

## Factors Affecting Use of Modern Family Planning Among South-Eastern Nigerian Women: A Secondary Analysis of 2013 NDHS

Azuike EC<sup>1-3\*</sup>, Nwankwo BE<sup>3,4</sup>, Joe-Ikechebelu NN<sup>1,3</sup>, Anemeje OA<sup>5</sup>, Okafor KC<sup>6</sup>, Aniemena RC<sup>7</sup>, Enwonwu KC<sup>7</sup>, Chira UO<sup>8</sup>

<sup>1</sup>Department of Community Medicine, Chukwuemeka Odumegwu Ojukwu University/University Teaching Hospital, Awka, Anambra State, Nigeria

<sup>2</sup>Foundation for Health and Development in Nigeria

<sup>3</sup>Health Promotion and Practice Research Unit (HPPRU), Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, Anambra State, Nigeria

<sup>4</sup>Department of ENT, Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, Anambra State, Nigeria

<sup>5</sup>Department of Family Medicine, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State

<sup>6</sup>Department of Public Health, Federal Medical Centre, Keffi, Nasarrawa State, Nigeria

<sup>7</sup>Department of Community Medicine, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria

<sup>8</sup>Department of Family Medicine, University of Abuja Teaching Hospital, Gwagwalada, Federal Capital Territory, Abuja, Nigeria

### \*Corresponding author

*Azuike EC*

### Article History

*Received: 11.06.2018*

*Accepted: 25.06.2018*

*Published: 30.06.2018*

### DOI:

10.36348/sjm.2018.v03i06.009



**Abstract:** Family planning is widely acknowledged as an important intervention towards achieving Sustainable Development Goals (SDGs) three (4) and five (5) as it has proven to reduce maternal and child mortality. Family planning can prevent unwanted pregnancies and unsafe abortions. The aim of this study was to determine various factors that influence the uptake of modern family planning among women of reproductive age in South-eastern Nigeria. The study used data obtained from Nigeria Demographic and Health Survey (NDHS) 2013. Factors considered were drawn from the dataset. Analysis was carried out using Stata version 12.1. Multivariate logistic regression analysis was used to determine relationship between various factors and use of modern family planning methods. Level of significance was set at 0.05. The total number of participants in the study was 2,816. Twelve point fifty seven percent (12.57%) of the participants were currently using modern family planning methods. The highest proportion of use was 25.57% in Ebonyi State, while the lowest was 16.94% in Imo State. The only identified predictor of use of modern family planning use was educational status. The women who had at least secondary education were almost twice (1.82 times) more likely to use modern family planning methods than those who had only primary education or less (OR=1.82, 95% CI: 1.4-2.4, P<0.001). Measures should be taken to increase female literacy, as this will most likely lead to improved uptake of modern family planning among the respondents.

**Keywords:** Modern family planning, South-eastern Nigerian women.

## INTRODUCTION

Family planning is widely acknowledged as an important intervention towards achieving Sustainable Development Goals (SDGs) three (4) and five (5) as it has proven to reduce maternal and child mortality. Family planning can prevent unwanted pregnancies and unsafe abortions. Some family planning methods such as condom usage can protect individuals from Sexually Transmitted Infections (STIs) including HIV/AIDS [1,2]. Family planning has also been found to promote gender equality as well as promote educational and economic empowerment for women [2]. Despite the enormous benefits of family planning services, the uptake of the service still remains low in Sub-Saharan Africa [3]. This has resulted to high rates of unwanted

pregnancies, unplanned deliveries, unsafe abortions and maternal mortalities in Sub-Saharan Africa [4].

According to the World Health Organisation (WHO)[5], promotion of family planning and ensuring access to preferred contraceptive methods for women and couples is essential to securing the well-being and autonomy of women, while supporting the health and development of communities.

WHO states that benefits of family planning include[5]: I. Preventing pregnancy-related health risks in women: A woman's ability to choose if and when to become pregnant has a direct impact on her health and well-being. Family planning allows spacing of pregnancies and can delay pregnancies in young women

at increased risk of health problems and death from early childbearing. It prevents unintended pregnancies, including those of older women who face increased risks related to pregnancy. Family planning enables women who wish to limit the size of their families to do so. Evidence suggests that women who have more than 4 children are at increased risk of maternal mortality. By reducing rates of unintended pregnancies, family planning also reduces the need for unsafe abortion; II. Reducing infant mortality: Family planning can prevent closely spaced and ill-timed pregnancies and births, which contribute to some of the world's highest infant mortality rates. Infants of mothers who die as a result of giving birth also have a greater risk of death and poor health; III. Helping to prevent HIV/AIDS:

