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# **Socio-economic determinants of contraceptive use among rural women in Ikwuano Local Government Area of Abia State, Nigeria**

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**The study examined the socio-economic determinants of contraceptive use among rural women in Ikwuano Local Government Area of Abia State. The study was conducted in the four clans in the area. Ikwuano was purposively selected because of its classification as rural and high dependence on agriculture. Data for the study were collected through a service questionnaire. A total of 200 women were randomly selected from each of the four clans. Data were analyzed using descriptive statistics and Maximum Likelihood Probit regression analysis. The analysis strongly suggests that mass media messages have a powerful effect on modern contraceptive use. Exposure to mass media messages will result to greater likelihood of use of modern contraception. Education is positive in explaining women's current use of contraceptives. Educated women are more likely to appreciate the advantages of having fewer, better educated children. The Probit result further show that the extended family system is opposed to measures that lower fertility. The family size variable shows disposition to the non-use of contraceptives. Information about contraceptives use was mainly obtained from primary health centres. The study recommends that primary health centres should be well-equipped to render family planning services.**

**Key words:** Socio-economic, contraceptives, population, fertility, Probit, women.

## **INTRODUCTION**

The subject of birth control conjures up a serious population problem. Population here means any number of people inhabiting a given territory or locality such as village, city, state or country. Rapid population growth and over population have remained topical issues of great concern to many national governments and the international community (Lucas, 1992; Oliver, 1995; Feyisetan and Ainsworth, 1994; Cohen, 2000). Many research works including those of Foreit and Frejka (1998), Kolsand Sherman (1998), FMHHS (1994), Okoroafor (2001) have directly or indirectly associated high population growth rates, especially in the face of low productivity, with different kinds of social problems ranging from poverty, scarcity of land, hunger and

environmental degradation to political instability. In order to arrest the dangers inherent in high population growth rates, many countries such as Korea, Brazil, Columbia, China, India, Bangladesh and Malawi have successfully applied family planning as a panacea (Moni, 1992; World Bank, 1994; Cohen, 2000; Chinese Embassy, 2003).

Nigeria has also adopted family planning as a strategy to curb the high rate of population growth that it is presently experiencing. However, the acceptance rate of this strategy or practice is still low, as revealed by FOS (1994, 1997, 2000). Several studies have revealed that inspite of the efforts made by the government in this direction, the adoption rate of modern birth-control facilities and services or family planning in Nigeria remains largely insignificant (FOS, 1997; Haub and Yanagishila, 1992, Population Reference Bureau, 2002).

The government of Nigeria has adopted various measures to address the nation's population and its

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attendant problems. Paramount among the measures, is the formulation of a national policy on population, the primary objective of which "... to stem the continuing burden of high fertility and population growth rates in the health of families, their standard of living, the country's agriculture and food availability, unemployment, dwindling educational opportunities and limited economic resources (FMI, 1993)".

One important policy question yet unanswered is, which better access to contraceptives can increase their use, thereby accelerating the process of fertility decline (Bongaarts et al., 1990; Bongaarts, 1994; Princthett, 1994). The population problem is acute in rural communities, FOS (1994) survey revealed that the use of modern methods of birth control rose from 1% in 1981 to 11% in 1994 and declined to 7.1% in 1995. Another general household survey carried out between 1997 and 1998 indicated that only 5.1% of all women in the country were currently using family planning while the remaining 94.9% were not. This has exacerbated the population problem in Nigeria put at 140 million based on 2005 census estimate. The problem is more acute in rural areas where poverty is highest. Of the extremely poor in Nigeria, 85% lived in rural areas and two-third lived on farms. The study therefore, examines the socio-economic factors influencing contraceptive utilization among rural women.

## MATERIALS AND METHODS

### The study area

The study was conducted in Ikwuano Local Government Area (LGA) of Abia State. Ikwuano LGA is made up of four clans: Ibero, Oloko, Ariam and Oboro. The LGA is bounded by Bende LGA in the east, Umuahia North LGA in the north, Isiala-Ngwa LGA in the west and Obot-Akara LGA of Akwa-Ibom State in the south. The major occupation of the people is farming, and accounts for about 85% of the entire population while petty trading and transport business occupies the minor sector.

### Sampling techniques

Ikwuano LGA was purposively chosen for the study because by setting and characteristics, it is a rural locality. The study was conducted in the four clans in the Local Government. In each clan, a total of 50 women were randomly selected for the study given a sample size of 200 women.

### Data collection

Data were collected with a structured questionnaire. Direct interviews were equally undertaken in the course of the study. Health records of the Primary Health Care Centre of the Community were equally examined.

### Data analysis

Data were analyzed with the use of descriptive statistics such as

frequencies, means and percentages and correlation analysis. The probit regression model describing contraceptive usage is stated in the reduced form as:

$$\pi_{ij} = \alpha + \beta^1 X_{ij} + \beta^2 Z_j + e_{ij},$$

where  $\pi_{ij}$  = the probability that the  $i$ th woman on the  $j$ th community uses a modern method of contraception,  $X_{ij}$  = a vector of exogenous individuals and household factors affecting the demand for children,  $Z_j$  = community-level factor associated with the demand and supply of contraceptives and  $e_{ij}$  = unobserved individual specific heterogeneity, such as a women's individual fecundity, which is assumed to be independent and identically distributed across observation.

