

## REGIONAL CORRELATES OF CHOICE OF CONTRACEPTIVE METHODS IN NIGERIA\*

CLIFFORD OBBY ODIMEGWU

MODUPE OJO

ADEGOKE SIYAGANDE

*Obafemi Awolowo University Ile-Ife, Nigeria*

*This Study examines the contraceptive use differentials among Nigerians in three regions. It also examines the factors that determine the choice of either the traditional or modern methods of contraception. The study is a national study collecting baseline information on family planning method use in Nigeria. A total of 1,540 respondents were interviewed. Results show that contraceptive knowledge and use are increasing in Nigeria. The current use of traditional methods of family planning is 30 percent while 32 percent are currently using modern contraceptives. There is also a regional differential. Of the variables tested as the possible correlates for the choice of a particular method, the result shows that age education, religion, ethnicity, region of residence, marital status, family planning approval, and media exposure are the predictors of contraceptive use in the country. Age, ethnicity region, marital status, family planning approval, media exposure are the determinants of traditional contraceptive method use while education and religion are added as the factors for the use of modern methods of contraception. The analysis also shows that different factors affect the choice of contraceptives in the three regions in Nigeria. The policy and programmatic implications of the study are discussed.*

### INTRODUCTION

Despite declining fertility rates in many developing countries in Asia and Latin America, fertility levels in subs-Saharan Africa still remain high. Crude birth rates for most of Africa range from 45 to 52 per 1,000. To a non-African, the high birthrate of the region might suggest uncontrolled fertility. However, demographic and anthropological literature indicate that African women have traditionally practiced fertility regulation-not necessarily for family limitation but rather for birth-spacing with the objective of enhancing the health and thus the survival probability for each child (Caldwell and Caldwell 1977; Bertrand et al. 1985; van de Walle and van de Walle 1989). Traditionally, birth-spacing was achieved in Africa by means of a nearly universal taboo on postpartum sexual relations which varied in duration in

\* We are grateful to Professor A. A. Adewuyi of the same Department for permission to use his data on Contraceptive Use in Nigeria.

different societies (Odimegwu 1994). While avoidance of pregnancy has been one motive for abstinence, avoidance of contamination of the mother's milk during the period of breast-feeding is another (Odimegwu 1994; van de Walle and van de Walle 1989).

However, studies are showing that the taboo on postpartum sexual abstinence is eroding (Mabogunje 1981; Odimegwu 1995), and polygamy, an institution that facilitated postpartum abstinence is clearly on the decline. Harsh economic relations, spread of HIV/STD and urban living conditions force a physical closeness that makes abstinence more difficult to practice. Educated women consider the extended period of abstinence unreasonably inconvenient, as Caldwell and Caldwell (1977) suggested that the length of abstinence is inversely related to every measure of modernization.

Though the norms for birth-spacing in tropical Africa are well-established, the means of achieving this end are changing. If the practice of postpartum abstinence disappeared and was not replaced by other means of fertility regulation, high levels of fertility could result. It is more likely, however, that other method—traditional and modern—would be adopted to achieve birth-spacing without the drawbacks inherent in abstinence. As Caldwell and Caldwell (1977, p. 194) have pointed out “the path of fertility will be determined by the extent to which modern contraception substitutes for abstinence and ultimately by the extent to which it is more efficient than periods of abstinence as a means of birth control”.

Although national fertility regulation is an essential component of improved quality of life in any society, it was not until two decades after political independence in Nigeria that a conscious attempt was made to explore its potentials in improving the standard of living in the country. Initially, it was felt that due to abundant natural resources and the phenomenal transformation of the society occasioned by the oil boom of the 1970s, Nigeria did not have population problem. But in the early 1980s, Nigeria experienced rapid agricultural decline, mounting fiscal problems, falling commodity prices and oil crisis. The country's performance on social indicators was low. Crude birth rate was 50 per 1,000 while crude death rate was 18 per 1,000. Rate of natural increase stood at 3.2 percent while fertility rate was 6.9 percent. There was a great threat of a doubling of total population in 22 years (FHS Update 1993).

Realizing the need to balance sustainable economic development with rapid population growth, the government began efforts to take some policy initiatives for population activities in the country (as exemplified in the 1981-1985 Fourth National Development Plan). In 1984 Nigeria endorsed the declaration of African Regional Population Conference and the

International Population Conference on fertility regulation and development through family planning. The Federal Ministry of Health was mandated to develop a population policy that will serve as a fulcrum on an integrated family planning programme in Nigeria (FHS Update 1993). This led to the 1988 National Population Policy.

