

## ORIGINAL RESEARCH ARTICLE

# Knowledge, Perceptions and Ever Use of Modern Contraception among Women in the Ga East District, Ghana

Aryeetey R<sup>1</sup>, Kotoh AM<sup>1</sup> and Hindin MJ<sup>2</sup>

<sup>1</sup>Department of Population, Family and Reproductive Health, University of Ghana, Legon; <sup>2</sup>Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD USA

\*For correspondence: Richmond Aryeetey Email: rnokai@gmail.com

## Abstract

A survey of 332 women, ages 15-49 years, was carried out in the Ga East district of Ghana to identify community knowledge, perceptions, and factors associated with ever using modern family planning (FP). Knowledge of modern FP was almost universal (97 percent) although knowledge of more than three methods was 56 percent. About 60 percent of all, and 65 percent of married respondents reported ever use of a modern method. Among ever users, 82 percent thought contraceptives were effective for birth control. However, one-third did not consider modern FP safe. About 20 percent indicated their male partner as a barrier, and 65 percent of users reported at least one side effect. In a multivariate model that controlled for age, education, religion, and occupation, being married remained significantly associated (OR=2.14; p=0.01) with ever use of a modern contraceptive method. Interventions are needed to address service- and knowledge-related barriers to use (*Afr J Reprod Health* 2010; 14[4]: 27-32).

## Résumé

**Connaissance, perceptions et utilisation constante de la contraception moderne chez les femmes dans le district de Ga de l'Est, Ghana.** Une enquête de 332 femmes âgées de 15 à 49 ans a été menée dans le district de Ga de l'Est au Ghana pour identifier la connaissance de la communauté, ses perceptions et les facteurs liés à l'utilisation constante de la planification familiale moderne (PF). La connaissance de la PF moderne était presque universelle (97%) bien que la connaissance de plus de trois méthodes était de 56%. A peu près 60% de toutes les répondantes et 65% de répondantes mariées ont déclaré une utilisation constante d'une méthode moderne. Parmi les utilisatrices constantes, 82% ont pensé que les contraceptifs sont efficaces pour la limitation des naissances. Néanmoins, un tiers n'ont pas considéré la PF moderne comme étant sans danger. Environ 20% ont indiqué leur partenaire male comme étant un obstacle et 65% des utilisatrices ont déclaré au moins un effet secondaire. Dans un modèle multifactoriel qui a contrôlé l'âge, l'instruction, la religion et l'occupation, le fait d'être marié est resté sensiblement lié (OR=2,14 ; p=0,01) à l'utilisation constante d'une méthode de la contraception moderne. Il faut des interventions pour s'occuper des obstacles liés aux services et à la connaissance dont on se servira (*Afr J Reprod Health* 2010; 14[4]: 27-32).

---

**Keywords:** Ghana, family planning, knowledge, perception, women

---

## Introduction

Many sub-Saharan African (SSA) countries have persistent high rates of unmet need for family planning.<sup>1-2</sup> and low rates of contraceptive use. The low levels of utilization are typically a function of both the limited capacity of the health system and the framework within which family planning (FP) services are delivered. Other factors affecting service provision include tenuous commodity security and suboptimal service factors (PRB 2008).<sup>3</sup> At the individual level also, multiple barriers to utilization have been identified, including risk perception, insufficient knowledge needed to make informed choices, opposition from male partners, and health service limitations.

With only a few exceptions, low contraceptive prevalence rates (CPR) are found in West Africa.<sup>4</sup> The delivery and utilization of family planning services in the state of Ghana are a reflection of the situation in West Africa. A series of Demographic and Health Surveys (DHS) beginning from the late 1980s describes a steady rise in modern contraceptive usage.<sup>5</sup> However, the 2008 DHS indicates a CPR of 17 percent, a slight decline from the 2003 CPR of 19 percent.<sup>6</sup> Although marginal improvements in infrastructure and consumable items needed for service delivery have been observed,<sup>7</sup> also noted are barriers to the utilization of family planning: frequent periods of contraceptives being out of stock at the facility level, limited provider skills, limited use of educational tools, and limited number of methods.

In Ghana, district health administrations serve as the primary functional unit for FP management. Therefore, improving capacity for service delivery at the district level can enhance access to, and eventually utilization of, FP services. We report on a survey carried out in the Ga East district of Ghana to describe community awareness and perception of family planning, and also to identify the determinants of modern family planning (FP) use in the district. The study was commissioned by the district health administration to understand why the coverage of family planning was suboptimal and why there was an increasing trend of adolescent pregnancy in the community.

