

Dr. Latifat Ibisomi

African Population and Health Research Center

P. O. Box 10787-00100

Nairobi, Kenya

Improving contraceptive use in northern Nigeria: Could male involvement make a difference?

Abstract

Using the 2003 Nigeria Demographic and Health Survey male data, we investigated men's attitude to and experiences with contraceptive use in northern Nigeria. Results indicated that Nigerian men have high knowledge of modern methods of family planning. However, knowledge of how to use condom correctly as well as approval, discussion and use of family planning were low. The method mix showed that condom tops the list of methods used while majority of the men have negative opinion of female sterilization. Education and household wealth were positively associated with the outcome variables. Muslim men and men in the Core North region were less likely to have knowledge, approve, discuss or use modern methods of contraception. The interactions of region with education, wealth and religion show varied effects on approval, discussion and use of family planning between the North Central and the Core North. The implications of the findings are discussed.

Introduction

Despite awareness of high fertility rate and its associated consequences on development, the utilization of family planning services has remained at very low levels in sub-Saharan Africa (Campbell et al., 2007; APPGPDRH, 2007). The importance of family planning to the health of mother and child is aptly captured by the fact that it is one of the indicators for the universal access to reproductive health of the millennium development goal number 5. Although, policies and programs have evolved over time to increase the level of contraceptive use in the region, programs, research and available contraceptive methods have (unfortunately) been largely women based.

There is now a growing recognition among the international community that addressing gender inequity in health and other areas; promoting sexual and reproductive health and rights; and preventing HIV/AIDS and gender-based violence at all levels in the society are not possible without efforts to directly engage men and boys as partners in these processes (Roth and Mbizvo, 2001). Until recently, family planning programs in Africa had mainly focused on women's attitudes and behaviors presumably because they bear the physical and emotional strains of pregnancy and child birth (Adewuyi & Ogunjuyigbe, 2003; Isiugo-Abanihe, 2003; Finer et al, 2003; Donovan, 1995). Along the same lines of thought, most family planning programs offer and promote contraceptive methods, such as pills and injections to be used by women. However, their effectiveness and continuous use often remain unsuccessful owing to lack of approval from the women's partners/husbands (Clements and Madise, 2004; Isiugo-Abanihe, 1994; 2003; 1994; Casterline and Sinding, 2000; Lasee and Becker, 1997; Terefe and Larson, 1993; Caldwell and Caldwell, 1990).

Reports from countries in the region have indicated that the neglect of men and boys in reproductive health is a costly omission. For instance, despite age asymmetry among sexual partners in the region (Luke, 2003), the Kenyan Ministry of Health reports that school boys are responsible for most school girls' pregnancies in that country (Bledsoe and Cohen, 1993). Further, recent studies from a spectrum of developing countries including South Africa, Nigeria, and Cameroon suggest the vulnerability of adolescent men to some of the problems faced by young women such as sexual coercion, unwanted sexual touch, penetrative sex and being "rented" as prostitutes by older men and women (Deepika et al. 2004; Jejeebhoy, S.J. and S. Bott. 2003; Ajuwon et al, 2004).

Consequent upon such neglects, family planning methods that require male involvement such as condoms, periodic abstinence, withdrawal and vasectomy are used less often (Caldwell and Caldwell, 1990; Ezeh et al, 1996). The low use of such methods is a result of men's often dominant roles in decisions regarding reproductive health, as women in many cultures seek the approval of their husbands/partners to use contraception, and even educated and motivated women may not use contraception due to opposition from husbands/partners (DeRose, 2003; Bankole and Singh, 1998). Men in many developing countries also tend to desire larger families than their wives and are proud of the number of their children because of the current and future benefits, particularly the anticipated social and old age support (Ibisomi, 2007; Berhanu et al, 1999). The number of children that people desire is significantly linked to contraceptive use and fertility outcomes, particularly in traditional societies such as northern Nigeria. Evidence from demographic research supports the proposition that women's autonomy is associated with reduced fertility (Balk 1994;

Dharmalingam & Morgan 1996; Malhotra and Tsui, 1996; Morgan & Niraula 1995), and that husband opposition (real or perceived) prevents wives who want to stop or delay childbearing from using contraception (Casterline et al. 1997; Dodoo 1993; Ezeh 1993; Speizer et al, 2000). A man's supportive attitude therefore, often contributes to better use of both female and male methods of contraception.

Overall, the little attention paid to understanding men's roles in the effective and consistent utilization of contraceptives minimizes the motivation of men who are highly influential in the decision-making process not only within the family, but also at community and government levels. The approach also fails to incorporate the increased recognition of the need to involve men in sexual and reproductive health initiatives, as well as to understand their needs, perceptions and motivations in reproductive health matters (Isiugo-Abanihe, 2003).