The Policy released in 1988 notes that the incidences of unwanted pregnancies, abortion, abandoned babies, and child abuse have greatly increased and constituted a national social problem. It notes that voluntary fertility regulation and organized family planning have proved to be effective, preventive and low cost measures to control such social problems. Also, family planning reduces maternal and infant morbidity and mortality as well as stems rapid population growth in the shortest possible time. The policy called for an accelerated fertility regulation, and that family planning programmes should be formulated and implemented within the context of Nigeria's health care systems.

Based on the above observations the document emphasized the value of family planning and child-spacing on the stability and well-being of the family. It also called for the incorporation of family planning services into Maternal and Child Health services. Also, government is to ensure the availability and accessibility of family planning services to all couples and individuals seeking such services at affordable prices. The National Family Planning Programme is designed to make available a variety of contraceptive methods to people who need them.

A very important aspect of the Policy on family planning is the one that stresses the importance of information, education, and communication. It declares, "special attention shall be paid to educating and motivating the population at grassroots level on the health, social, and demographic values of family planning. Wherever possible, family planning education shall be incorporated in training programmes for women ... and special emphasis on informational program shall be given to teaching the male population with messages of social and economic implications of excessive child bearing and the moral responsibility of procreation" (Fed. Govt. of Nigeria 1988, p.147). In other word, it calls for concerted efforts campaign to improve awareness and acceptance of family planning methods.

Since the formulation and publication of this policy, various efforts have been mounted by the government and NGOs to educate Nigerians on the benefits and methods of family planning available and the importance of proper chld-spacing. The informational strategies include radio, TV campaigns, poster and billboard advertisements, dramas warning people on the dangers of large family size, HIV/AIDs, sexually tansmitted diseases.

Some NGOs have sponsored Nigerian musicians to produce records dwelling on the virtue of restraint in procreation and the use of family planning methods. There are also drama sketches on dangers and consequences of premarital sex.

The study described here is an attempt to examine the effects of factors that may play roles in determining contraceptive use and method choice in Nigeria. Two basic questions will be addressed here, namely: (1) are there contraceptive use differentials among Nigerians irrespective of their marital status, and if so, what are the factors responsible? and (2) do current users of family planning methods choose modern or traditional methods and what factors explain the choice? Therefore the specific objectives of this paper are: (1) To determine the prevalence and pattern of use of modern and traditional methods of contraception; (2) To identify correlates of method choice and determine how these differ for traditional versus modern methods used across three Nigerian regions.

## METHODOLOGY

Data for this survey were collected from a representative sample of Nigerians regardless of age and marital status in three states of Nigeria, namely Kano, Lagos, and Anambra States. The three dominant ethnic groups in Nigeria are residing in these states. For instance, the Hausa/Fulani ethnic group lives in Kano State, the Yoruba in Lagos State and Igbo ethnic group dominates in Anambra State. These three States represent clearly the three former regions in Nigeria. Nigeria is a multi-ethnic society. Available evidence shows the country is inhabited by over four hundred ethnic groups. Except for the effects of migration, ethnic groups are geographically homogenous and often coincide with linguistic cultural and religious groups. Most of the ethnic groups are concentrated in particular parts of the country. For example the Hausas are found in the Northern parts of the country while the Igbos are in the East and the Yorubas in the West. Islam and Christianity are the two main religious groups in the country (For further reading on Nigeria's sociodemographic setting, see Nigerian Demographic and Health Survey 1990 Report; World Fertility Survey National Report on Nigeria).

The survey for this analysis was conducted for the purpose of collecting post-campaign data for assessing the impact of campaign songs on family planning behaviour, delivery, knowledge, attitudes and practice. Five hundred persons were sampled in each of the three state capitals. Equal numbers of men and women were selected in each survey site. In each of

the urban centers, a rural area was selected. Each urban center was divided into four distinct residential zones that reflect settlement patterns. Through a random sample, one of the zones was picked. Each of the zones selected was divided into blocks and two of such blocks were randomly selected in each zone. The households in each block were then listed.

A systematic sampling procedure was used in the selection of households. In each household, equal number of eligible men and women were interviewed. The villages were divided into blocks from which one village was randomly selected. A systematic random sampling of the households was adopted. Interviews were done in the local dialect of the respective State. The answers of the respondents were coded and subsequently transferred into computer readable data using EPI-INFO VERSION 5.0. Analysis was done with SPSSPC+. The unit of analysis is individual respondents.

## RESULTS

### *Profile of the Population*

Table 1 shows that majority of the respondents have primary level of education, followed by secondary (20%) and no education (15.2%). In Nigeria, a child enters primary school at the age of six and is expected to spend six more years. There are six classes in the primary school system. The secondary system had formerly five years but has later been changed to six years. Tertiary level of education varies. Polytechnic education lasts for five years while college education takes three years. The university system is four years on the average. Three-fifths of the respondents in the sample are married while 40 percent are either separated, widowed or single. Also 23.4 percent of our respondents are sales/clerical employees, 23.3% (artisans) and 22% (professionals). Clearly the majority are not in the labour force (32%) with more of the unemployed in the North.

