



## Socio-Economic Determinants of Farmers' Awareness on Modern and Traditional Family Planning Methods in Abia State, Nigeria

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### Abstract

The study assessed the socio-economic determinant of farmers' awareness of modern and traditional family planning methods in Abia State, Nigeria. Specifically, the following objectives were used to; describe the socio-economic characteristics of the respondents, identify the respondents' sources of information on family planning methods and assess farmers' level of awareness of family planning methods. Purposive and multi-stage random sampling techniques were used to select a sample size of 144 respondents. They were randomly selected across two communities each from nine Local Government Areas from the three agricultural zones of Abia State. The study employed primary data and secondary information. Descriptive and inferential statistics were used. The results showed that 72% of the respondents were married, 56% had farming as their primary occupation, 94% had one formal education or another and the mean age of 40. The respondents' main sources of information on family planning methods were radio, television, friends and government health workers. About 97% of the respondents were aware of one method of family planning or another. Multiple regression analysis showed that sex at 5%, education at 5%, occupation at 5%, and household size at 5% influenced the awareness of family planning methods significantly. Based on the findings, it was concluded that the farmers' level of awareness of family planning methods was moderate. The study, therefore, recommended among others the provision of more educational opportunities in the rural areas to teach family planning methods.

**Keywords:** *Awareness, farmers, and family planning methods*

### Introduction

Family planning allows people to maintain and plan their desired number of children, if any, and to determine the spacing of their pregnancies at the required ages. It is achieved through the use of contraceptive methods and the treatment of infertility. (Anyanwu, Nwachukwu and Onuoha, 2020). Family planning is achieved through the use of different contraceptive methods and the treatment of involuntary infertility. A woman's capacity to space and limit her pregnancies has a direct effect on her health and well-being as well as on the result of each pregnancy (PMNCH, 2019). Family planning reduces the risk of abortion, and death of children, prevents HIV/AIDs, permits people and enhances education, reduces adolescent pregnancies, and slows down unfeasible population growth. (WHO, 2019). Family planning prevents about one-third of pregnancy-related deaths, as well as 44% of newborn infant deaths. (PMNCH, 2019). This is the fact that timing and spacing of pregnancies at least 2 years between births is needed to suppress unfavourable pregnancy outcomes, including high rates of prematurity, malnutrition and stunting in children

(PMNCH, 2019). Family planning entails two methods: Traditional and Modern methods. Modern and traditional methods are the scientific and artificial measures and devices used to prevent unwanted pregnancies. The traditional methods of family planning include: induced abortion, withdrawal, rhythm/calendar, herbs and roots, charms, prolonged breastfeeding and abstinence, while the modern methods include: condoms, diaphragm, vaginal cream, oral contraceptives or pills, Intra-Uterine Devices (IUD), implant, injectables and sterilization. (Anyanwu *et.al*, 2020; Nwachukwu and Obasi, 2008). Nigeria is the most populated nation in Africa and the seventh most populous in the world (UNFPA, 2023) Despite a high rate of fertility of 5.5 per woman and a high population growth rate of 3.2%, Nigeria's contraceptive rampancy is one of the lowest in the world (UNFPA, 2023). The 2021 Nigeria Demographic and Health Survey (NDHS) shows that overall 17% of current rural farmers in Nigeria are using a contraceptive method, an increase of only 2% points since the 2017 NDHS (NPC, 2021). Many farmers in Nigeria have been faced with poor

opportunities for education on family planning methods, traditional norms that restrict their physical mobility and autonomy to accept and use contraceptives, inadequate personnel providing family planning services, the inadequate availability of infrastructural facilities for family planning services, inadequate information on family planning methods and the resultant inadequate awareness, has led to an increase in childbearing (Anyanwu, et.al, 2020; WHO, 2019; Nwokedike, 2012), which led this research on the socio-economic determinant of farmers awareness of modern and traditional family planning methods in Abia State, Nigeria. Specifically, the objectives of the study were to;

- (i) describe the socio-economic characteristics of the respondents,
- (ii) identify the respondent's sources of information on family planning methods and
- (iii) assess farmers' awareness level of family planning methods.

### **Hypothesis**

HO<sub>1</sub>: There is no significant relationship between some socio-economic characteristics of the respondents and awareness of family planning methods.