## Methods

Data for this study were collected in 2006 in the Ga East, a predominantly peri-urban district situated about 30 minutes drive from the central business district of Ghana's capital, Accra. Reproductive and other health services are provided mainly through health centers, reproductive health clinics, and community-based mobile satellite clinics. These services are complemented by private clinics, midwife-managed maternity homes, and chemical stores. In addition, because of proximity to Accra, residents of the district have access to hospitals and other health facilities and services in Accra.

In the current study, a household survey was carried out in four purposively selected communities with one community selected in each of the four sub-districts. In each sub-district, the most populous community was selected for inclusion in the survey. Within each community, a trained field assistant spun a bottle at a central location to select the first house for entry for interviews. Within each selected house, all male and female residents aged 15-59 years who were willing to participate were interviewed. The bottle spinings continued to select the next houses for entry until the sample size of 120 adult and adolescent respondents per community was attained.

The survey collected data on awareness, perception, and utilization of family planning methods as well as barriers to accessing family planning services. Trained interviewers administered the survey face to face, in English or the local Akan and Ga languages. In this article, we report only on data for adult females, who constituted 70 percent of the respondents.

### *Data Analysis*

Data analyses were performed using SPSS version 15 (SPSS Inc, Chicago). Descriptive characteristics of respondents were summarised using proportions. Dependent variables included respondent knowledge of family planning methods and their

use. Additional dependent variables were respondents' overall perception of contraception, barriers to access and use of modern contraceptives, and ever use of modern contraception. Bivariate and multivariate logistic regression models were used to identify respondent characteristics that predicted ever use of modern FP methods.

## Results

### *Respondent Characteristics*

A total of 332 sexually active women were included in the current study; most (80 percent) were between ages 20 and 40 years (Table 1). Fewer than 10 percent of the women included in the sample were below age 20. Most women (68 percent) were married at the time of the survey. Respondents' ethnicity was classified across the following main groups: Akan (52 percent), Ewe (24 percent), and Ga (16 percent). More than 80 percent had completed basic education, but only 37 percent had completed, at least, secondary education. Many of the respondents (52 percent) were self-employed in trading, dressmaking, hairdressing, and other artisanal occupations.

About 30 percent of respondents reported aborting a pregnancy at least once; 50 percent of these had more than one episode of abortion. Among women who had ever aborted a pregnancy, 45 percent were unwanted. Almost 20 percent of respondents reported contraceptive failure using oral contraception.

### *Awareness of Contraception*

Modern contraceptive methods available through the public health system as well as through commercial outlets such as chemical stores, pharmacies, and other social marketing organizations, in the Ga East district, are listed in Table 2. Respondents expressed almost universal awareness (99.7 percent) of at least one family planning method. Additionally, almost all respondents could indicate at least one modern method of contraception (Table 2). About 55 percent had heard of more than three modern methods. However, there was a wide range of knowledge across methods. The male condom and injectables were the most commonly mentioned methods. In a multiple linear regression model that controlled for age, occupation, marital status, and religion, the number of modern methods known to women increased with an increasing level of education ( $b=1.41$ ;  $p<0.01$ ; data not shown).

With respect to awareness, our results indicate two main groups of contraceptives. One group, which included the male and female condom, the

**Table 1:** Characteristics of Ghanaian women included in survey (N=332)

Characteristic	Number	%
<b>Sub-district</b>		
Danfa	80	24.1
Madina	81	24.4
Taifa	89	26.8
Dome	82	24.7
<b>Education level (n=327)</b>		
None	49	15.0
Basic	157	48.0
Secondary or higher	121	37.0
<b>Age groups (yr)</b>		
15-19	21	6.3
20-29	167	50.3
30-39	99	29.8
40-49	45	13.6
<b>Marital status (n=330)</b>		
Single	106	32.1
Currently married	224	67.9
<b>Religion (n=331)</b>		
Christian	310	93.7
Other	21	6.3
<b>Ethnicity (n=327)</b>		
Akan	169	51.7
Ewe	78	23.9
Ga-Dangme	53	16.2
Other	27	8.2
<b>Occupation (n=294)</b>		
Students	23	7.8
Unemployed	34	11.6
Self-employed	152	51.7
Students and apprentices <sup>1</sup>	44	15.0
Formal employment <sup>2</sup>	41	13.9

<sup>1</sup>Vocational occupation, e.g., seamstress, hair dressing etc.

<sup>2</sup>Employed by institution, e.g., teacher, nurse, etc

pill, and injectables, was known to most of the respondents. Awareness of any one of the above-mentioned methods was reported by at least 79 percent of respondents. The other group, including female sterilization, intrauterine device, and emergency contraceptive pill, was less commonly known by most respondents (Table 2). Awareness of any of the contraceptives in the second group never exceeded 40 percent among respondents.