Over 30% of the respondents are Igbo followed by the Yoruba (30%)-Hausa (26%) and others (7.2%). The great majority of respondents are Christians (56%). The majority of the Christians are in the East, which is a predominately Christian zone. Forty one percent of respondents are Muslims with the majority being in the North and West.

### *Knowledge and Use of Traditional and Modern Family Planning Methods*

In this study we want to determine patterns of use, both of traditional methods (abstinence, withdrawal, rhythm and others) and modern

**TABLE 1.** DISTRIBUTION OF RESPONDENTS' SOCIOECONOMIC CHARACTERISTICS BY REGION, NIGERIAN STUDY, 1996.

| Characteristics       | Eastern Region<br>(Enugu) | Northern Region<br>(Kano) | Western Region<br>(Logos) | Total       |
|-----------------------|---------------------------|---------------------------|---------------------------|-------------|
| <b>Current Age</b>    |                           |                           |                           |             |
| 14-24                 | 32.0 (164)                | 28.7 (146)                | 29.6 (155)                | 30.1 (465)  |
| 25-34                 | 32.0 (164)                | 30.8 (157)                | 37.2 (195)                | 33.4 (516)  |
| 35-44                 | 18.9 (97)                 | 22.2 (113)                | 19.7 (103)                | 20.2 (313)  |
| 45-54                 | 12.9 (66)                 | 62.6 (647)                | 8.2 (43)                  | 11.2 (173)  |
| 55-65                 | 4.3 (22)                  | 5.7 (29)                  | 5.3 (28)                  | 5.1 (89)    |
| <b>Sex</b>            |                           |                           |                           |             |
| Male                  | 49.7 (255)                | 46.5 (235)                | 50.4 (263)                | 48.8 (753)  |
| Female                | 50.3 (258)                | 53.5 (270)                | 49.6 (259)                | 51.0 (787)  |
| <b>Education</b>      |                           |                           |                           |             |
| None                  | 12.5 (64)                 | 17.0 (85)                 | 16.2 (85)                 | 15.2 (234)  |
| Primary               | 62.1 (318)                | 54.7 (274)                | 55.7 (292)                | 57.5 (884)  |
| Secondary             | 18.2 (93)                 | 23.6 (118)                | 18.5 (97)                 | 20.0 (308)  |
| Tertiary              | 7.2 (37)                  | 4.8 (24)                  | 9.6 (50)                  | 7.2 (111)   |
| <b>Marital Status</b> |                           |                           |                           |             |
| Married               | 61.6 (316)                | 72.1 (367)                | 46.6 (244)                | 60.0 (927)  |
| Not Married           | 38.4 (197)                | 27.9 (142)                | 53.4 (280)                | 40.0 (619)  |
| <b>Occupation</b>     |                           |                           |                           |             |
| Prof/Adm              | 29.0 (1449)               | 16.7 (85)                 | 19.1 (100)                | 21.6 (334)  |
| Sales/Clerical        | 13.1 (67)                 | 20.2 (103)                | 36.5 (191)                | 23.4 (36.1) |
| Farming               | 0.2 (1)                   | 0.2 (1)                   | -                         | 0.1 (2)     |
| Artisans              | 24.6 (126)                | 21.2 (108)                | 24.0 (126)                | 23.3 (360)  |
| Not in Labour Force   | 33.1 (170)                | 41.7 (212)                | 20.4 (107)                | 31.6 (489)  |
| <b>Ethnic Group</b>   |                           |                           |                           |             |
| Hausa/Kanuri          | 10.2 (52)                 | 66.3 (332)                | 3.7 (19)                  | 26.2 (403)  |
| Igbo                  | 82.6 (418)                | 17.8 (89)                 | 12.0 (62)                 | 37.0 (569)  |
| Yoruba                | 2.0 (10)                  | 9.2 (46)                  | 76.8 (398)                | 29.5 (4547) |
| Other Tribes          | 5.1 (32)                  | 6.8 (347)                 | 7.5 (45)                  | 7.2 (119)   |
| <b>Religion</b>       |                           |                           |                           |             |
| Islam                 | 10.1 (52)                 | 71.4 (360)                | 40.5 (212)                | 40.5 (624)  |
| Christianity          | 85.6 (439)                | 26.0 (131)                | 54.6 (286)                | 55.5 (856)  |
| Others                | 4.3 (22)                  | 2.6 (13)                  | 4.9 (26)                  | 3.9 (61)    |

contraceptives. Respondents were asked which of the contraceptive methods they knew and among those they knew of if they had used or if they were currently using the method.