Family planning reduces the risk of unintended pregnancies among women living with HIV, resulting in fewer infected babies and orphans. In addition, male and female condoms provide dual protection against unintended pregnancies and against STIs including HIV; IV. Empowering people and enhancing education: Family planning enables people to make informed choices about their sexual and reproductive health. Family planning represents an opportunity for women to pursue additional education and participate in public life, including paid employment in non-family organizations. Additionally, having smaller families allows parents to invest more in each child. Children with fewer siblings tend to stay in school longer than those with many siblings; V. reducing adolescent pregnancies: Pregnant adolescents are more likely to have preterm or low birth-weight babies. Babies born to adolescents have higher rates of neonatal mortality. Many adolescent girls who become pregnant have to leave school. This has long-term implications for them as individuals, their families and communities; V. slowing population growth: Family planning is key to slowing unsustainable population growth and the resulting negative impacts on the economy, environment, and national and regional development efforts.

It is important that family planning is widely available and easily accessible through midwives and other trained health workers to anyone who is sexually active. Midwives are trained to provide (where authorised) locally available and culturally acceptable contraceptive methods. Other trained health workers, for example community health workers, also provide counselling and some family planning methods, for example pills and condoms. For methods such as sterilization, women and men need to be referred to a clinician.

The 2013 Nigeria Demographic and Health Survey reported that 85 percent of women and 95 percent of men knew about a contraceptive method [6]. Overall, 15 percent of currently married women in Nigeria were using a contraceptive method, an increase

of only 2 percentage points since the 2003 NDHS [6]. The overall contraceptive prevalence among women in Nigeria was 16 percent [6]. The South West zone had the highest proportion of women currently using a family planning method (38 %), followed by the South East (29%). The lowest proportion of married women using a family planning method was in the North East (3 percent). Among the states, Lagos and Kwara had the highest percentages of women using any method (48 percent and 40 percent, respectively).

Although the South East had the second highest proportion of women using contraceptives, it is good to disaggregate the data and look at the different states and some determinants of use of modern family planning methods. This study aimed at narrowing into the South Eastern region of Nigeria using data generated by the 2013 Nigeria Demographic and Health Study (NDHS) and explores some possible determinants of use of modern family planning methods.

## **METHODOLOGY**

The Demographic and Health Surveys (DHSs) are nationally-representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition for low and middle income countries [7]. This study used Nigeria Demographic and Health Survey 2013 dataset. Ethical approval was obtained from the ethical committee of Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka. Only females of reproductive age (15 to 49 years) from the South-eastern geo-political zone of the country were included in the study. The women were two thousand eight hundred and sixteen (2,816) in number. Data was analysed using Stata data analysis software Version 12.1.

Some basic characteristics of the women were explored including: the state they belong to, the age of the women, the highest educational level they attained, their place of residence (urban/rural), current method of family planning, current marital status. Frequencies and percentages were displayed in tables. Binomial logistic regression was used to establish the correlates of use of modern family planning among the women. The dependent variable was the current family planning method of the women. This variable was originally grouped into four possible outcomes: No family planning method, traditional method, folkloric method and modern method. But for the purpose of this study, this variable was re-coded into only two possible outcomes: Modern family planning method and others. The independent variables were: educational level, age of the women, place of residence (urban/rural) and marital status of the women. Some of the independent variables which had more than two categories were re-coded into only two categories. The educational level was re-coded into two categories: minimum of

secondary school and primary school or less. Age was re-coded into two categories: 25 years or more and 24 years or less. Marital status was re-coded into two categories: currently married and others. The p-value

was set at 0.05 meaning that any p-value that is less than 0.05 was considered statistically significant.

## RESULTS

**Table-1: Distribution of the respondents according to States in the Southeast geo-political zone of Nigeria**

State of residence	Frequency	Percentage
Anambra	537	19.07
Enugu	574	20.38
Ebonyi	720	25.57
Abia	508	18.04
Imo	477	16.94
Total	2,816	100.0

Table 1 shows the distribution of the respondents according to their states. The most common

state was Ebonyi state (25.57%). Imo state was the least represented (16.94%).

**Table-2: Age distribution of the respondents (years)**

Age group (years)	Frequency	Percentage
15-19	59	2.10
20-24	381	13.53
25-29	804	28.55
30-34	762	27.06
35-39	493	17.51
40-44	242	8.59
45-49	75	2.66
Total	2,816	100.00

Table 2 shows the age distribution of the respondents. The most common age group was the 25 to 29 years age group which made up 28.55% of all the

respondents. The least represented age group was the 15-19 years age group (2.10%).