### **Methodology**

The study was conducted in Abia State. The state was created on 27<sup>th</sup> August 1991 out of the old Imo State. Agriculture occupies the prime position due to the existence of rich soil in most parts of the State. The state comprises three agricultural zones: Ohafia, Umuahia and Aba. Crops like cassava, yam, vegetable, oil palm, cocoa, rubber, coffee and coconut are cultivated in large quantities in Abia State. The population of the study comprised all the farmers (male and female) between the ages of 15 to 50 who are in their sexually active/reproductive age bracket. A sample size of one hundred and forty-four (144) respondents from a sample frame of 350 farmers was selected from the population and was used for the study which included seventy-two (72) males, seventy-two (72) female farmers. This was realized using a multi-stage random sampling technique, i.e Obingwa, Osisioma, Ugwunagbo LGAs (Aba Zone), Bende, Isiukwuato and Ohafia LGAs (Ohafia Zone), Ikwuano, Umuahia South, Umuahia North and Ikwuano LGAs (Umuahia zone). Two farm communities were selected from the selected LGAs, eight respondents were selected from each of the communities (four males, and four females) making a sample size of one hundred and forty-four (144) respondents. Primary data and secondary information used for this study were obtained using a structured questionnaire, newspapers, magazines, journals etc. which reflected the specific objectives of the study. Descriptive and inferential statistics were used to analyse objectives 1, 2 and 3. To ascertain the socio-economic characteristics of the respondents in the study area were analyzed using descriptive statistics such as

distribution tables, frequency, percentages, means etc. To identify various sources of information on family planning in the study area were analyzed using descriptive statistics such as distribution tables, frequency, percentages, means etc. To ascertain the awareness of family planning methods by the respondents in the study area was analyzed using tables, frequency distribution, and percentages. An index of awareness was created for each respondent. The respondents were classified as having high, moderate, or low levels of awareness based on the range of their overall mean score.

4.67-7.00 = High level of awareness

2.34-4.66 = Moderate level of awareness

0-2.33 = Low level of awareness

There is no significant relationship between the socioeconomic characteristics of the respondents and awareness of family planning was tested using the t-ratios produced by the t-multiple regression model fitted to the data.

### **Model Specification for Hypotheses Testing**

Hypothesis (1)

A multiple regression model was specified as follows:

The implicit form of the multiple regression models is given as;

$$Y = f(x_1, x_2, x_3, x_4 \dots x_8) + e$$

Where:

Y= Level of awareness of family planning methods (%)

X<sub>1</sub>= sex (male = 1, female =0)

X<sub>2</sub>= age (in years),

X<sub>3</sub>= marital status, (married = 1, if otherwise = 0)

X<sub>4</sub>= educational Level (years of schooling),

X<sub>5</sub>= occupation (farming = 1; others = 0)

X<sub>6</sub>= Monthly income (in Naira), representing the aggregate financial returns received from different sources by the respondents.

X<sub>7</sub> = Religion (Christianity=1, otherwise=0)

X<sub>8</sub> = Household size this was measured according to the number of persons living in the same house under the same headship.

b<sub>0</sub>= Intercept and

e= error term.

b<sub>1</sub> - b<sub>8</sub> = Coefficient of the variables

Four functional forms of Linear, semil-log, double log and exponential were tried and the lead equation was chosen based on the magnitude of the coefficient of multiple determination (R<sup>2</sup>), number of significant variables and conformity to a priori theoretical expectations.

## Results and Discussion

### *Distribution of respondents according to socio-economic characteristics*

Table 1, shows the distribution of the respondents by sex. This was designed such that an equal number of male and female farmers was used for the study i.e. 72 male and 72 female farmers were drawn proportionally from the three agricultural zones studied. This was done to know how much each of the farmers has the knowledge and use of any of the family planning methods thereby helping them in knowing the best method that will be suitable for them. The study revealed that 10% of the respondents were single, 76% were married, and 15%, were either divorced or widowed in the agricultural zones of Abia State. Aba Agricultural zone had the highest number of married respondents (83.3%), followed by Umuahia zone (72.9%) and Ohafia Zone (70.8%). The highest number of single respondents was recorded at Umuahia Zone 12.5%, as against Ohafia Zone 10% and Aba Zone 6%. The preponderance of married people among the respondents was understandably, attributable to the fact that they were culturally sanctioned to bear children and, by implication, were more involved in matters of childbirth. This is in agreement with Olaitan (2011). The result revealed that 33% of the respondents were within the age brackets of 36-45 years, 30% represented the age bracket 26-35 years, 20% represented the age brackets of 46-50 years and 17% at the age brackets of 15-25yrs. The study revealed that the majority of respondents were in the active age of 36-45 years, with an overall mean age of 40. This means that the majority of the farmers were in the active age of 36-45 years and are regarded as being very active in childbearing and are usually more productive than the older ones and their high number will lead to increased productivity. The result revealed that 29.9% of the respondents had FSLC, 30% had WASSCE/GCE, and 25% had first degree i.e. HND/B.Sc/B.Agric. This result is evidence that the preponderance of the respondents in the various zones were educated. This was so because of the age bracket under study. This result is in agreement with Obasi (2005) that it would be difficult to find any meaningful number of people within such age bracket without some form and degree of formal education in our different communities. The result revealed that 56% of the respondents were farmers. These were recorded in the three Agricultural zones of Abia state with Aba and Ohafia zone having the highest number of farmers (71%) and Umuahia zone (21%) with the highest number of public/civil servants under the study. This result implies that the higher percentages of the respondents were farmers and this is because they were the target audience for this study and they are mainly found in our rural areas and help in agricultural productivity. The result revealed the respondents in the three Agricultural zones 24% earned between N100,001-N150,000 per annum; 15% earned N150,001-N200,000, 8% earned between N300,001-N350,000 with the least number 3% earned between N250,001-N300,000. Umuahia and Aba zone recorded the highest number of earning 24% between N100,001-