#### Perceptions about Contraception

As indicated in Table 3, almost all respondents considered family planning as an important health action (97 percent). The main reasons given by respondents for using family planning were to space births (57 percent), delay births (42 percent), and prevent sexually transmitted infections (21 percent).

**Table 2:** Awareness of ever use of family planning by women in the Ga East district (N=332)

Family planning	Aware of, %	Ever use, %	
		All women	Currently married
Male condom	88.6	29.8	25.9
Injectable	84.3	16.0	21.9
Pill	79.5	15.1	30.8
Female condom	79.2	3.0	3.1
Female sterilization	39.5	0.6	0.9
IUD <sup>1</sup>	39.5	2.7	3.6
Male sterilization	31.6	-	-
Emergency contraceptive	32.2	3.3	2.7
Diaphragm	26.8	0.9	0.9
Spermicide	25.6	5.1	5.4
Lactational ammenorrhea	24.5	3.9	4.9
Norplant	8.5	2.7	3.1
Modern method <sup>2</sup>	99.7	59.6	64.7
Any method <sup>3</sup>	99.7	66.6	72.3
More three modern methods	55.4	-	-

<sup>1</sup>Intra uterine device

<sup>2</sup>All methods listed

<sup>3</sup>All listed methods plus withdrawal, and rhythm method

Among respondents who have used any contraceptives, 76 percent indicated that they felt comfortable using them. A majority of respondents (78 percent) indicated that both partners should be involved in the decision to use any contraceptive, while only 18 percent indicated that the decision should be made exclusively by the woman.

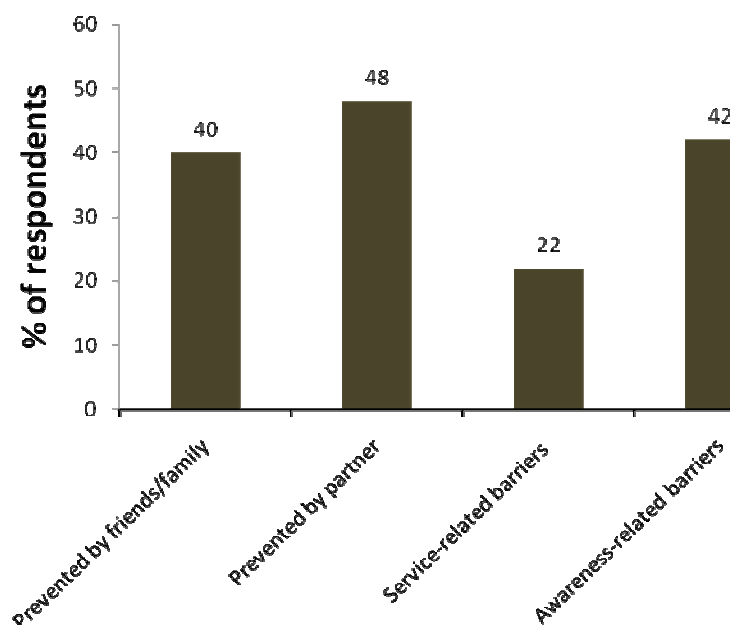
Three broad categories of barriers to contraceptive use were identified: service-related, awareness-related, and influence of partner/others (Figure 1). The main service-related barriers were receiving family planning services from a provider of the opposite gender (58 percent), the young age of the provider (42 percent), and a long waiting time (23 percent). Additionally, while most women indicated that having adequate privacy is important to accessing family planning, only 12 percent of women who had ever used contraceptives indicated adequate privacy while accessing family planning services. Fewer than 5 percent of respondents indicated cost of service as a barrier to accessing family planning services.

As part of awareness-related barriers, about 40 percent of all respondents and 5 percent of ever users indicated that contraceptives are not effective for preventing pregnancies. Furthermore, 33 percent of women indicated that contraceptives were not a safe approach to family planning. Almost 30 percent of all respondents indicated that they were not comfortable with the use of any contraceptive. About 64 percent of all respondents and 65 percent of ever users reported at least one perceived side effect of using any modern method of contraception.