Knowledge of family planning methods is nearly universal in Nigeria, as 76 percent of the respondents know of at least one method. And across the States about one-third of the respondents know of at least one method. Also 47 percent of the respondents claimed to know of a traditional contraceptive

**TABLE 2.** KNOWLEDGE OF FAMILY PLANNING METHODS AMONG ALL RESPONDENTS BY REGION AND METHOD, NIGERIA, 1996

| Extent and Type of Knowledge                    | Percent having knowledge of Family Planning |                 |                |                |
|---|---|-----------------|----------------|----------------|
|   | Eastern Region                              | Northern Region | Western Region | Total          |
| Know at least one method                        | 71.2<br>(365)                               | 72.9<br>(371)   | 83.0<br>(435)  | 75.7<br>(1171) |
| Traditional Methods                             | 43.5<br>(223)                               | 44.2<br>(346)   | 53.6<br>(281)  | 47.2<br>(729)  |
| Modern Methods                                  | 65.3<br>(335)                               | 68.0<br>(346)   | 77.5<br>(406)  | 70.3<br>(1087) |
| <i>Methods Known</i>                            |   |                 |                |                |
| Female sterilization                            | 19.9<br>(102)                               | 28.1<br>(140)   | 18.5<br>(96)   | 22.1<br>(338)  |
| Male sterilization                              | 11.3<br>(58)                                | 16.7<br>(83)    | 13.4<br>(70)   | 13.8<br>(211)  |
| Injection                                       | 22.9<br>(117)                               | 43.5<br>(216)   | 36.9<br>(192)  | 34.3<br>(525)  |
| Pill  | 39.5<br>(202)                               | 61.4<br>(306)   | 56.4<br>(294)  | 52.4<br>(802)  |
| I.U.D.  | 26.6<br>(136)                               | 32.5<br>(162)   | 33.6<br>(175)  | 30.9<br>(473)  |
| Durex/Condom                                    | 45.1<br>(231)                               | 42.4<br>(211)   | 57.6<br>(300)  | 48.5<br>(742)  |
| Diaphragm                                       | 15.2<br>(78)                                | 8.8<br>(44)     | 14.8<br>(77)   | 13.0<br>(199)  |
| Foam  | 12.7<br>(65)                                | 9.0<br>(34)     | 17.9<br>(93)   | 13.3<br>(203)  |
| Calculation Method                              | 29.5<br>(151)                               | 21.3<br>(106)   | 34.7<br>(181)  | 28.6<br>(438)  |
| Withdrawal                                      | 21.9<br>(112)                               | 30.1<br>(150)   | 25.9<br>(135)  | 25.9<br>(397)  |
| Periodic Abstinence                             | 14.5<br>(74)                                | 20.7<br>(103)   | 25.7<br>(134)  | 20.3<br>(311)  |
| Traditional Methods<br>(herbs, rings and belts) | 9.6<br>(49)                                 | 21.9<br>(109)   | 24.4<br>(127)  | 18.6<br>(285)  |

method while the majority of the respondents aware of at least one modern method. Table 2 shows that the methods most widely known are pills (52%), condoms (49%), injections (34%), IUD (31%), calculation method (29%), withdrawal (26%), female sterilization (22%), periodic abstinence (20%), and traditional methods such as herbs, rings and belts (2.5%).

Knowledge of methods differ across the three States—Anambra, Kano, and Lagos. For example in the East (Anambra), the best known method is the condom (45.1); in the North (Kano) it is pill (61.4 percent) and injection (44 percent), while in West (Lagos), it is the condom (58 percent). Similarly, knowledge of modern methods is high. In Lagos (West), seventy eight percent of respondents, 68% in (North) Kano and 65% in East (Anambra) had heard at least one modern method (table 2). Most frequently mentioned methods were the pill, condom, and injection.

By contrast, actual use of modern methods was very low while 42% of the respondents had used any methods with majority in the East (41%), 30 percent had used any traditional method and 32% used modern methods. The majority of the respondents from the East used traditional methods, followed by Lagos (West). And in the case of ever having used any modern method. 41 percent of the respondents in the west (Lagos) have used modern methods compared to respondents in the East (Anambra) (35%) and Kano (23%).

Currently, 24 percent are using some methods; 12.3 percent using traditional method and 17 percent are currently using a modern method. The majority of current users of modern methods are in the West (Lagos). 17 percent are in the North (Kano) and 14 percent are in the East (Anambra). In terms of specific methods in use, table 3 shows the condom to be the prime method (35%) followed by the pill (25.3%) and injection (11.6%). For the traditional methods, rhythm, withdrawal and periodic abstinence are the leading methods. Their use varies across the regions (states).