This study is focused on northern Nigeria, a traditional society with strong patriarchal systems which confers on men decision-making roles in matters affecting the family and the society at large. The wives on the average are dependent on their husbands socially and economically and this has further entrenched men's power in issues surrounding fertility practices in households. That the men have influenced the contraceptive space within which the women operate can be safely assumed. Yet, very little is known regarding men's role in, and experiences with family planning and contraceptive use in the area and how these have in turn affected the contraceptive behavior of the women.

To bridge this gap in knowledge, this study seeks to examine the knowledge, attitude and practice of family planning as well as factors associated with them among men in northern Nigeria. This is very important as it could provide important entry points for efforts to holistically address the issue of high fertility regimes and very low use of modern contraception in the area. It can also inform broad public policy on family planning delivery and provide evidence for comparative understanding of the key role of men, women, and socio-cultural norms in other settings with similar social, economic, and cultural contexts.

Methodology

To achieve the study objectives, we use the 2003 Nigeria Demographic and Health Survey (NDHS) individual male dataset, which consists of 2,346 respondents, aged 15-59 (NPC/ORC Macro, 2004). The 2003 NDHS is a nationally representative cross-sectional survey designed to provide information on contraceptive and fertility behavior, among numerous other issues. We use descriptive methods to present and compare family planning knowledge, attitude and practice. Multivariate modeling is thereafter used to gain insight into factors that are associated with men's family planning knowledge, attitude and practice in Northern Nigeria. Also, of interest to the study is the extent to which the effects of education, wealth and religion vary across the two sub-regions in the North. This investigation was carried out by adding interaction variables of region and the three covariates to produce other sets of models.

Descriptive analysis

Although the study's focus is on northern Nigeria, the descriptive analysis attempts to portray the country's varied internal diversity in the outcomes studied. The federal capital territory (FCT) is located in the North Central region and, like most places in the region is inhabited by people

from all walks of life and from all regions of the country. Consequently the North Central socio-demographic characteristics are expected to be different from the other two Northern regions. It is thus, treated as a separate category and the other two Northern regions (North East & North West) merged and referred to as Core North. The descriptive analysis highlights regional differences in the following variables:

- **Knowledge** - knowledge of any method; whether condom can be reused and whether condom protects against diseases.
- **Attitudes** - approval of family planning (FP); discussion of FP with partner; woman's right to ask husband to use condom; wife justified to ask husband to use condom if he has sexually transmitted infection (STI); condom diminishes man's sexual pleasure; condom is inconvenient to use and sterilized women become promiscuous.
- **Practice** – ever use of any FP; current use of any FP; most recent FP method used and reasons for not using a method.

Multivariate analysis

The multivariate analysis focuses on Northern Nigeria only (sample of 1,372 men) and focuses on four dependent variables selected amongst the family planning knowledge, attitude and practice variables examined in the descriptive section. These are: knowledge of modern family planning methods; approval of family planning; discussion of family planning with partner and current use of family planning. These variables are direct measures of knowledge, attitude and practice of family planning and the first three are sequential to eventual uptake of methods. They are all coded as binary variables (no, yes), apart from approval to family planning, which has a

third category (don't know), given that 10.2% of respondents reported not knowing their attitude to family planning. For approval of family planning (coded as No, Yes, Don't Know), multinomial logistic regression is used, although only the result of the contrast between approval and disapproval will be shown and discussed. Binary logistic regression models are fitted for the three other dependent variables. The study controls for region, household wealth (constructed on the northern sample); education; religion; place of residence, marital status and age in the models.

Furthermore, the interaction of region with education, wealth and religion with the four dependent variables are examined. Three other models are fitted for each of the dependent variables examined in addition to the full model that comprises the socio-demographic characteristics of respondents. In model 1, the interaction of region and education is added. Model 2 has the interaction of region with wealth while model 3 has the interaction of region with religion. The interaction of region with education, wealth and religion are examined because literature shows that these factors vary by the regions in Nigeria. *The question that we seek to answer through these interaction terms is: does the effect of education, wealth and religion on knowledge, approval, discussion and use of family planning vary in the two regional blocs in northern Nigeria?*

Results

Descriptive Analysis Results

Sample characteristics

The socio-economic and demographic characteristics of the sampled men are presented in Table 1. Of the total sample of 2,346 men, over three-fifths are less than 35 years of age, about 59% lived in the North and about 53% of the men are married with about 78% of the married men in monogamous unions. Six out of ten of the sampled men reside in the rural areas while about one out of five have no formal education. The percentages of Christians and Muslims in the total sample are similar (48.5% and 50.1%, respectively) and almost half of the sampled men are in the top wealth category. Variations between the regions of the country in the selected socio-economic and demographic characteristics examined are evident in columns 2-5 of Table 1.