N150,000. Income generally is low from agricultural production and of low capital input into production, low level of education, low price of farm produce and poor accessibility to credit facilities among others (Anyanwu, 2015). Farmers with higher education earned more. The result shows that 44.4% of the respondents were Protestants against 31.2% being Roman Catholic and 24.3% being Pentecostal. Ohafia Agricultural zone had the highest number of Protestants 16.7% as against Aba and Umuahia Agricultural zones. The result further revealed that household 44% of the respondents were between 1-5, and 54% were between 6-10 people. The table shows that the majority of the respondents 54% were from Aba zone having between 6 to 10 people living together, also Ohafia zone 46% had the highest between 1-5 people. The result shows that a greater percentage of the respondents were from homes with large household sizes typical of an African rural community where fecundity is encouraged, celebrated and rewarded (Ekong, 2010).

### *Distribution of Respondents According to Sources of Information on Family Planning Methods*

Results from Table 2 show the sources of information on family planning methods in the three agricultural zones of Abia State which include Aba, Ohafia and Umuahia agricultural zones. In the three agricultural zones, different communication media were used by the respondents to access information about family planning methods. In Aba zone, radio 24.2%, television 15.6%, and friends 12.5%. In Ohafia zone, radio 26.5%, television 14.4%, and friends 12.1%. In Umuahia zone, radio 31.1%, television 15.6%, and friends 12.5%. Others include Aba zone, Ohafia and Umuahia zones, sources of information include, government health workers and institutions (nurses and doctors etc) 10.9%, 10.6% and 7.81%, The results obtained from the study indicated that many of the respondents in the three zones have access to radio and television sets more. In Aba zone (24.2%), Ohafia zone (26.5%) and Umuahia zone (31.3%) listen to radio on family planning programmes, while in Aba zone (15.6%), Umuahia zone (14.4%) and (15.6%) watch television programmes, this means that a clear majority of them regularly listen to/watch radio or television programmes that dwell on family planning matters which are air programmes from radio and television being used as platform and are readily and easily received by people (farmers) in the agricultural zones of Abia State. This attaches credence to the view of Anyanwu (2015) that the broadcast of television and radio, the rise of an independent press, and increasing literacy rates in many countries offer new opportunities for family planners and other healthcare organizations to inform the public and reach opinion leaders. The indication of the above is that among other communication media, the radio could be a more potent source of mass information and mass education than even its sister medium, the television, in rural Nigeria (Osakuo, 2010, Nwachukwu, 2003). Government health workers and institutions, private health workers, as well as spouses in the three agricultural zones



contributed immensely to the spread of information on family planning methods in Abia State.

