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Unmet Need for Family Planning in Ghana: Trends and Determinants

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ABSTRACT

Despite the fall in fertility, unmet need for family planning in Ghana has declined only modestly from 50 percent in 1988 to 42 percent in 2008. The relative contribution to unmet need of lack of access to methods has diminished but attitudinal resistance has grown. In 2008, 45 percent of women with unmet need had no apparent problems of access or attitude, a third had access but an unfavourable attitude and 23 percent had no access. The mention of health concerns as a reason for non-use has increased substantially since 1988 and is now the dominant reason. In recent surveys, the second most commonly mentioned reason was infrequent sex. An enduring resistance to hormonal methods, much of it based on experience of side effects during prior episodes of use, may lead many Ghanaian women, particularly in urban areas, to use periodic abstinence or reduced coital frequency as an alternative means of reducing pregnancy-risk.

(153 words)

INTRODUCTION

The prime objective of family planning programmes is to reduce unmet need for contraception, which is the major origin of unintended pregnancies. According to the Ghana Demographic and Health Survey (GDHS) 2008, a third of women of reproductive age reported unmet need for family planning. Little has changed in the level of unmet need since the early 1990s. Any advances in our understanding of the causes of unmet need could have profound implications for programmes, not only in Ghana but elsewhere in West Africa. Fertility transition in Ghana is more advanced than in neighbouring countries and thus any new insights into the changing nature of unmet need in this country may have implications for others.

The main aim of this project is to establish the relative importance of lack of access and attitudinal resistance towards use of family planning in accounting for unmet need in the past 20 years and for variations in 2008 among different population strata in Ghana. The results may be useful for policy makers in deciding the priority that should be given to behaviour change communication or improved access/information for different socio-economic and geographic strata and also helpful to interventions to reduce health concerns and fear of side effects, such as provision of a broader method mix and better counselling. This paper draws on a detailed analysis of the 2008 survey (Machiyama and Cleland 2013).

DATA AND METHODS

Data

DHS data collected in 1988, 1993, 1998, 2003 and 2008 were used for the analysis. Women who either want no more children or to postpone childbearing for the next two years but are not using any method of contraception are regarded as having an unmet need for family planning. A standard definition of unmet need was used, following the most recent 2012 DHS report on unmet need (Bradley et al. 2012). However, women who were pregnant, or still abstaining or amenorrhoeic after the most recent birth were excluded because they were not exposed to the risk of conception at the time of the survey. Single women were also excluded because their profile of method-use is very different from that of married women and thus access cannot be measured in the same way for both groups. Specifically condoms are the main method for single women (17.6 percent) but rarely used by married couples (2.4 percent) (Ghana Statistical Service et al.

2009). Annex Table A.1 shows the numbers of women excluded from the analysis for these reasons in each of the five surveys.

Definition of access and attitude

The main analysis is to deconstruct unmet need for family planning and to establish the relative importance of lack of access and attitudinal resistance towards use of methods. Ansley Coale (1973) famously identified three preconditions for sustained fertility decline: fertility regulation must be within the calculus of conscious choice, effective means must be available and reduced fertility must be perceived as advantageous. In a modification by Lesthaeghe and Vanderhoeft (2001) fertility decline depends on sufficient numbers of couples who are ‘ready, willing and able’ to use contraception. Cleland et al.(2011) developed measures to assess the extent to which populations possess these three preconditions for use and to measure trends. We extended and adapted the approach used in their investigation of progress in family planning need, access and attitude in Africa. That study developed a novel measure of physical access: knowledge of the two most widely used modern methods in sub-Saharan Africa, i.e. pills and injectables, **and** knowledge of a supply source of any method.

This measure of access is not ideal for several reasons. First knowledge of methods may be superficial and/or include misinformation. Second, the restriction to pills and injectables is obviously a partial measure of knowledge of contraceptive methods but is justified by the fact that they account for two-thirds of all modern method use by married women in Ghana; moreover, among married non-users who intend to use in the future, only a minority of 14 percent mention long-acting alternatives, such as sterilisation, IUDs or implants, as their preferred method, according to the 2008 GDHS. Third, knowledge of a supply source does not necessarily mean a source of the dominant hormonal methods but questions on method-specific sources were not asked since the 1993 GDHS. Last, awareness of a source tells us nothing about travelling time, distance or cost though the importance of these factors is uncertain (Tsui and Ochoa 1992). Nevertheless, awareness of the two dominant methods and where to obtain contraceptive supplies captures the two most fundamental components of access.