- Table 1 about here -

Knowledge of family planning

The knowledge (including functional) of family planning by Nigerian men is presented in Table 2. There is evidence that awareness of family planning is quite high, with about 90% of men admitting knowledge of at least one modern method of contraception. The percentage is slightly higher among men from North Central (92.8%) and the South (91.5%), compared to men from the Core North (86.4%). However, functional knowledge of condom appears very low among men, with only about 45%, 36% and 48% of men from North Central, Core North, and South, respectively disagreeing that condom can be reused. Also, about half of the men in all the regions did not know whether a condom could be reused or not, implying that they may not have used condoms or heard about how to use them correctly.

Compared to the South (53.5%), more men in the North (67.6%) agree that condoms are protective against diseases. Also, there were more men in the south (43.6%) than in the north (26.9%) who do not know whether or not condoms are protective against diseases. Although, there are debates on the protective effect of condom, which could have affected the findings observed in the South in this regard, this is beyond the objective of this study and the results are taken and interpreted at face value. Altogether therefore, these findings suggest at least two important things: that men in the south lag behind those in the north with respect to knowledge about the protective role of condoms and that formal education does not immediately translate into functional knowledge about condoms. Despite their higher levels of academic attainment, men in the south have poorer knowledge about condoms than the men in the north.

- Table 2 about here -

Family planning attitude

Table 3 presents the distribution of the sample of men in the 2003 NDHS by some of their attitudes (both direct and indirect) to a variety of family planning issues. As shown in Table 3, only about one-third of men from the Core North approve the use of family planning for the regulation of births. The percentages of men that approve the use of family planning in the North Central and the South are much higher at 62.8% and 62%, respectively. Results further indicate that discussion of family planning with partners is virtually nonexistent in the country as less than 10% of men surveyed reported that they have ever discussed family planning with their partners. The lowest reported percentage in this regard is in the Core North (4.6%).

More than half of the men in all the regions do not know whether condom diminishes a man's sexual pleasure or is inconvenient to use. A very large percentage of the remaining half especially in the Core North agreed that condom diminishes man's sexual pleasure and is inconvenient to use (45.5% and 41.9%, respectively). Over half of the men in the Core North viewed contraception as a woman's business compared to 18% in the North Central and in the South. The large percentage of men from the Core North, who consider contraception as woman's business, underscores the enormity of attitude challenge posed by men's unfavourable attitudes to family planning uptake in the region.

- Table 3 about here -

Over 50% of men from the Core North compared to about 14% and 10% from the North Central and the South, respectively agree that a woman has no right to ask her husband to use condom. However, a slightly higher percentage (greater than 80%) of men in the North compared to men in the South (76%) agreed that a wife is justified to ask her husband to use condom if he has sexually transmitted infection (STI). Results also show that over three-fifths of the men from the Core North and about two-fifths of the men from North Central and the South agree that sterilized women become promiscuous. This could be an indication of the type of family planning method that they approve.

Family planning practice

There is considerable research evidence that men influence effective use of contraceptives and even satisfaction with the chosen method (Berhanu et al, 1999). For example, a man must actively participate for a couple to use condom correctly and consistently. In Table 4, it is

evident that a substantial percentage of Nigerian men are not users nor have they ever used any method of contraception. Only about 10% of men in the Core North and about 50% of men in the North Central and the South have ever used any method of contraception. The percentage of current users is even much lower (less than 5% in the Core North, 24% in the North Central and 29% in the South). This translates into a high contraceptive discontinuation rate especially among men in the North Central and South (22.9% and 24.1%, respectively). However, ever and current male users tend to prefer modern method of contraceptives for regulation of births.

- Table 4 about here -

Table 4 also shows that the male condom is the most popular with a much higher percentage of North Central and Southern men (14.6% and 18.3%, respectively) using it compared to the men from Core North (2.3%). Female-based methods and male-involved methods (periodic abstinence, withdrawal and male sterilization) were other commonly-mentioned methods in the North. The reverse is however the case in the South where other male involved methods are used more than the female based ones. It is further shown that desire for (more) children was the most frequently cited reason for not using contraceptives among the men surveyed. About half of the men from the Core North and the South and three-fifths of the men from North Central desired (more) children. Among other things, this suggests a lack of understanding about the child spacing role of contraceptives. Other key reasons cited by men for not using contraceptives include: religious, personal, spousal or other external disapproval to the use of contraception; lack of knowledge of and inaccessibility to contraception due to distance and cost as well as health related concerns; infrequent sex; menopausal/infecundity and postpartum factors.