## RESULTS AND DISCUSSION

### Socio-economic factors and the use of modern contraceptive methods

The influences of socio-economic factors on the use of modern contraception were examined. Table 1 presents the bivariate statistics between current use of modern contraception and various socio economic variables. Exposure to mass media messages, either through hearing family message on radio or seeing advertisement about AIDS appears to be highly correlated with the use of modern contraceptive. It is only the p-value of exposure to mass media messages that is statistically significant in its relationship to the use of contraceptive methods. The implication is that the use of contraceptive methods will increase with access to media messages on contraceptive information. Access to contraceptive services is perceived to increase contraceptive use. In this paper, access to reproductive health services is measured in terms of availability within locality. It was found that 56.4% of the women had access to information on contraceptive use in the primary health centres within their locality. Equally, 33.7% never went to the health clinic for any information. Again, 77.8% obtained contraceptive information in hospital. The bivariate statistics show some evidence that proximity to health centre in rural area is associated with greater use of modern contraception. A final important strategy to promote greater contraceptive use is to improve program quality. (Kols and Sherman, 1998).

### Determinants of contraceptive usage

The Probit analysis was to determine factors that explain use or non-usage of contraceptive method. The individual, household and community variables taken into consideration include age of the woman, the level of education, age of husband, education of husband, family size, distance to source of contraceptive acquisition and household income. The Probit result is shown in Table 2.

The model is estimated for the full sample of women. Contraceptive use is modeled as a function of a woman's

**Table 1.** The influence of socio-economic factors on the use of modern contraceptive methods.

<b>Socio-economic factors</b>	<b>Current user (%)</b>
<b>Exposure to mass media message</b>	
<b>Heard family planning message in radio</b>	
Yes	44.0
No	49.2
P- value	<0.07*
<b>AIDs awareness campaign in the last 12 months</b>	
Yes	100
No	-
P- value	<0.14
<b>Accessibility</b>	
<b>Family planning obtainable from pregnancy</b>	
<b>Health care facility within locality</b>	
Yes	56.4
No	33.7
P-value	<0.18
<b>Family planning obtainable from hospital located within</b>	
yes	77.8
No	18.6
P- value	<0.21
<b>Service provider characteristics</b>	
<b>Nearest source of family planning is</b>	
Hospital	52.7
Health clinic	40.9
Patent machine shop	7.5
P-value	<0.53

Source: Field study, 2006. \* Significant at 10%. This implies that radio messages on family planning will positively influence the use of modern contraceptive methods.

**Table 2.** Probit results of determinants of contraceptive use among women in Ikwano.

<b>Variables</b>	<b>Coefficient</b>	<b>Standard error</b>	<b>T-value</b>
Intercept ( $x_0$ )	-2.39694***	1.08844	-2.20219
Age of women ( $x_1$ )	-0.37692	0.41716	-0.90353
Education of women ( $x_2$ )	0.24817***	0.07607	3.2638
Age of husband ( $x_3$ )	0.53429*	0.42338	1.26196
Education of husband ( $x_3$ )	0.28596**	0.16160	1.76963
Distance to source ( $x_4$ )	-0.00112	0.04822	-0.03445
Family size ( $x_5$ )	-0.31820***	0.18739	-1.69811
Family income ( $x_6$ )	-0.00431	0.02772	-0.15561

Sources: Field Survey, 2006.

Summary Statistics: Sample Size (158), Number of iteration (20),  $X^2$  test: 211.206\*\*\*, Level of significance: \*\*\* = 1%, \*\* = 5%, \* = 10%.

age, her education, the education of her husband, and proxies for their household wealth. These variables make

up the standard set of exogenous variables in microeconomic models of human behaviour. Other variable such

as age at marriage, parity, or desired family size are usually treated as endogenous and, consequently, are not included in the reduced form specification (Cohen, 2000).

Female education appears to be an important determinant of current contraceptive use, perhaps because more educated women are more likely to appreciate the advantages of having fewer, better educated children. Education of women is statistically significant in explaining current contraceptive use (Table 2). Cohen (2000) reported that small amounts of education have been found to sometimes raise rather than lower fertility because it breaks down traditional birth-spacing practices such as prolonged breastfeeding or postpartum abstinence without lowering fertility desires or increasing age at marriage. Furthermore, more educated women are less likely to be fatalistic toward the use of family planning and more likely to be knowledgeable about alternative methods of family planning and their potential side-effects.

A husband's education is likely to increase the likelihood of a woman using a contraceptive method as opposed to lowering it, perhaps an indication that male and female preferences are very similar. The coefficient of husband's education is significant at 5% level. From a theoretical standpoint, the effect of male education on contraceptive use is ambiguous. It can be either positive or negative depending on parents' preferences. The result in Table 2 shows that husband's education is a positive determinant of current contraceptive use.

Family size is statistically significant at 5% level in explaining non-use of contraceptive. This is however expected as extended family system is a feature of African social organisation and family formation. In large subsistence economies however, as is the case in much of sub-Saharan African, the economic contribution of children to farm work and family output is enormous and cannot be ignored. In many African societies, children confer status on their parents and the family patriarch and provide both a form of risk insurance in an uncertain environment and an investment in old-age security. All of these factors provide additional important incentives for high fertility.

## Conclusion

Access to contraceptives is the most direct intervention for lowering fertility. The study on socio-economic determinants of contraceptive use is timely against the background of the Nigeria case where rate of population growth is higher than the growth rate of food production. The increasing rate of rural poverty and high fecundity in these areas are subject of concern to policy makers. The study used micro-level data from rural women to examine ever-use and non-use of contraceptive among women. Maximum-likelihood Probit model was used to assess the

effect of individual, household and community variables on contraceptive use. The result shows that mass media explosive and contraceptive choice are strongly associated, indicating that more exposure to media messages, the greater the likelihood of use of modern contraceptive. The choice of service provider is weak as women can obtain service from any of the providers convenient for them. Education is a strong determinant of use of contraceptive. High education is usually associated with lower fertility because education tends to delay marriage, increase the value of women's time and increase the likelihood that they engage in paid employment.

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