**Table 3:** Perception of modern contraceptives among 15-49 year old Ghanaian women in the Ga East district (n=332)

Variables	Category of respondents		
	Ever users	Married	All women
<b>Perception</b>			
Family planning is important	98.4 (189)	95.9 (210)	96.9 (312) <sup>a</sup>
Felt comfortable with contraceptives	76.4 (149)	56.7 (127)	52.4 (174)
Consider contraceptives effective	85.6 (167)	63.8 (143)	59.0 (196)
Consider contraceptives safe	75.3 (143)	67.0 (140)	66.9 (204) <sup>b</sup>
Both partners should decide use of contraceptive	73.4 (138)	78.8 (167)	78.1 (242) <sup>c</sup>
<b>Reasons for using contraceptives</b>			
Birth spacing	57.5 (112)		
Delay births	41.7 (81)		
Prevent infections	20.6 (41)		

<sup>a</sup> n=322; <sup>b</sup> n=305; <sup>c</sup> n=310



**Figure 1:** Ghanaian women's perception of barriers to family planning use<sup>a</sup>.

<sup>a</sup> Multiple responses permitted;

**Note:** Service-related barriers include delay at facility, age and gender of provider.

The main side effects indicated were those affecting the menstrual period (82 percent) and problems with the heart (12 percent). Another 8 percent indicated that use of contraceptives could lead to barrenness. Other reasons that were indicated by respondents as barriers to contraceptive use include fear of contraceptive failure, nonsupportive influence of male partners, and religious beliefs.

While most users (73 percent) indicated that their decision to use contraception was influenced by their partner, about 21 percent indicated a limiting influence by their partner. Some women indicated a family member (35 percent) or a

neighbor (13 percent) as a source of influence to use family planning. Others were influenced not to use contraception by their partners (48 percent) or friends/family (40 percent), as indicated in Figure 1.

#### *Ever Use of Contraceptives*

Most respondents (67%) reported ever use of any family planning method as indicated in Table 2. With the exception of the male condom, injectables and oral contraceptive, ever use prevalence of any other method was very low (less than 10%), with similar rates between all women and married women. The

**Table 4:** Characteristics related to ever use of family planning among Ghanaian women, 15-49 yr (n=332)

Characteristic		Crude OR	p-value	Adjusted OR	p-value
Marital status	Not married (reference)	1.00		1.00	
	Currently married	1.80	0.01	2.14	0.01
Occupation	Employed (reference)	1.00		1.00	
	Trainee	0.42	0.03	0.75	0.53
	Not employed	1.02	0.96	1.07	0.86
Education	Secondary (reference)	1.00		1.00	
	None	1.84	0.87	2.13	0.06
	Basic	1.36	0.20	1.38	0.27
Age-group	15-19 (reference)	1.00		1.00	
	20-29	2.37	0.71	1.75	0.31
	30-39	2.20	0.11	0.99	0.99
	40-49	3.60	0.02	1.87	0.34
Religion	Other (reference)	1.00		1.00	
	Christian	1.33	0.53	1.77	0.25

OR=odds ratio

prevalence of ever use of any contraceptive method was 72% among married women compared to 67% among all women. Ever use of a modern contraceptive was 60% and 65% among all women and married women, respectively.

#### *Factors Related to Ever Use of Modern Family Planning*

In the bivariate analysis, marital status, age group, and occupation were identified as factors of ever use of any modern FP method (Table 4). Married women were significantly more likely than unmarried women to have ever used contraception (OR=1.8, p=0.01), as were women in the oldest age group, compared with teenagers (OR=3.6, p=0.02). In a multivariate model that also controlled for education and religion, being married remained significantly associated with ever use of a modern contraceptive method, with married women being more than twice as likely to have ever used modern contraception compared with unmarried women.

## **Discussion**

With the current low rates of utilization of family planning in West Africa<sup>2</sup>, understanding the characteristics of women and men with unmet need for family planning will be an essential part of a broad strategy to improve utilization at the community and national levels. In the Ga East district, we observed an almost universal awareness of at least one modern family planning method. This

finding was expected based on earlier studies<sup>5, 6</sup>. With the exception of Norplant, the top five modern methods known to the respondents were the same ones reported by the 2008 DHS. Our results on awareness, therefore, mirror the recent DHS data on level of ranked awareness. A slight departure from the DHS, however, is that in our data, indication of awareness was greater than 50 percent among only four modern methods (male condom, injectables, the pill, and female condom), as indicated in Table 2. This finding was not surprising because in most family planning facilities in Ghana, the commonly offered methods are the combined estrogen/progesterone pill, male condoms, and injectables.<sup>7</sup>

Although most women considered family planning an important health action, they lacked motivation to use it because of their perceptions of barriers. Almost half of the respondents considered family planning ineffective, and about one-third indicated safety concerns. Also, many women indicated that modern contraceptives were either uncomfortable to use (30 percent) or had side effects (65 percent). In addition to these perceptions, some women reported that their husbands prevented them from using modern family planning. These perceptions that can limit FP use are not unique to our study population and have been reported elsewhere.<sup>8-10</sup> In our sample, most women who had used a modern method reported a joint decision on family planning with their spouse. While many studies report a limiting influence of male spouses on female partner use of family

planning,<sup>11-12</sup> other studies report a positive influence.<sup>12-13</sup>

A majority of women (81 percent) thought that male partners should be involved in the decision to use modern family planning methods. This estimate includes women who thought both partners (78.1 percent) or only males (3.2 percent) should make the decision.