#### ***Awareness on Family Planning Methods***

Table 3a shows that 97% of the respondents in the study area were aware of one method of family planning or another, while 3% of the respondents were not aware of any method at all. The respondents with more awareness were due to the age racket under study. This trend of result is in agreement with (Ukpai 2014, Obasi, 2005) who opined that considering that the background of the age brackets of the respondents that constituted the aim of this study, they consisted of people who were relatively more active in age, more adventurous in their reproductive behaviour, more dynamic in desire, more favourably disposed to education and by implication, They were the category of people who were more likely to own radio and or television sets, read newspapers etc, and therefore pay more attention to media and other messages on reproductive health. The result from the Table 3b, revealed that in the modern methods of family planning awareness, condom with mean average ( $\bar{x}$  = 3.81) in Aba, ( $\bar{x}$  = 4.01) in Ohafia and ( $\bar{x}$  = 4.39) in Umuahia Agricultural zones ranked first, followed by oral contraceptive, ( $\bar{x}$  = 2.85) in Aba, ( $\bar{x}$  = 3.08) in Ohafia and ( $\bar{x}$  = 3.35) in Umuahia zones, injectable ( $\bar{x}$  = 2.69) in Aba, ( $\bar{x}$  = 2.75) in Umuahia zones and ( $\bar{x}$  = 2.46) in Ohafia zone; Birth control pills ( $\bar{x}$  = 2.88) in Umuahia zone, ( $\bar{x}$  = 2.38) in Aba. Female sterilization ( $\bar{x}$  = 2.98) in Umuahia zone, ( $\bar{x}$  = 2.70) in Ohafia zone and ( $\bar{x}$  = 2.35) in Aba zone. In Aba zone, intra-uterine device ( $\bar{x}$  = 1.61) recorded the lowest level of awareness followed by Intra-Uterine device (IUD) and vasectomy. This finding, in respect of awareness, is not much at variance with that of the National Population Commission (2006), which reported that knowledge and awareness of family planning methods was increasing, and that about 65% of all women and 82% of all men in Nigeria had heard of at least one method (modern) of contraceptives. This trend of result is in agreement with (Ukpai, 2014; Obasi, 2005), who opined that considering against the background of the age brackets of the respondents that constituted the aim of this study, they consisted of people who were relatively more active in age, and by this reason, more adventurous in their reproductive behaviour, more dynamic in desire, more favourably disposed to education and by implication, to new ideas, and more cosmopolitan in disposition. The result further revealed that in traditional method of family planning, abstinence with mean average of ( $\bar{X}$  = 3.56) in Aba, ( $\bar{x}$  = 3.79) in Ohafia and ( $\bar{x}$  = 3.96) in Umuahia recorded the highest among others followed by prolonged breast feeding ( $\bar{x}$  = 3.31) in Aba, ( $\bar{x}$  = 3.10) in Ohafia and ( $\bar{x}$  = 3.31) in Umuahia zones of Abia State. Withdrawal method recorded high ( $\bar{x}$  = 3.23) in Umuahia zone, ( $\bar{x}$  = 2.92) in Ohafia and ( $\bar{x}$  = 2.85) in Aba zone; indicating that Umuahia zones were more aware of the method. Herbs and root ( $\bar{x}$  = 3.08) in Aba, ( $\bar{x}$  = 2.94) in Umuahia zones. The result is in agreement with Nwaobila *et al.* (2021) that prolonged breast feeding, withdrawal and herbs and roots are the most commonly traditional methods used

in the prevention of pregnancy and child bearing, that women around the World, have used extended breast feeding to space their pregnancies since the beginning of history. Anyanwu *et al.* (2020) also pointed out that total breast feeding can postpone ovulation and menstruation.

#### ***Distribution of respondents according to their awareness index for family planning methods***

The respondent's awareness index, presented in Table 3c, indicated that in Aba agricultural zone, the modern method of family planning awareness was at the medium level with 58.33%, high 27.08% and low 14.58 and a mean index of 3.82; traditional method of family planning in the same zone recorded medium 83.33% as against high 12.50% and low 4.17% and a mean index of 4.03, which means that respondents from the zone were more aware of the traditional method of the family planning than the modern method. In Ohafia zone, respondents were moderately (medium) aware of the modern method of family planning with 70.83%, high 25.00% and low 4.17 and a mean index of 4.05; also, the traditional method of family planning recorded medium 83.33%, high 12.50 and low 4.17 and a mean index of 4.06 which indicates that the respondents in the zone were almost aware of both methods moderately during the time of this study. In Umuahia zone also, the level of awareness was medium 47.92%, high 47.92% and low 4.17% with a mean index of 4.46 which means that the respondents in the area were aware of the modern family planning methods in existence; traditional methods of family planning had medium 83.33%, high 12.50% and low 4.17% and a mean index of 4.13 which indicates that the respondents were more aware of the modern family planning methods. The above discussion on the awareness index is in agreement with Osakue (2010) that mass media has helped in the creation of awareness on health-related issues in the rural communities of Nigeria, and has helped in educating farmers to accept technologies for their well-being. The medium level of awareness from the discussion means that the respondents make use of mass media and other sources to gain knowledge and information on health-related issues and also on how to space their children for healthy living.

#### ***Determinants of Awareness of Family Planning Methods***

Table 4 shows the multiple analyses of the effects of socioeconomic characteristics on respondents' awareness of family planning methods such as sex, age, marital status, education, occupation, income, religion and household size. Based on the appropriateness of signs, number of significant variables, and magnitude of the coefficient of multiple determination ( $R^2$ ) (coefficient of determination), the exponential functional form was chosen as the lead equation for the awareness of family planning methods among the respondents in the study area. The exponential functional form had eight significant variables with  $R^2$  value of 0.479 which shows that 47.9% of the total variation observed in the dependent variable for