### *Demand and Use of Family Planning*

Individuals demand family planning for different reasons—either to avoid an illegitimate birth or to space child birth, among others (Ainsworth 1984). Contraceptive users come from various backgrounds of education, ethnic, and occupational groups. These tend to affect the demand and use of contraceptives. In the case of Nigeria, what factors motivate the people to use any of the family planning methods—traditional or modern? From the preceding analysis we find that people use both traditional and modern methods. According to the theory of consumer choice, people's choice is

**TABLE 3.** USE OF TRADITIONAL AND MODERN METHODS OF CONTRACEPTIVES BY REGION AND METHOD, NIGERIA, 1996

| Method Use                 | % Practicing Contraceptive Use |               |               |               |
|----------------------------|--------------------------------|---------------|---------------|---------------|
|                            | Enugu                          | Kano          | Lagos         | Total         |
| Ever Used Any              | 34.7<br>(178)                  | 22.6<br>(114) | 36.7<br>(201) | 41.7<br>(493) |
| Used Traditional Method    | 41.5<br>(213)                  | 20.0<br>(102) | 28.0<br>(151) | 30.1<br>(466) |
| Used Modern Method         | 34.7<br>(178)                  | 22.4<br>(114) | 38.4<br>(201) | 31.9<br>(493) |
| <i>Current Use</i>         |                                |               |               |               |
| Using any method           | 28.5<br>(146)                  | 20.6<br>(105) | 23.5<br>(123) | 24.2<br>(374) |
| Using Traditional Method   | 18.3<br>(26)                   | 10.5<br>(11)  | 8.2<br>(10)   | 12.3<br>(46)  |
| Using Modern Method        | 13.6<br>(19)                   | 16.8<br>(18)  | 20.1<br>(24)  | 16.8<br>(63)  |
| Using Female Sterilization | 2.0<br>(3)                     | 3.5<br>(4)    | 2.3<br>(3)    | 2.5<br>(10)   |
| Male Sterilization         | –                              | 0.9<br>(1)    | 1.6<br>(2)    | 0.8<br>(3)    |
| Injection                  | 6.0<br>(9)                     | 17.0<br>(19)  | 13.5<br>(17)  | 11.6<br>(45)  |
| Pill                       | 9.3<br>(14)                    | 43.8<br>(49)  | 27.8<br>(35)  | 25.3<br>(98)  |
| IUD/Coil                   | 8.0<br>(12)                    | 15.2<br>(17)  | 19.0<br>(24)  | 13.7<br>(53)  |
| Condom                     | 28.0<br>(42)                   | 27.7<br>(31)  | 49.2<br>(62)  | 34.8<br>(135) |
| Diaphragm                  | 2.7<br>(41)                    | 0.9<br>(1)    | 1.6<br>(5)    | 1.8<br>(11)   |
| <i>Traditional Methods</i> |                                |               |               |               |
| Rhythm/Calendar            | 33.3<br>(50)                   | 144.3<br>(16) | 149.0<br>(24) | 23.2<br>(90)  |
| Withdrawal                 | 22.0<br>(33)                   | 31.3<br>(35)  | 2.7<br>(16)   | 21.6<br>(84)  |
| Periodic Abstinence        | 18.7<br>(28)                   | 11.6<br>(13)  | 12.7<br>(16)  | 14.7<br>(57)  |
| Periodic Abstinence        | 18.7<br>(28)                   | 11.6<br>(13)  | 12.7<br>(16)  | 14.7<br>(57)  |
| Herbs/Rings/Belts          | 0.7<br>(1)                     | 5.4<br>(6)    | 5.6<br>(7)    | 3.6<br>(14)   |

constrained by available resources and relative prices, with increased

income and substitution effects (Okoiie 1990). In this paper we adopted the reduced form of this model in which we assumed that the demand and use of family planning is a function of explanatory variables assumed to be outside one's control.

The contraceptive demand and use decision were analysed within a choice-theoretic framework. The model developed is based on a binary representation of the contraceptive demand and use decision in which the decision-maker is faced with two alternatives—to use or not use: which type to use and which type not to use. The utility theory of discrete choice models developed by McFadden was applied in developing the model (Chow 1983; Okejie 1990). If each alternative is characterized by attributes of the decision-maker and of the community, the decision-maker chooses the alternative from which he derives greater utility. The function estimated is of the form:

$$\text{Log}_e \frac{P}{1-P} = b_0 + b_1X_1 + b_2X_2 \dots b_nX_n$$

where  $P$  is the probability of ever using contraceptives, and or ever using either the traditional or modern methods.  $\beta_0$  is a constant while  $B_s$  are regression coefficients and  $X_s$  are independent variables. Under this approach, the dependent variable for each observation in our study takes the value of one if the respondent ever uses either traditional or modern methods contraceptives. A value of 0 is assigned to those individual women who never contracept or uses any of the two types of method. The independent variables are education, age marital status, religion, sex, ethnic group, marital status, family planning approval and media exposure. These variables are dichotomised to assume a binary form.