This opinion reflects the dominant role that males play in household decision making. It was not surprising, therefore, that most women who had used family planning were influenced by their male partners to do so. The role of men in influencing family planning had earlier been reported in the mid-1970s Danfa project (in the Ga East district), in which men were reported to exert influence on family planning use.<sup>12</sup> However, the health services are currently not set up to be male-friendly. Most services are directed at women and children and provide only limited opportunity for men to learn about and get involved in the process of family planning. Restructuring services to include men could greatly expand utilization by both men and women. Lessons from door-to-door family planning services in Bangladesh show that educating men about family planning can enhance their capacity to make informed choices that can have beneficial outcomes for their female partners as well.<sup>14</sup>

Despite these perceptions, most women reported ever using a modern family planning method. The common methods ever used were the male condom, injectables, and the pill. The level of use was consistent with reported ever use in the greater Accra region by the 2008 DHS. Even with this low level of contraceptive prevalence, Ghana remains one of the countries with higher contraceptive prevalence in the West African subregion.<sup>2</sup>

Our results also highlight a shared challenge in most West African countries where there is high awareness of family planning but low utilization. But more importantly, our study found that awareness of the most effective contraceptive methods is low. It is also apparent from these results and from those of an earlier study<sup>7</sup> that health service barriers constitute an important challenge that must be addressed. Innovative methods that improve service

quality, communicate more effectively to limit entrenchment of inappropriate perception, and make options available to women may be necessary.

## References

1. Westoff, Charles F. Unmet Need at the End of the Century. DHS Comparative Reports No. 1. Calverton, Maryland: ORC Macro. 2001.
2. Policy Project. Perspectives on unmet need for family planning in West Africa: Ghana. Policy project briefing paper. Conference on repositioning family planning in West Africa, 15-18 February 2005, Accra, Ghana.
3. Population Reference Bureau. 2008 World Population Datasheet. Washington DC. 2008.
4. Shane K, Mishra V, Arnold F, Abderrahim N. Contraceptive trends in developing countries. DHS comparative reports 2007;16. Calverton, Maryland, USA: Macro International Inc.
5. Ghana Statistical Service (GSS), Noguchi Memorial Institute for Medical Research (NMIMR), ORC Macro. Ghana demographic and health survey 2003. Calverton, Maryland: GSS, NMIMR, ORC Macro, 2004.
6. Ghana Statistical Service (GSS), Ghana Health Service (GHS), ICF Macro. Ghana demographic and health survey 2008. Accra, Ghana: GSS, GHS, ICF Macro, 2009.
7. Hong R, Fronczak N, Chinbuah A, Miller R. Ghana trend analysis for family planning services, 1993, 1996, and 2002. Calverton, Maryland, USA: ORC Macro, 2005.
8. Omokhodion FO, Onadeko MO, Balogun OO. Contraceptive use among hairdressers in South-west Nigeria. J Obstet Gynaecol. 2007;27(6):612-4.
9. Ikechebelu JI, Joe-Ikechebelu NN, Obiajulu FN. Knowledge, attitude and practice of family planning among Igbo women of south-eastern Nigeria. J Obstet Gynaecol. 2005; 25(8):792-5.
10. Adeleye A, Akoria OA, Shuaib ZO, Ogholoh OD. Barriers and knowledge of benefits regarding family planning methods among women attending antenatal clinics in a southern Nigerian community. Asian J Med. Sci 2010;2(4):190-194.
11. Ismail S. Men's knowledge, attitude and practices of family planning in north Gondar. Ethiop Med J 1998; 36(4):261-71.
12. Lamptey P, Nicholas DD, Ofosu-Amaah S, Lourie IM. An evaluation of male contraceptive acceptance in rural Ghana. Stud Fam Plann 1978; 9(8):222-6.
13. Mwageni EA, Ankomah A, Powell RA. Attitudes of men towards family planning in Mbeya region, Tanzania: a rural-urban comparison of qualitative data. J Biosoc Sci 1998;30(3):381-92.
14. Clark J, Yount KM, Rochat R. Men's involvement in family planning in rural Bangladesh. J Biosoc Sci 2008;40(6):815-40.