**Table-3: Highest Educational level of the respondents**

Highest Educational level	Frequency	Percentage
No formal education	150	5.33
Primary	792	28.13
Secondary	1,563	55.50
Higher	311	11.04
Total	2,816	100.00

Table 3 shows the respondents' highest level of education. Only 11.04% of the respondents had tertiary education. Respondents without formal education made up 5.33% of the respondents. Among the respondents 28.13% had only primary education while 55.50% had secondary education.

Table 4 shows the respondents' place of residence. Majority of the respondents are urban dwellers (65.31%).

**Table-4: Respondents' place of residence**

Place of residence	Frequency	Percentage
Urban	1,839	65.31
Rural	977	34.69
Total	2,816	100.00

**Table-5: Current method of family planning used by the respondents**

Method of family planning	Frequency	Percentage
No method	1,927	68.43
Folkloric method	18	0.64
Traditional method	517	18.36
Modern method	354	12.57
Total	2,816	100.00

Table 5 shows the family planning method used by the respondents. Approximately sixty eight percent (68%) of the respondents do not use any family planning method. Only 12.57% use modern family planning methods.

Table 6 shows the current marital status of the respondents. Majority of the respondents (85.37%) were married. Only 0.46% was divorced.

**Table-6: Respondents' current marital status**

Current marital status	Frequency	Percentage
Never in union	115	4.08
Married	2,404	85.37
Living with a partner	132	4.69
Widowed	114	4.05
Divorced	13	0.46
No longer living together/separated	38	1.35
Total	2,816	100.00

**Table-7: Respondents' use of modern family planning method by state of residence**

State	Family planning method		
	Frequency (%)		
	Modern method	Others	Total
Anambra	61 (11.36)	476 (86.64)	537 (100.00)
Enugu	97 (16.90)	477 (83.10)	574 (100.00)
Ebonyi	44 (6.11)	676 (93.89)	720 (100.00)
Abia	101 (19.88)	407 (80.12)	508 (100.00)
Imo	51 (10.69)	426 (89.31)	477 (100.00)
Total	354 (12.57)	2,462 (87.43)	2,816 (100.00)

Table 7 shows a cross tabulation of the use of family planning versus the state of the respondents. Abia State has the highest proportion of respondents

using modern family planning methods (16.90%). On the other hand, only 6.11% of the respondents in Ebonyi state use modern family planning methods.

**Table-8: Odds Ratio for Correlates of use of Modern Family planning Methods among the respondents**

Variable	Use of modern method of family planning		
	Odds ratio	95% confidence interval	p-value
Education			
≥ Secondary school	1.815	1.392954 - 2.363712	<0.001
≤ Primary school	1.000		
Age (years)			
≥ 25	0.943	0.6957923 - 1.27721	0.703
≤ 24	1.000		
Residence			
Urban	0.829	0.6576009 - 1.043949	0.111
Rural	1.000		
Marital Status			
Married	0.872	0.6384798 - 1.192119	0.399
Others	1.000		

Table 8 shows the odds ratio for correlates of use of modern family planning methods among the

respondents. The only correlate that was significant was their educational level. The respondents who had

secondary education or more were 1.8 times more likely to use modern family planning methods than those who had primary education or less, and this was statistically significant ( $p < 0.001$ ).

## DISCUSSION

Looking at the distribution of the respondents according to their states, the most common state was Ebonyi state (25.57%). Imo state was the least represented (16.94%). The most common age group was the 25-29 years age group which made up 28.55% of all the respondents, while the least represented age group was the 15-19 years age group (2.10%). The commonest age group in this study corresponds with the commonest age group among women of reproductive age in all the 6 geo-political zones in the country [8]. On the contrary, the least common age group nationally is the 45-49 years age group unlike 15-19 years in the index study [8]. Similarly, a study in Egypt reported that the commonest age group was the 25-29 years age group [9]. Only 5.33% of the women had no formal education, indicating that majority of the women who participated in this study was educated. This is a clear departure from the results of a nationally representative study which reported that almost half (46.89%) of Nigerian women studied had no formal education [8]. This finding underscores the importance of disaggregation of data. This study demonstrates that the women in the south-eastern part of Nigeria have a far higher level of literacy compared with the national average [8].

Among the women in this study 12.57% were using modern family planning methods. This is higher than the national average of 9.68% as reported in a nationally representative study [8]. Among Northern Nigerian women, only 5.33% use modern family planning methods. The great difference between the South-eastern women and the Northern women may be because of their differences in education. While 94.67% of the South-eastern women had formal education, only 34.1% of the Northern Nigerian women had formal education [10]. A study among Nigerian women had shown that those who had secondary education or more were 2.9 times more likely than those who had primary education or less to use modern family planning methods [8].