In the East, the determining factors of current use of family planning and use of modern or traditional methods are age, education, religion, ethnic group, marital status, family planning approval, and media exposure. It is clearly shown that in the Eastern part of Nigeria, those not in marital union are more likely to use contraceptives: 41% more likely to use traditional methods than the various reference groups. Family planning approval and media exposure are good predictors of current use, use of modern and traditional methods in the East (table 4).

In the Northern region, the predictor variables are education, marital status, and family planning approval. Place of residence only has affect in the use of modern methods, showing that those in the rural parts of North are 42% less likely to use any modern method compared to those in the urban areas. It is very surprising that media exposure has no effect in that part of

**TABLE 4.** RESULTS OF LOGISTIC REGRESSION SHOWING LOG ODDS OF CHARACTERISTICS PREDICTING PATTERNS OF CONTRACEPTIVE USE IN EASTERN NIGERIA

| Characteristics       | Current Use of FP | Use of Traditional Methods | Use of Modern Method |
|-----------------------|-------------------|----------------------------|----------------------|
| <i>Age</i>            |                   |                            |                      |
| 25-34                 | 0.4773            | 0.0140                     | 0.9020*              |
| 35-44                 | 1.1519*           | 0.5880*                    | 1.3520*              |
| 45-54                 | 0.1939            | 0.4780                     | 0.8640               |
| 55-66                 | 0.2155            | 0.2837                     | 5.1159               |
| <i>Education</i>      |                   |                            |                      |
| Primary               | 0.4767            | 0.2135                     | 0.4880               |
| Secondary and above   | 0.9413*           | 0.6470                     | 0.8118***            |
| <i>Region</i>         |                   |                            |                      |
| Christianity          | 0.2511            | 0.0497*                    | 0.3764               |
| Others                | 0.3363            | 1.1104                     | 0.2884               |
| <i>Sex</i>            |                   |                            |                      |
| Male                  | 0.2740            | 0.6059*                    | 0.0111               |
| <i>Ethnic Group</i>   |                   |                            |                      |
| Igbo                  | 0.7988            | 2.7340*                    | 0.3084               |
| Yoruba                | 1.6620***         | 2.6920*                    | 1.1388               |
| Others                | 0.4526            | 2.2050***                  | 0.4370               |
| <i>Marital Status</i> |                   |                            |                      |
| Married               | 0.9040*           | 1.4076*                    | 0.0038               |
| FP approval           | 0.8719*           | 0.5589***                  | 1.0712*              |
| Media exposure        | 0.8698*           | 0.5872*                    | 0.9428*              |
| Constant              | -5.2780           | -6.5290                    | -4.3120              |
| -2 Loglikelihood      | 612.774           | 488.648                    | 408.831              |
| X <sup>2</sup>        | 88.69             | 64.34                      | 48.9                 |
| DF                    | 16                | 16                         | 16                   |

Notes: \* significant at .05 \*\* significant at .01 \*\*\* significant at .001

Reference Categories: Age 14-24; Education None; Religion Islam; Sex Female; Ethnic Group Hausa; Marital Status Not in Marital Union.

the country whether one approves of family planning or not. Whether one approves of family planning is a more important factor than all others. It is shown that those who approve of family planning are two times more likely to use contraceptives than those who disapprove (table 5).

Table 6 shows that in the West, age, place of residence, marital status, family planning approval, and media exposure to family planning are critical predictors of contraceptive use. The predictors of use of traditional methods are age, marital status (negative probability), family planning approval, and media exposure.

Clearly the table shows that those aged 25-34 and 35-44 have less

**TABLE 5.** RESULTS OF LOGISTIC REGRESSION SHOWING LOG ODDS OF CHARACTERISTICS PREDICTING PATTERNS OF CONTRACEPTIVE USE IN NORTHERN NIGERIA