respondents in the study area is accounted for by the independent variables included in the model. The F-value of 15.492 indicated that the model is significant for respondents in the study area. Sex was significant and positively related to the awareness of family planning methods (-2.187) at 5%. This implies that both male and female respondents in the area were aware of one method of family planning or another and the couple should decide on any method to use and vice-versa but the female farmers were more aware of the family planning methods in the area. Education was significant and positively related to awareness of family planning methods (2.184) at 5%. This implies that the higher the level of formal education received by the respondents, the higher the level of awareness of a particular family planning method. This finding is in agreement with Anyanwu, (2015) and Nwachukwu (2003), that the more enlightened an individual is the more his/her knowledge of events around him/her increases, and that education widens information horizon and awareness of the individual. Occupation was significant but negatively related to the awareness of family planning methods (-2.412) at 5%. This result implies that one's occupation may not predict the awareness level of family planning methods. Income was significant but negatively related to the awareness of family planning methods (-1.928) at 10%. This implies that the income of the farmers does not predict the awareness of the family planning methods because most of the farmers may find it difficult to use their resources to procure one form of media for communication or the other (Nwaobiala *et al.*, 2023). Religion was significant and positively related to the awareness of the family planning method (3.156) at 1%. This result implies that the respondents' religion does not stop them from being aware of any method. This is in agreement with Obasi (2005) that farmers' religion does not prevent them from being aware of any family planning method. Household size was significant and positively related to the awareness of family planning methods (2.078) at 5%. This result implies that an increase in family size and the number of persons in a family can predict the awareness of family planning methods because they can source information from any place on the subject matter. This is in agreement with Olaitan (2011) that household size can help in information generation on family planning. Rural dwellers are characterized by the tendency to share ideas and information as against living in isolation. This same reason could facilitate the sharing of ideas that relate to family planning methods thereby increasing their awareness level.

### Conclusion

The study shows that the majority of the respondents (93.8%) had formal education which helped them search for information on family planning methods with 55.6% farming as their primary occupation. The majority were moderately aware of one method of family planning or another but the awareness does not reflect well on their utilization. Radio, television, friends, government health workers and institutions (nurses and doctors) were the respondent's main sources

of information on family planning methods. Sex, education, occupation, income, religion and household size influenced the awareness of family planning methods significantly at percentages ranging from one to ten. The results therefore, call for the need for the Government, and NGOs to provide more educational opportunities in rural areas to teach family planning methods since education will predispose them not only to delayed marriage, but also to the utilization of new and desirable values and practices, and discourage retrogressive socio-cultural practices. Individuals, governments and NGOs should help in the creation of more awareness on issues relating to family planning methods and as well direct them on how to use family planning methods. Government, NGOs and individuals should help in broadcasting the messages on family planning methods through the mass media to enable farmers to be more aware of any method.

### References

- Alemayehu, B. (2012). Assessment of Male Involvement in Family Planning use among Men in South East zone of Tigray, Ethiopia. <http://www.scholarly-journals.com/SJM>
- Anyanwu, E.V. (2015). Assessment of the awareness and Utilization of Family Planning Methods among Rural Farmers in Abia State, Nigeria. M.Sc. Thesis Submitted to Department of Agricultural Extension and Rural Development, Michael Okpara University of Agriculture, Umudike.
- Anyanwu, E.V., Nwachukwu, I. and Onuoha, J. (2020). Utilization of Family Planning Methods among Rural Farmers in Abia State, Nigeria. *Journal of Community and Communication Research*, 5(2): 97-103.
- Ekong, E. E. (2010). An Introduction to Rural Sociology. Uyo: Dove Publishers National Population Commission (2006). The 2006 Population Census of Nigeria: Analytical Report vol.2. Abuja: National Population Commission.
- NPC and ICF (2021). National Population Commission (NPC) and ICF International. Nigeria Demographic and Health Survey 2021. Abuja, Nigeria, and Rockville, Maryland, USA.
- Nwachukwu, I. (2003). Agricultural Communication: Principles and Practices. Lamb House Publishers, Umuahia.
- Nwachukwu, I. and Obasi, O.O (2008). Use of Modern Birth Control Methods among Rural Communities in Imo State, Nigeria. *African Journal of Reproductive Health*, 12(1):102-108.
- Nwaobiala, C.U., Ekweanya, N.M. and Anyanwu, E.V. (2021). Analysis of Knowledge, Attitude and Practice of Modern Family Planning Methods among Rural Women in Umuahia Agricultural Zone of Abia State, Nigeria. *African Journal of Agriculture and Allied Sciences (AJAAS)*, 1(1):183-196.
- Nwaobiala, C.U., Nzeakor, F.C., Anyanwu, E.V. and Victor, N.N. (2023). Constraints to the Practice of Modern Family Planning Methods among Rural Women in Umuahia Agricultural Zone of Abia

State, Nigeria. *Journal of Agriculture, Forestry and Fisheries*, 21 (1 and 2):22-25.

Nwokedike, U. A. (2012) Determinants of Family Planning Services Utilization in Kubwa Area Council of FCT, Abuja–Nigeria. A Thesis Submitted To the Postgraduate School Ahmadu Bello University, Zaria, Nigeria.