Multivariate Analysis Results

Factors associated with modern knowledge, approval, discussion and use of family planning among men in northern Nigeria

Table 5 presents the regression coefficients of factors associated with knowledge of modern methods; approval; discussion and current use of family planning. The results show that education is significantly and positively associated with the four outcome variables. This implies that the higher the level of education of the men the more likely they are to have knowledge of modern methods; approve; discuss with partners and be current users of family planning methods. Wealth has a similar positive association with all the outcome variables but is only significant for knowledge of family planning in general and also, for use among men in the top wealth bracket. Muslim men are less likely to know, approve, discuss or use modern methods of family planning. This is however significant for approval and discussion only.

- Table 5 about here -

Table 5 further shows that approval and use of family planning methods for the regulation of births are significantly less likely among men in the Core North compared to men in the North Central. All the outcome variables are interestingly more likely among men in the rural areas compared to the men in urban areas although, the results are statistically insignificant. Men in marital union are less likely to know, approve or use modern methods of contraception but are more likely to discuss it with their partners compared to men that are not in union. Men that are 25 years or older are more likely to know, approve, discuss and use modern methods of family planning and the results are especially significant for approval.

Interaction of region with education, wealth and religion in northern Nigeria

The net effects are used in the interpretation of the results of the additional Models 1, 2 and 3 in this section. For the Core North, the coefficients in the North Central, their differences with the Core North and the models constant estimates are pooled together to get the net effect. The net effect of education, wealth and religion on the outcome variables in the North Central are derived by adding the coefficients in the North Central and the models constant estimates. The net effects of the two regions are thereafter compared to ascertain where the effects of education, wealth and religion are stronger between the two regions for the four outcome variables examined.

Regional differences in the effects of education

The multivariate regression analysis underscores the fact that education is positively related to modern contraceptive knowledge, approval, discussion with partner and use of family planning among men in Northern Nigeria. In Table 6, we show the differences across the two regions in the north. The association between education levels and the four outcomes under consideration is generally stronger in the North Central relative to the Core North.

- Table 6 about here -

Regional differences in the effects of wealth

Following from the multivariate results, wealth status showed a positive association with men's knowledge, approval, discussion and use of modern contraceptives in Northern Nigeria. In Table 6, we show that wealth status is positively associated with knowledge of modern methods of contraception in the regions of northern Nigeria with stronger influence noticeable in the Core North. However, for the other outcomes (approval, discussion with partner and use), the

relationship is consistently positive in the North Central and negative or inconsistent in the Core North region (but generally poor in both regions) showing differential effect of wealth in the two regions. Further, the result suggests that lack of discussion of family planning is more pronounced in non-poor households of the Core North region.

Regional differences in the effects of religion

The multivariate analyses indicated that Islamic religion is negatively associated with the four outcomes investigated. However, the interaction of religion with region as predictor of the outcome variables (presented in Table 6) shows the negative influence of religion in general on approval, discussion and use of contraception in northern Nigeria. Although the negative effect is more pronounced in the Core North, between the two regions is only observed in the effect of religion on knowledge of modern method of contraception.

Discussion

This study documents the knowledge, approval, discussion and use of family planning as well as the factors associated with them among men in northern Nigeria. The high knowledge of modern methods of family planning among the sampled men suggests that ongoing efforts to increase awareness are generally on target. It is worth noting the very low use (about four times lower than in the South) of withdrawal method in Northern Nigeria despite the fact that it is permitted by Islam – the dominant religion in the area. Desire for more children being the most frequently cited reason for non-use of family planning methods among the men sampled suggests poor understanding of the role of contraceptives in child spacing. Non-uptake of modern contraceptives due to disapproval, health concerns and lack of access to methods found in this study have also been found by other studies (Rehan 1984; Ujah, 1991).

This study also found that education and wealth were positively associated with knowledge, approval, discussion and use of family planning methods in northern Nigeria. Duze and Mohammed (2006) similarly found a large effect of education and income on contraceptive use in northern Nigeria. The less likelihood of the four outcomes occurring among Muslim men and the less likelihood of approval and use among men in the Core North clearly suggest the population that policies and programmes need to target for the achievement of sustainable reproductive health and fertility indicators in northern Nigeria. The varied effect of wealth on approval, discussion and use of family planning methods; that of religion on knowledge; and the general stronger effect of education, wealth and religion in the North Central compared to the Core North seem to confirm anecdotal suggestions of differences between the North Central and the Core North.