| Characteristics           | Current Use of FP | Use of Traditional Methods | Use of Modern Method |
|---------------------------|-------------------|----------------------------|----------------------|
| <i>Age</i>                |                   |                            |                      |
| 25-34                     | 0.0618            | 0.0260                     | 0.5594               |
| 35-44                     | 0.1710            | 0.0176                     | 0.6828               |
| 45-54                     | 0.2736            | 0.3109                     | 0.6562               |
| 55-66                     | 0.3366            | 0.9520                     | 6.6879               |
| <i>Education</i>          |                   |                            |                      |
| Primary                   | 0.0149            | 0.1613                     | 0.0927               |
| Secondary and above       | 1.4498*           | 0.6048                     | 1.3673*              |
| <i>Religion</i>           |                   |                            |                      |
| Christianity              | 0.7506            | 0.1123                     | 0.2560               |
| Others                    | 1.6750            | 0.7343                     | 14.8718              |
| <i>Sex</i>                |                   |                            |                      |
| Male                      | 0.1975            | 0.6446                     | 0.4049               |
| <i>Ethnic Group</i>       |                   |                            |                      |
| Igbo                      | 0.1564            | 0.9952                     | 0.0265               |
| Yoruba                    | 0.2260            | 1.0964                     | 0.1806               |
| Others                    | 0.3222            | 0.5029                     | 0.4617               |
| <i>Place of residence</i> |                   |                            |                      |
| Rural                     | 0.3855            | 0.4732                     | 1.4240               |
| <i>Marital Status</i>     |                   |                            |                      |
| Married                   | 1.3588*           | 1.4576*                    | 1.1948               |
| <i>FP approval</i>        | 2.7885**          | 2.6606**                   | 2.9050**             |
| <i>Media exposure</i>     | 0.0719            | 0.5237                     | 0.0924*              |
| Constant                  | -4.8906           | -5.6495                    | -5.2067              |
| -2 Log likelihood         | 518.157           | 344.35                     | 462.408              |
| X <sup>2</sup>            | 198.69            | 96.704                     | 175.57               |
| DF                        | 16                | 16                         | 16                   |

Notes: \* significant at .05 \*\* significant at .01 \*\*\* significant at .001

Reference Categories: Age 14-24; Education None; Religion Islam; Sex Female; Ethnic Group Hausa; Marital Status Not in Marital Union.

probability of using modern methods than those aged 14-24. Those with primary level of education have a 52% likelihood of using modern methods compared to the none educated category, while those with secondary education and above have a higher probability of using modern methods. Male respondents are more likely to use modern method than are female respondents. Christianity has a positive effect (as Christians are more likely to use contraceptives than the other religious groups). Rural place of residence has a negative effect on the use of modern methods in the West.

**TABLE 6.** RESULTS OF LOGISTIC REGRESSION SHOWING LOG ODDS OF CHARACTERISTICS PREDICTING PATTERNS OF CONTRACEPTIVE USE IN WESTERN NIGERIA.

| Characteristics           | Current Use of FP | Use of Traditional Methods | Use of Modern Method |
|---------------------------|-------------------|----------------------------|----------------------|
| <i>Age</i>                |                   |                            |                      |
| 25-34                     | 1.0719*           | 0.9316***                  | 0.9419*              |
| 35-44                     | 1.2313*           | 1.7229*                    | 1.0280*              |
| 45-54                     | 1.0831*           | 1.7725*                    | 0.1826               |
| 55-66                     | 1.0617            | 1.7609*                    | 0.0964               |
| <i>Education</i>          |                   |                            |                      |
| Primary                   | 0.2422            | 0.3732                     | 0.4818***            |
| Secondary and above       | 0.3569            | 0.0467                     | 0.6407***            |
| <i>Religion</i>           |                   |                            |                      |
| Christianity              | 0.3766            | 0.2113                     | 0.5300***            |
| Others                    | 0.9800            | 0.9647                     | 1.2243*              |
| <i>Sex</i>                |                   |                            |                      |
| Male                      | 0.4127            | 0.4539                     | 0.5974*              |
| <i>Ethnic Group</i>       |                   |                            |                      |
| Igbo                      | 0.8087            | 0.0224*                    | 0.4797               |
| Yoruba                    | 0.4098            | 0.2652                     | 0.1131               |
| Others                    | 0.7590            | 0.5229                     | 0.3830               |
| <i>Place of Residence</i> |                   |                            |                      |
| Rural                     | 0.6971*           | 0.3834                     | 0.6913*              |
| <i>Marital Status</i>     |                   |                            |                      |
| Married                   | 0.0405            | 1.31407*                   | 0.2810               |
| FP approval               | 1.2630**          | 1.0816**                   | 1.4827**             |
| <i>Media exposure</i>     |                   |                            |                      |
| Constant                  | -4.8906           | -5.6495                    | -5.2067              |
| -2 Log likelihood         | 518.187           | 344.35                     | 462.408              |
| X <sup>2</sup>            | 198.69            | 96.704                     | 175.57               |
| DF                        | 16                | 16                         | 16                   |

Notes: \* significant at .05 \*\* significant at .01 \*\*\* significant at .001

Reference Categories: Age 14-24; Education None; Religion Islam; Sex Female; Ethnic Group Hausa; Marital Status Not in Marital Union.

Family planning approval and media exposure are consistently critical predictors of modern contraceptive use in the Western part of the country (Odimegwu 1995).