In the present study the women who had minimum of secondary education were almost 2 times (1.8 times) more likely than those with only primary education to use modern family planning methods. This agrees with many studies which have demonstrated that education increases the likelihood of using modern family planning methods. A study in the Northwest and Northeast Nigeria reported a statistically significant association between education and use of modern family planning methods [11]. In Bangladesh it was also reported that education increases the use of modern family planning methods [12]. Similarly in Nepal, the

practice of modern family planning methods was higher among the educated [13]. In Namibia the educated women studied were 3 times more likely to use modern family planning methods than those who had no formal education [14]. Ainsworth M et al demonstrated that schooling has a positive relationship with use of modern family planning in 14 Sub-Saharan countries using even after controlling for many other variables [15]. An educated woman is more likely to be aware of the availability of contraceptives. She is also more likely to understand how contraceptives work, believe in their efficacy, hence more likely to use modern contraceptives.

It is important to note that the other three (3) predictor variables (age, residence and marital status) that were tested using binomial logistic regression to determine their effect or otherwise on the use of modern family planning by the women had no statistically significant effect.

In conclusion, we have demonstrated that education is a major factor that affects the use of modern family planning methods among women of reproductive age in the South-eastern geo-political zone of Nigeria. We therefore recommend that female education should be emphasized as an intervention to increase the uptake modern family planning among the women of the South-eastern geo-political zone of Nigeria.

## ACKNOWLEDGEMENT

The authors wish to express gratitude to Measure DHS program for releasing the dataset at no cost to the authors.

## REFERENCES

1. Cates, W., Karim, Q. A., El-Sadr, W., Haffner, D. W., Kalema-Zikusoka, G., Rogo, K., ... & Averill, E. M. D. (2010). Family planning and the millennium development goals. *Science*, 329(5999), 1603-1603.
2. Sachs, J. D., & McArthur, J. W. (2005). The millennium project: a plan for meeting the millennium development goals. *The Lancet*, 365(9456), 347-353.
3. Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reproductive health*, 10(1), 34.
4. Crossette, B. (2005). Reproductive health and the millennium development goals: the missing link. *Studies in Family Planning*, 36(1), 71-79.
5. World Health Organisation (WHO). Family planning/contraception. Available from: <http://www.who.int/news-room/factsheets/detail/family-planning-contraception> (Accessed on 28th May 2018).

6. National Population Commission (NPC)[Nigeria] and ICF International. 2014. (2013). Nigeria Demographic and Health Survey 2014.
7. Measure Evaluation. Demographic and Health Surveys. Available online: <https://www.measuredhs.com>. Accessed 11<sup>th</sup> May 2018.
8. Azuike, E. C., Ikeako, L. C., Azuike, E. D., Joe-Ikechebelu, N. N., Nwachukwu, C. C., Umeh, U. M., ... & Aniemena, R. C. (2017). Correlates of use of modern family planning methods among women in Nigeria: A secondary analysis of NDHS 2013.
9. Awadalla, H. I. (2012). Contraception use among Egyptian women: results from Egypt demographic and health survey in 2005. *Journal of reproduction & infertility*, 13(3), 167.
10. Ikeako, L., Joe-Ikechebelu, N., Nwankwo, B., Onyemachi, P., Chikezie, J., Abali, I., ... & Azuike, E. (2018). Determinants of Use of Modern Family Planning among Northern Nigerian Women: A Secondary Analysis of 2013 NDHS. *Open Access Library Journal*, 5(05), 1.
11. Unumeri, G., Ishaku, S., Ahonsi, B., & Oginni, A. (2015). Contraceptive use and its socio-economic determinants among women in North-East and North-West Regions of Nigeria: a comparative analysis. *African Population Studies*, 29(2).
12. Mostafa Kamal, S. M., & Aynul Islam, M. (2010). Contraceptive use: socioeconomic correlates and method choices in rural Bangladesh. *Asia Pacific Journal of Public Health*, 22(4), 436-450.
13. Tuladhar, H., & Marahatta, R. (2008). Awareness and practice of family planning methods in women attending gyne OPD at Nepal Medical College Teaching Hospital.
14. Indongo, N. (2013). Contraceptive choice and use of methods among young women in Namibia. *African Population Studies*, 23(1).
15. Ainsworth, M., Beegle, K., & Nyamete, A. (1996). The impact of women's schooling on fertility and contraceptive use: A study of fourteen sub-Saharan African countries. *The World Bank Economic Review*, 10(1), 85-122.