There are important policy and program implications for the results of this study. Although Nigerian men have high awareness about modern methods of contraception, the knowledge of the benefits of using contraceptives is low. The low level of knowledge on the correct use of condom is equally of concern as it may lead to poor contraceptive use outcomes. There are also low levels of discussion with partners and use of the family planning methods in general. If these issues are left unchecked, they may lead to unfettered childbearing and may further exaggerate the fear that people have about contraceptive methods. For awareness to translate into effective high-level uptake therefore, the need exists to prioritize programs that will provide holistic knowledge (including appropriate method choice, correct use and the benefits of use) of family planning methods among Nigerian men in general taking into consideration the country's varied

cultural context. Creating a partnership role for the men in issues relating to family planning and fertility in general is key to improving attitude and uptake of contraceptives in households.

Although desire for more children remains the major reason for non-use of contraception, the other reasons relating to general disapproval and health related concerns provide avenues for meaningful program design to address the issues. Uninterrupted access to a reasonable range of effective contraceptive methods at affordable prices could lead to huge gains in improving overall levels of contraceptive use. Efforts should also be made in getting those who approve the use of contraceptives to practice and to get those who do not approve to do so and even practice. Also important is an understanding of any obstacles users in the region may have encountered in their use of methods and developing programs to mitigate discontinuation of use among users.

The positive effect of education and wealth on the four outcomes in general and variation in the effects of education, wealth and religion on these variables in the two northern regions showed the varied impact of socio-economic and cultural circumstances in the regions. It also suggests the population that is in dire need of intervention and what could be done to improve their attitudes and behavior on issues of contraception. Addressing the issue of low educational attainment and poverty is therefore important for a meaningful and sustained progress in contraceptive and reproductive health outcomes especially in Core North, Nigeria.

On the research front, spousal disapproval as a reason for non-use of contraception given by the men sampled is a key finding in this study in view of the vintage position that men enjoy in Nigerian societies. The percentage of men who stated menopausal/infecundity reasons in the

North Central and in the South was also quite high. These two findings particularly require further examination to inform sexual and reproductive health policies and intervention(s) through individual's life course.

More research to understand the dynamics of men's involvement in women's use of family planning in northern Nigeria is also important and would provide data for informing programs to reach men more directly with family planning messages. The current method of targeting women attending antenatal or postnatal care and hoping that the message will reach the men through their wives is riddled with many limitations and a more direct programmatic focus on men is urgent.

References

- Adewuyi A. and Ogunjuyigbe P. (2003). The role of men in family planning: An examination of men's knowledge and attitude to contraceptive use among the Yorubas. *African Population Studies*, 18(1): 35-49.
- African Population and Health Research Center. (2007). Unmet need for contraception in Nigeria: A focus on the Packard Foundation Program States.
- Ajuwon A.J, Olley B.O, Akintola O and Akin-Jimoh I. (2004). Sexual coercion in adolescents: exploring the experiences of rape victims in Ibadan, Nigeria. *Health Education*, 104 (1):8-17
- All Party Parliamentary Group on Population Development and Reproductive Health (APPGPDRH), (2007). Return of the population growth factor: It's impact on the Millennium Development Goals. HMSO, London, 2007. www.appgpopdevrh.org.uk/
- Balk D. (1994). Individual and community aspects of women's status and fertility in rural Bangladesh. *Population Studies*, 48(1): 21-45

- Bankole A and Singh S. (1998). Couples' fertility and contraceptive decision-making in developing countries: Hearing the man's voice. *International Family Planning Perspectives*, 24(1):15-24.
- Berhanu Y, Mekonnen E, Zerihun L, Asefa G. (1999). Perception of fertility regulation in a remote community, south Ethiopia. *Ethiopia Journal of Health Development*, 13(3):217-221.
- Bledsoe C. and Cohen B. (1993). Social dynamics of adolescent fertility in sub-Saharan Africa. Washington DC: National Academies Press.
- Caldwell J.C, Caldwell P. (1990). Cultural forces tending to sustain high fertility. In Population growth and reproduction in sub-Saharan Africa: Technical analysis of fertility and its consequences. World Bank Washington DC: USA, 199-214.
- Campbell M, Cleland J, Ezeh A. and Prata N. (2007). Return of the population growth factor. *Science, New Series*, 315(5818): 1501-02.
- Casterline J. B, Perez A.E. and Biddlecom A.E. (1997). Factors underlying unmet need for family planning in the Philippines, *Studies in Family Planning* 28(3): 173- 191.
- Casterline, J.B. and Sinding, S.W. (2000), Unmet need for family planning in developing countries and implications for population policy, *Population and Development Review* 26(4): 691–723.
- Clements S and Madise N. (2004). Who is being served least by family planning providers? A study of modern contraceptive use in Ghana, Tanzania and Zimbabwe. *African Journal of Reproductive Health*, 8(2): 124-136.
- Deepika G, Jejeebhoy S, Nidadavoluand V, Santhya K.G, Finger W, Thapa S, Shah I and Warriner I. (2004). *Sexual Coercion: Young men's experiences as victims and perpetrators*. www.popcouncil.org.
- DeRose L.F. (2003). Marriage, lineage, relative spousal power and fertility decline in Ghana. <http://paa2004.princeton.edu/download.asp?submittedId=40838>
- Dharmalingam A. and Morgan S.P. (1996). Women's work, autonomy, and birth control: evidence from two south India villages. *Population Studies*, 50(2): 187-201.
- Dodoo F.N. (1993). A couple analysis of micro-level supply/demand factors in fertility regulation. *Population Research and Policy Review*, 12: 93-101.
- Donovan P. (1995). In Nigeria, traditions of male dominance favor large families, but some men report having fewer children. *International Family Planning Perspectives*, 21(1):39-40.