Obasi, O.O. (2005). Socio-Cultural Factors Influencing the Adoption of Modern Birth-Control Methods in Rural Communities of Imo State, Nigeria. A Dissertation Submitted to Post Graduate School, Michael Okpara University of Agriculture, Umudike.

Olaitan, O.L (2011). Factors Influencing the Choice of Family Planning among Couples in South-West Nigeria. *International Journal of medicine and Medical Sciences*, 3(2):227-229.

Osakue, S.O. (2010). Broadcast Media in Family Planning Matters in Rural Nigeria: *The Ebelle Scenario. J Communication*, 1(2): 77-80.

PMNCH (2019). The Partnership for Maternal Newborn and Child Health (The ABC's of family planning. Last accessed on 2023 May 12. Available from: [https://www.who.int/pmnch/media/news/2010/20100322\\_dshaw\\_oped/en/](https://www.who.int/pmnch/media/news/2010/20100322_dshaw_oped/en/)

Ukpai, A. K. (2014). Analysis of Youths in HIV/AIDS Counseling and Testing (HCT) Programme in Abia State, Nigeria. An M.Sc Thesis, Department of Rural Sociology and Extension, Michael Okpara University of Agriculture, Umudike, Nigeria.

UNFPA (2023). United Nations Population Fund Family planning. Last accessed on 2020 May 12]]. Available from: <https://www.unfpa.org/family-planning>.

WHO (2019). World Health Organization. Family Planning Contraception. Last accessed on 2024 May 12. Available from: <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>.

**Table 1: Distribution of respondents according to socio-economic characteristics**

Variables	Aba Zone(48)		Ohafia Zone(48)		UmuahiaZone (48)		Pooled (144)	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
<b>Sex</b>								
Male	24	50	24	50	24	50	72	50
Female	24	50	24	50	24	50	72	50
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>
<b>Marital Status</b>								
Single	3	6	5	10	6	13	14	10
Married	40	84	35	73	34	71	109	76
Divorced/Widower/Widow	5	11	8	17	8	17	21	15
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>
<b>Age</b>								
15-25	7	15	9	19	8	6	24	17
26-35	15	31	15	31	13	27	43	30
36-45	17	35	16	33	15	31	48	33
46-55	9	17	8	6	12	25	29	20
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>
<b>Mean</b>	<b>36</b>		<b>38</b>		<b>39</b>		<b>40</b>	
<b>Education</b>								
No Formal Educ.	2	4	4	8.3	3	6.3	9	6.3
FSLC	17	35	11	23	15	31	43	30
WASSCE/GCE	13	27	13	27	12	25	38	26
NCE/TCI/TCII	4	8	1	2	3	6	8	6
HND/B.Sc/B.Agric	10	21	15	31	13	27	38	26
M.Sc/M.A/MBA	2	4	4	8	2	4	8	5
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>
<b>Occupation</b>								
Farming	30	71	30	71	20	42	80	56
Public/Civil Servant	5	10	6	13	10	21	21	15
Petty trading	5	10	4	8	9	19	18	13
Tailoring	3	6	4	8	2	4	9	6
House Wife	2	4	1	2	1	2	4	3
Craftmanship	2	4	2	4	3	6	7	5
Religious Service	1	2	1	2	3	6	5	4
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>
<b>Income(Annual) ₦</b>								
10,000-50,000	9	18	8	5	5	10	22	15
50,001-100,000	10	21	8	6	6	13	24	17
100,001-150,000	11	23	12	25	11	23	34	24
150,001-200,000	6	13	6	13	9	19	21	15
200,001-250,000	5	10	6	13	8	6	19	13
250,001-300,000	-	-	2	4	2	4	4	2.8
300,001-350,000	3	6	3	6	5	10	11	8
350,001-400,000	4	8	3	6	2	4	9	6
<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>144</b>	<b>100</b>

<b>Household Size</b>								
1-5	20	42	22	46	21	44	63	44
6-10	26	55	25	52	27	52	78	52
11-15	2	4	1	2	-	-	3	2
Total	48	100	48	100	48	100	144	100
<b>Mean</b>	<b>7.4</b>		<b>7.7</b>		<b>6.5</b>		<b>7.6</b>	

Source: Field survey data, 2023

**Table 2: Distribution of respondents according to sources of information about family planning methods in Agricultural zones of Abia State**

Variables	Aba Zone		Ohafia Zone		Umuahia Zone	
	Freq.	%	Freq.	%	Freq.	%
Radio	31	24.2	35	26.5	40	31.3
Television	20	15.6	19	14.4	20	15.6
Friends	16	12.5	16	12.1	16	12.5
Govt. Health workers and Institution(Nurses, Doctors etc)	14	10.9	14	10.6	10	7.8
Spouse	10	7.8	6	4.6	10	7.8
Private health workers	12	9.4	11	8.3	8	6.3
Magazines/Newspapers/books	9	7.0	6	4.6	7	5.5
Posters/Handbills	6	4.7	10		6	
Family planning centres	3		5		5	
Church	4	3.1	3	2.3	3	2.3
School	3	2.3	7	5.3	3	2.3
Mosque	0	0	0	0	0	0