## SUMMARY AND DISCUSSION

This survey was conducted for the purpose of obtaining baseline data before assessing the impact of family planning campaign songs on family planning acceptance and adoption in Nigeria. This analysis shows that the

**TABLE 7.** SUMMARY TABLE OF PREDICTORS OF CONTRACEPTIVE USE AND METHOD CHOICE

| Predictor Variables | East | North | West |
|---------------------|------|-------|------|
| Age                 | *    |       | *    |
| Education           | *    | *     |      |
| Religion            | *    |       | *    |
| Ethnic Group        | *    |       |      |
| Marital status      | *    | *     | *    |
| FP approval         | *    | *     | *    |
| Media Exposure      | *    |       | *    |
| Place of residence  | ns   | *     | *    |

\* = significant

ns = not significant

educational attainment of respondents is a major factor in the use of family planning methods and in the type of method use. The analysis shows that the educated groups are more likely to use modern contraceptives instead of traditional methods. This indicates that raising the level of education is one effective way of advancing family planning acceptance and increasing the demand for contraceptive services in Nigeria. The result of the analysis shows that sex of the respondents have little effect on the contraceptive method choice and use. This may be explained by the fact that contraceptive method choice and use would vary among the males and females of the unmarried sampled.

Family planning activity in Nigeria has been extensively influenced and controlled by the government. The logistic regression model used in this analysis shows that family planning is more acceptable in the southern States of Old Anambra and Lagos than in the North. Two major reasons account for this. One is the level of education and awareness in the South, and the second is the region's religious background. While the South is predominantly Christian with a liberal approach to the issues, the North is Muslim dominated area which is fiercely opposed to family planning and promotes ideas against family planning. In fact when the public announcement for the acceptance of family planning started in the North, some Muslim sects sponsored advertisements on radio and television to counter the effect of the government-sponsored campaign. The fact that there is an ethnic difference in the use of family planning methods shows the need to consider specific cultural milieu in the formulation of population programmes. There is no doubt that the family planning campaign mounted in Nigeria has a positive effect on the acceptance and adoption of family planning methods in Nigeria. This, again, calls for the

need to intensify the efforts. Moreover attention should be focussed in the North where the acceptance level is low.

## REFERENCES

- Ainsworth, M. 1984. "Family Planning Programmes: The Clients Perspectives." *World Bank Staff Working Papers* No. 676.
- Bertrand, J. I., N. Mangani, Matondo, Mansilu, and F.G. Landry 1985. "Factors Influencing the Use of Traditional versus Modern Family Planning Methods in Bas Zaire." *Studies in Family Planning*, 16(6): 332-341.
- Caldwell, J. C., and P. Caldwell. 1977. "The Role of Marital Sexual Abstinence in Determining Fertility: a Study of the Yoruba in Nigeria." *Population Studies* 31(2): 193-217.
- Chow, G. C. E. 1983. *Econometrics*. New York: McGrawHill Book Company.
- Family Health Services Update 1993. *FHS Newsletter*. Family Health Services, Lagos, Nigeria
- Mabogunje, A. I. 1981. "Policy Implications of Changes in Childspacing Practices in Tropical Africa." pp. 303-316 by H. Page and L. Lesthaghe (eds.) in *Child-Spacing in Tropical Africa: Tradition and Change*. London: Academic Press. 303-316.
- NDHS. 1990. *The Nigerian Demographic and Health Surveys National Report*, Federal Office of Statistics Lagos, Nigeria.
- Odimegwu, C. O. 1994. "Lactation, Birth-Spacing and Fertility among the Igbo of Eastern Nigeria." Doctoral Dissertation, Department of Demography and Social Statistics, O.A.U, Ile-Ife, Nigeria.
- \_\_\_\_\_. 1995. "Critical Predictors of Contraceptive Use among Currently Married Nigerian Women." Paper submitted to *International Family Planning Perspectives*, New York.
- Okojie, C. E. F. 1990. "Some Determinants of Contraceptive Behaviour in Bendel State Nigeria." *Journal of the Population Association of Nigeria* 2(1): 35-48.
- Van de Walle, E., and Francine van de Walle. 1989. "Postpartum Sexual Abstinence in Tropical Africa." Working Paper No. 17. African Demography Working Papers, Population Studies Training Center, University of Pennsylvania, USA.

**CLIFFORD O. ODIMEGWU** received his Ph. D. in Demography and Social Statistics from the Obafemi Awolowo University, Ile-Ife, Nigeria. His research focus is reproductive health and social demography.

**MODUPE OJO** received her B.Sc degree in Demography and Social Statistics, Obafemi Awolowo University, Ile-Ife, Nigeria and is currently preparing to start her postgraduate studies in the same Department.

**ADEGOKE SIYAGANDE** received his B. Sc in Demography and Social Statistics, O.A.U., Ile-Ife, Nigeria, where he has registered for the postgraduate studies in the same Department.