- Duze C. and Mohammed I.Z. (2006). Male knowledge, attitudes and family planning practices in northern Nigeria. *African Journal of Reproductive Health*, 10(3): 53-65.
- Ezeh A. C, Seroussi M. and Raggars H. (1996). Men's fertility, contraceptive use, and reproductive preferences. DHS Comparative Studies No. 18, Macro International, Calverton, MD.
- Ezeh A. C. (1993). The Influence of spouses over each other's contraceptive attitudes in Ghana. *Studies in Family Planning*, 28(2): 104-121.
- Finer L.B, Darroch J.E, and Frost J.J. (2003). Services for men at publicly funded family planning agencies, 1998-1999. *Perspectives on Sexual and Reproductive Health*, 35(5): 202-207.
- Ibisomi L.D.G. (2007). Analysis of fertility dynamics in Nigeria: Exploration into fertility preference implementation. Doctoral thesis submitted to the Faculty of Humanities, University of the Witwatersrand, Johannesburg, South Africa.
- Isiugo-Abanihe U.C. (1994). Reproductive motivation and family size preferences among Nigerian men. *Studies in Family Planning*, 25(3):149-161.
- Isiugo-Abanihe U.C. (2003). Male role and responsibility in fertility and reproductive health in Nigeria. Lagos: Ababa Press Ltd.
- Jejeebhoy S.J. and Bott S. (2003). Non-consensual sexual experience of young people: A review of the evidence from developing countries. www.popcouncil.org
- Lasee A. and Becker S. (1997). Husband-wife communication about family planning and contraceptive use in Kenya. *International Family Planning Perspectives*, 23(1):15-21.
- Luke N. (2003). Age and economic asymmetries in the sexual relationships of adolescent girls in sub-Saharan Africa. *Studies in Family Planning*, 34(2): 67-86.
- Malhotra A. and Tsui A.O. (1996). Marriage Timing in Sri Lanka: The Role of Modern Norms and Ideas. *Journal of Marriage and the Family*, 58(2): 476-490.
- Morgan S.P and Niraula B.B. (1995). Gender inequality and fertility in two Nepal villages. *Population and Development Review*, 21:541-561.
- National Population Commission (Nigeria)/ORC Macro. (2004). Nigeria Demographic and Health Survey, 2003. Calverton, Maryland: National Population Commission and ORC/Macro.
- Ochola L. (2002). Reproductive health: The international community's poor relative? Conference Proceedings on International Dialogue, Population and Sustainable development. Berlin June 20, 2002.

ORC/Macro. (2009). StatCompiler. www.measredhs.com

Rehan N. (1984). Knowledge, attitude and practice of family planning in Hausa women. *Social Science and Medicine*, 18 (10): 839-44.

Roth D.M and Mbizvo M.T. (2001). Promoting safe motherhood in the community: The case for strategies that include men. *African Journal of Reproductive Health*, 5(2): 10-21

Speizer I.S, Hotchkiss D.R, Magnani R.J, Hubbard B. and Nelson K. (2000). Do service providers in Tanzania un- necessarily restrict clients' access to contraceptive methods? *International Family Planning Perspectives*, 26(1): 13-20, 42.

Terefe A and Larson C.P. (1993). Modern contraception use in Ethiopia: does involving husbands make a difference? *American Journal of Public Health*, 83(11): 1567-1571

Ujah I. (1991) Sexual activity and attitudes toward contraception among women seeking termination of pregnancy in Zaria, northern Nigeria. *International Journal of Gynaecology and Obstetrics*, 35(1):73-7.

Acknowledgement

The authors acknowledge the financial support from the Packard Foundation that funded the researchers' time in the analysis of the 2003 Nigeria Demographic and Health Survey (NDHS) male dataset under the reproductive norms and behavior project in northern Nigeria (Grant # 2007-31851).