Source: Field Survey, 2023

Multiple Responses Recorded

**Table 3a: Respondents' Awareness on Family Planning Methods**

Variables	Aba Zone (48)		Ohafia Zone (48)		Umuahia Zone (48)		Total N(144)	
	Freq	%	Freq	%	Freq	%	Freq	%
Awareness	48	100	45	94	47	98	140	97
Not aware	0	0	3	6	1	2	4	3
Total	48	100	48	100	48	100	144	100

Source: Field Survey, 2023

**Table 3b: Distribution of respondents according to respondents' level of awareness of family planning methods**

MODERN METHODS	ABA ZONE						OHAFIA ZONE						UMUAHIA ZONE					
	Very often	Often	Undecided	Occasionally	Never	Mean	Very often	Often	Undecided	Occasionally	Never	Mean	Very often	Often	Undecided	Occasionally	Never	Mean
<b>1</b> Injectable	4 8.3%	12 25.0%	5 10.4%	19 39.6%	8 16.7%	2.6	3 6.2%	11 22.9%	5 10.4%	15 31.2%	14 29.2%	2.4	6 12.5%	12 25.0%	5 10.4%	14 29.2%	11 22.9%	2.7
<b>2</b> Norplant Implant	00	10 20.8%	00	18 37.5%	20 41.7%	2.0	00	10 20.8%	2 4.2%	17 35.4%	19 39.6%	2.0	00	11 22.9%	2 4.2%	18 37.5%	17 35.4%	2.1
<b>3</b> Intra-Uterine Device (IUD)	00	3 6.2%	4 8.5%	12 25.0%	29 60.4%	1.6	00	3 3.6%	6 12.5%	14 29.2%	25 52.1%	1.7	00	2 4.2%	8 16.7%	19 39.6%	19 39.6%	1.8
<b>4</b> Vasectomy	1 2.1%	2 4.2%	1 2.1%	8 16.7%	36 75.0%	1.4	1 2.1%	4 8.3%	1 2.1%	9 18.8%	33 68.8%	1.5	1 2.1%	10 20.8%	1 2.1%	18 37.5%	27 56.2%	1.9
<b>5</b> Condoms	20 41.7%	17 35.4%	00	4 8.3%	7 14.6%	3.8	24 50.0%	16 33.3%	00	4 8.3%	4 8.3%	4.0	32 66.7%	11 22.9%	00	2 4.2%	3 6.2%	4.3
<b>6</b> Birth control pills	3 6.2%	14 29.2%	00	12 25.0%	19 39.6%	2.3	4 8.3%	16 33.3%	00	15 31.2%	13 27.1%	2.6	5 10.4%	19 39.6%	00	13 27.1%	11 22.9%	2.8
<b>7</b> Female Sterilization	1 2.1%	17 35.4%	00	10 20.8%	20 41.7%	2.3	2 4.2%	20 41.7%	1 2.1%	12 25.0%	13 27.1%	2.7	5 10.4%	22 45.8%	00	9 18.8%	12 25.0%	2.9
<b>8</b> Oral Contraceptive	4 8.3%	20 41.7%	2 4.2%	9 18.8%	13 27.1%	2.8	4 8.3%	24 50.0%	2 4.2%	8 16.7%	10 20.8%	3.0	7 14.6%	25 52.1%	1 2.1%	8 16.7%	7 14.6%	3.3
<b>TRADITIONAL METHODS</b>																		
<b>9</b> Withdrawal	2 4.2%	16 33.3%	11 22.9%	11 22.9%	8 16.7%	2.8	3 6.2%	15 31.2%	12 25.0%	11 22.9%	7 14.6%	2.9	5 10.4%	20 41.7%	9 18.8%	9 18.8%	5 10.4%	3.2
<b>10</b> Prolonged breast feeding	7 14.6%	21 43.8%	5 10.4%	10 20.8%	5 10.4%	3.3	4 8.3%	19 39.6%	7 14.6%	14 29.2%	4 8.3%	3.1	4 8.3%	22 45.8%	10 20.8%	9 18.8%	3 6.2%	3.3
<b>11</b> Rhythm	00	24 50.0%	5 10.4%	12 25.0%	7 14.6%	2.9	00	22 45.8%	6 12.5%	13 27.1%	7 14.6%	2.8	00	23 47.9%	4 8.3%	15 31.2%	6 12.5%	2.9
<b>12</b> Herbs and Root	6 12.5%	19 39.6%	1 2.1%	17 35.4%	5 10.4%	3.0	6 12.5%	19 39.6%	2 4.2%	15 31.2%	6 12.5%	3.0	3 6.2%	19 39.6%	4 8.3%	16 33.3%	6 12.5%	2.9
<b>13</b> Abstinence	15 31.2%	19 39.6%	00	6 12.5%	8 16.7%	3.5	20 41.7%	16 33.3%	00	6 12.5%	6 12.5%	3.7	24 50.0%	14 29.2%	00	4 8.3%	6 12.5%	3.9
						6						9						6



