 3.0). Likewise, in both areas, women who were currently using a method were about three times as likely as those who were not to report having experienced an unwanted pregnancy (2.8–3.3). Knowing the fertile period of a woman's menstrual cycle was associated with similarly increased odds.

A further logistic regression analysis using the subsample of women who had reported an unwanted pregnancy showed that, among women overall and among women in Jos, those aged 25–34 were about twice as likely as younger women to report having had an abortion. In Jos, women aged 45 and older were more than three times as likely to report having had an abortion. Overall and in Jos, women who had attended secondary school were significantly more likely than those who had had no education to report having had an induced abortion (odds ratios of 2.8 and 4.5), as were those who had had a higher education (4.1 and 5.0).

Overall, women who knew of a contraceptive method were more than seven times as likely as those without such knowledge to report having had an abortion (odds ratios of 6.1 for Ife and 3.7 for Jos). Current use of a family planning method was also associated with significantly increased odds of reporting a history of abortion, both overall (2.3) and in each area (2.5 for Ife and 2.4 for Jos).

According to the researchers, their findings demonstrate that, regardless of the legal obstacles involved, Nigerian women faced with an unwanted pregnancy frequently have recourse to abortion. The substantial minority of women who said they had been using contraceptives when they became pregnant, they say, indicates a "need for active promotion of effective family planning methods in both communities." Consequently, they conclude, Nigerian policymakers should work to design "appropriate and realistic programs within the national population policy that are focused on reducing the number of unwanted pregnancies and induced abortions in the country."—*K. Mahler*



Reference

1. Okonofua FE et al., Assessing the prevalence and determinants of unwanted pregnancy and induced abortion in Nigeria, *Studies in Family Planning*, 1999, 30(1):67–77.