Table 1: Percentage Distribution of Men by Selected Characteristics, NDHS 2003

Variable	North Central	Core North	All North	South	National
Mean age	30.18	31.90	31.46	30.26	30.96
Age group					
15-24	41.0	33.4	35.3	40.6	37.5
25-34	26.9	26.0	26.2	27.4	26.7
35-44	17.8	21.2	20.3	15.3	18.2
45+	14.3	19.4	18.1	16.7	17.6
Residence					
Urban	27.8	32.4	31.2	45.6	37.2
Rural	72.2	67.6	68.8	54.4	62.8
Education					
None	13.5	41.6	34.5	3.5	21.6
Primary	23.5	24.7	24.4	27.5	25.7
Secondary+	63.0	33.6	41.1	69.0	52.7
Religion					
Christianity	60.5	10.5	23.2	84.2	48.5
Islam	37.8	89.1	76.0	13.7	50.1
Traditional/Other	1.7	0.4	0.8	2.2	1.4
Marital status					
Not in union	50.2	35.9	39.6	57.3	47.0
Married-monogamy	38.4	47.1	44.9	35.9	41.2
Married-polygamy	11.5	16.9	15.5	6.8	11.9
Wealth Status*					
Poor	30.5	49.8	44.9	23.1	35.8
Middle	26.7	23.8	24.6	10.2	18.6
Rich	42.8	26.4	30.5	66.8	45.6
Total	349 (14.9%)	1023 (43.6%)	1372 (58.5%)	974 (41.5%)	2346 (100%)

* This is based on the national sample and is classified as: the first 40%, the next 20% and the last 40%.

Table 2: Percentage Distribution of Men by their Knowledge of Family Planning, NDHS 2003

Variable	North Central	Core North	All North	South	National
Knowledge of any method					
No method	6.9	12.6	11.2	8.0	9.8
Traditional	0.3	1.0	0.8	0.5	0.7
Modern	92.8	86.4	88.0	91.5	89.5
Condom can be reused					
Disagree	45.1	36.3	38.6	47.8	42.4
Agree	6.0	14.7	12.5	1.8	8.1
Don't know	48.9	49.0	48.9	50.4	49.5
Condom protect against diseases					
Disagree	3.2	6.3	5.5	2.9	4.4
Agree	66.5	67.9	67.6	53.5	61.7
Don't know	30.4	25.8	26.9	43.6	33.8
Total	349	1023	1372	974	2346

Table 3: Percentage Distribution of Men by their Attitude to the Use of Family Planning Methods, NDHS 2003

Variable	North Central	Core North	All North	South	National
Approval of the use of family planning					
Disapproves	31.8	59.1	51.9	23.1	39.6
Approves	62.8	33.7	41.4	62.0	50.2
Don't know	5.4	7.1	6.7	14.9	10.2
Discussed family planning with partner					
No	89.4	95.4	93.8	92.2	93.1
Yes	10.6	4.6	6.2	7.8	6.9
Woman has no right to ask husband to use condom					
Disagree	35.1	22.7	25.9	39.3	31.5
Agree	13.9	52.3	42.6	10.3	29.2
Don't know	51.0	25.0	31.6	50.4	39.4
Wife justified to ask husband to use condom if he has STI					
No	8.3	6.7	7.1	8.6	7.7
Yes	86.1	81.7	82.8	75.9	80.0
Don't know	5.6	11.5	10.1	15.5	12.3
Condom diminishes man's sexual pleasure					
Disagree	17.2	3.8	7.1	19.4	12.2
Agree	30.4	45.5	41.6	27.4	35.7
Don't know	52.4	50.7	51.2	53.2	52.0
Condom is inconvenient to use					
Disagree	23.8	6.2	10.7	31.6	19.4
Agree	22.3	41.9	37.0	15.6	28.1
Don't know	53.9	51.9	52.4	52.8	52.5
Contraception is woman's business					
Disagree	65.2	36.6	43.9	52.0	47.2
Agree	18.4	51.3	42.9	18.2	32.7
Don't know	16.4	12.1	13.2	29.9	20.1
Sterilized women become promiscuous					
Disagree	45.1	20.4	26.7	26.4	26.6
Agree	37.1	62.3	55.8	40.4	49.4
Don't know	17.8	17.3	17.5	33.2	24.0
Total	349	1023	1372	974	2346

Table 4: Percentage Distribution of Men by their Family Planning Practice, NDHS 2003