<b>14</b>	Taking of Schnapps (Kaikai) drink	3	6.2%	12	25.0%	4	8.3%	14	29.2%	15	31.2%	2	4.2%	2.4	6	2.4	2	4.2%	14	29.2%	5	10.5%	12	25.0%	15	31.2%	0	2.1%	2.5	1	2.1%	14	29.2%	4	8.3%	13	27.1%	16	33.3%	2.3	9
<b>15</b>	Bracelet	1	2.1%	5	10.4%	6	12.5%	12	25.0%	14	29.2%	6	12.5%	1.9	0	0	0	0	0	6	12.5%	9	18.8%	13	27.1%	20	41.7%	2	2.0	00	5	7	14	14.6	7	14	22	45.8%	1.0	2	

Source: Field Survey, 2023. Mean Decision Rule: 3.00

**Table 3c: Distribution of respondent according to their awareness index for family planning methods**

Index range	MODERN METHODS				TRADITIONAL METHODS			
	Category	Freq.	%	Index range	Category	Freq.	%	
0-2.33	Low	7	14.58	0-2.33	Low	2	4.17	
2.34-4.66	Medium	28	58.33	2.34-4.66	Medium	40	83.33	
4.67-7.00	High	13	27.08	4.67-7.00	High	6	12.50	
<b>Mean Index</b>	<b>3.82</b>	<b>48</b>	<b>100.0</b>	<b>Mean Index</b>	<b>4.03</b>	<b>48</b>	<b>100.0</b>	
<b>OHAFIA ZONE</b>								
0-2.33	Low	2	4.17	0-2.33	Low	2	4.17	
2.34-4.66	Medium	34	70.83	2.34-4.66	Medium	40	83.33	
4.67-7.00	High	12	25.00	4.67-7.00	High	6	12.50	
<b>Mean Index</b>	<b>4.05</b>	<b>48</b>	<b>100</b>	<b>Mean Index</b>	<b>4.06</b>	<b>48</b>	<b>100.0</b>	
<b>UMUAHIA ZONE</b>								
0-2.33	Low	2	4.17	0-2.33	Low	2	4.17	
2.34-4.66	Medium	23	47.92	2.34-4.66	Medium	40	83.33	
4.67-7.00	High	23	47.92	4.67-7.00	High	6	12.50	
<b>Mean Index</b>	<b>4.46</b>	<b>48</b>	<b>100.0</b>	<b>Mean Index</b>	<b>4.13</b>	<b>48</b>	<b>100.0</b>	

Source: Field Survey, 2014

**Table 4: Analysis of estimated determinants of respondents' awareness of family planning methods**

Explanatory variables	Functional Forms		
	Linear	Exponential +	Semi-log
Constant	-0.504 (-2.367)**	-0.657 (-2.872)**	-0.772 (-3.094)***
Sex	0.106 (1.133)	-0.224 (-2.187)**	0.213 (1.980)**
Age	0.163 (3.944)***	0.132 (1.190)	0.027 (0.568)
Marital status	-0.013 (-0.267)	-0.208 (-1.445)	0.108 (1.926)*
Education	0.071 (2.246)**	0.210 (2.184)**	0.060 (1.818)*
Occupation	-0.062 (-2.125)**	-0.175 (-2.412)**	-0.049 (-1.553)
Income	-0.047	-0.165	-0.041
			<b>Double-log</b>
			-0.657 (-2.872)***
			0.224 (2.187)**
			0.132 (1.190)
			0.336 (1.09)
			0.782 (0.752)
			0.038 (0.242)
			0.163

Religion	(-1.416)	(-1.928)*	(-1.219)	(0.869)
	0.136	0.300	0.177	0.038
Household size	(2.524)**	(3.156)***	(3.192)***	(0.192)
	0.354	0.273	0.143	0.611
F-ratios	(4.338)***	(2.078)**	(1.604)	(1.210)
R <sup>2</sup>	10.657***	15.492***	4.115***	5.440
R <sup>2</sup>	0.387	0.479	0.232	0.285
R <sup>2</sup>	0.351	0.448	0.176	0.233

**Source: Field survey, 2023.**

\*\*\* Significant at 1%

\*\* Significant at 5%

\*Significant at 10%

+ Lead Equation