Variable	North Central	Core North	All North	South	National
Ever use of any method					
Never used	53.4	88.4	79.5	47.4	66.2
Traditional	11.8	4.4	6.3	12.0	8.7
Modern	34.8	7.2	14.2	40.6	25.2
Current use by method					
None	76.3	95.2	90.4	71.5	82.5
Traditional	3.9	0.8	1.6	5.9	3.4
Modern	19.8	4.0	8.0	22.6	14.1
Most recent method					
Not using	72.8	92.1	87.2	69.6	79.9
Female based	4.3	1.6	2.3	3.3	2.7
Condom	14.6	2.3	5.5	18.3	10.8
Other male involved methods*	3.7	0.6	1.3	5.2	3.0
Others	4.6	3.4	3.7	3.6	3.7
Reason not using method					
Want more children	61.8	50.1	52.3	49.3	51.4
Disapproval/religion	2.0	30.8	25.2	12.8	21.4
Health related	3.3	1.6	1.9	3.9	2.5
Infrequent sex	3.3	3.0	3.2	3.0	3.1
Inaccessibility					
(knowledge/source/cost)	8.6	5.9	6.4	9.8	7.4
Menopausal/Infecundity	10.5	1.9	3.6	9.8	5.5
Postpartum factors	3.3	4.5	4.2	4.5	4.3
Other	3.9	1.6	2.0	3.0	2.3
Don't know	3.3	0.6	1.2	4.2	2.1
Total	349	1023	1372	974	2346

* - This includes male sterilization, periodic abstinence and withdrawal methods.

Table 5: Logistic Regression Coefficients of Factors Associated with Knowledge, Approval, Discussion and Use of Family Planning Among Men in Northern Nigeria

Variables	Knowledge of modern method	Approval	Discussion	Use
Region				
North Central (ref)	0.000	0.000	0.000	0.000
Core North	0.124	-0.790*	0.113	-1.192*
Education				
None (ref)	0.000	0.000	0.000	0.000
Primary	1.205*	0.359*	1.221*	1.440*
Secondary+	1.967*	0.905*	2.538*	1.873*
Wealth Status				
Poor (ref)	0.000	0.000	0.000	0.000
Middle Income	0.744*	0.199	-0.199	0.183
Rich	0.975*	0.241	0.225	0.788*
Religion				
Other (ref)	0.000	0.000	0.000	0.000
Islam	-0.132	-0.375*	-1.434*	-0.259
Age				
15-24 (ref)	0.000	0.000	0.000	0.000
25-44	0.834*	0.510*	0.661	0.739*
45+	0.133	0.646*	0.917	0.247
Residence				
Urban (ref)	0.000	0.000	0.000	0.000
Rural	0.147	0.252	0.273	0.087
Marital Status				
Not in union (ref)	0.000	0.000	0.000	0.000
Married – monogamy	-0.365	-0.334	1.017*	-0.499
Married – polygamy	-0.014	-0.368	0.747	-1.229*
Constant	0.450	-0.326	-5.119*	-3.560*
Pseudo R²	0.159	0.081	0.202	0.182

* - Significant at $p < 0.05$

Ref – Reference category

Base Population: All men from the three northern regions interviewed during the 2003, NDHS

Table 6: Summary of multivariate models' coefficients from the interaction of region with education, wealth and religion on knowledge, approval, discussion and use of family planning methods.

Model type	Variables	Knowledge of modern method of FP	Approval of FP	Discussion of FP with partner	Use of modern method of FP
From the interaction of region with education models	Education				
	None (ref)	0.000	0.000	0.000	0.000
	Primary	0.482	1.023*	2.311	17.569*
	Secondary+	2.454*	1.694*	3.494*	17.979*
	Region*Education				
	North-Central*No-education(ref)	0.000	0.000	0.000	0.000
	North East & West*Primary	0.978	-0.750	-1.342	-16.539*
North East & West*Secondary+	-0.760	-0.967*	-1.107	-16.510	
Constant		0.624	-0.957*	-6.081*	19.652*
Pseudo R²		0.165	0.084	0.203	0.186
From the interaction of region with wealth models	Wealth Status				
	Poor (ref)	0.000	0.000	0.000	0.000
	Middle Income	0.598	0.461	0.028	0.850
	Rich	0.925	0.934*	0.801	1.108*
	Region*Wealth				
	North Central*Poor (ref)	0.000	0.000	0.000	0.000
	North East & West*Middle	0.175	-0.313	-0.293	-1.460*
North East & West*Rich	0.062	-0.995*	-0.959	-0.565	
Constant		0.503	-0.688*	-5.543	-3.981
Pseudo R²		0.159	0.085	0.206	0.188
From the interaction of region with religion models	Religion				
	Other (ref)	0.000	0.000	0.000	0.000
	Islam	0.479	0.268	-1.024	-0.167
	Region*Religion				
	North Central*Other (ref)	0.000	0.000	0.000	0.000
North East & West*Islam	-1.225	-1.141*	-0.641	-0.253	
Constant		0.295	-0.454	-5.101	-3.551*
Pseudo R²		0.162	0.086	0.204	0.182