The 2011 study by Cleland et al. also used answers to questions on approval of family planning as the measure of favourable attitude to family planning but these questions were

omitted from the most recent round of DHSs. Preliminary analysis showed that a woman's approval was strongly associated with her intention to use in the future. In the 2003 GDHS, 61 percent of women who approved of family planning had an intention to use in the future compared with only 10.5 percent of those who disapproved. Clearly approval and intention are not identical, no doubt in part because intention implies anticipation of future need whereas approval does not. But, as 96 percent of those who intend to use approved of family planning, it seems valid to interpret intention as an indicator of broader attitudinal acceptance for the purposes of this paper.

Based on these two measures, we identified whether the women having unmet need for family planning had access to, and attitudinal acceptance of, contraception. We divided the study population of exposed married women into seven groups: (a) unmet need: has access and attitude; (b) unmet need: has access, but not attitude; (c) unmet need: has attitude, but not access; (d) unmet need: has neither access nor attitude, (e) women using modern methods for spacing; (f) using modern methods for limiting; and (g) desire to have another child within two years. Categories (e) and (f) represent met need while category (g) denotes no need.

Traditional methods

Some analysts define traditional method users as having unmet need because of the high failure rate of most methods. Use of such methods is relatively common in Ghana. According to the 2008 GDHS, 6.9 percent of all currently married women were using traditional methods, mainly periodic abstinence and use was higher among urban, educated and wealthier couples than others. We examined the correlates of use of traditional or folk methods by logistic regression which confirmed that women with secondary schooling had 2.5 times the odds of using a traditional method than women with no schooling (Machiyyama and Cleland 2013). Clearly, resort to periodic abstinence largely reflects an explicit preference rather than lack of access to more effective modern methods, for reasons that may be similar to those documented in Cameroon. Cameroonian women may prefer periodic abstinence as it conforms to the local norm of modernity and self-discipline (Johnson-Hanks 2002). Furthermore, the question on knowledge of source of family planning was not asked of women who were using a traditional method. For these two reasons, traditional method users were excluded from the analysis.

Population strata

Variations in types of unmet need in 2008 were assessed for geographic and selected socio-economic population strata and by reproductive status (postpartum status and past experiences of a modern method).

Regions were grouped into four based on natural geographical belts, namely Greater Accra, the Southern, Middle and Northern belts. Greater Accra is part of the Southern belt but it was separated because it is distinct from the other parts of the Southern belt in terms of culture and socio-economic level.

Analysis

The analysis comprises bivariate descriptive analyses and logistic regression. Sample weights were used. All analyses were performed with Stata version 12.

RESULTS

Trends in unmet need

Figure 1 presents unmet need, modern method use and fertility desire in 1988, 1993, 1998, 2003 and 2008. The most pronounced changes in the past 20 years are an increase in use of modern method and a decrease in the proportion of women who wanted to have a child within two years. Modern contraceptive use among exposed women rose from 13 percent in 1988 to 37 percent in 2003, though it declined slightly to 32 percent in 2008. Throughout the period, about half of users wanted no more children. The percentage of women who wanted to have another child within two years fell sharply between 1988 and 1993 but changed little since then and actually rose slightly between 2003 and 2008. The level of unmet need declined from 51 percent to 43 percent. This relatively small change is partly attributable to an increase in need for family planning.

<Figure 1 around here>

Among those having unmet need for family planning in 2008, 45 percent were classified as having access and a positive attitude, a third had access but a negative attitude, and 23 percent

were defined as lacking access (Figure 2). Lack of access has fallen dramatically from 53 percent in 1988. About half of women without access had a favourable attitude and this proportion has remained unchanged over the 20 year period. In contrast, the proportion of women with access but without favourable attitude to family planning increased steadily and doubled between 1998 and 2008.

<Figure 2 around here>

Differentials in unmet need in 2008

Inequalities in unmet need across key population and geographical strata were substantial in 2008. Figure 3 presents components of unmet need according to access and attitude by geographical area, level of mother's education, postpartum status and prior experience of use of a modern method.

Regional differences were pronounced. Unmet need was lowest in Greater Accra (31 percent), highest in the Southern belt (Western, Central and Volta regions) (51 percent) and intermediate at 42 percent in the Middle and Northern belts (see Figure 3). Noticeably, the percentage of women without access or favourable attitude to family planning in the Southern belt was much higher than elsewhere, while the levels of the other types of unmet need were similar. The high level of unmet need in the Southern belt stems in part from the fact that fewer women (18 percent) wanted another child soon (and thus had no need) than in the other three belts where close to 30 percent desired a child within two years (Machiyama and Cleland 2013). Lack of access appears to be more problematic in the Southern and Northern belts than in the Middle belt or Greater Accra.

<Figure 3 around here>

Among the married exposed women in Ghana, 24 percent had received no schooling, 23 percent had primary schooling, 39 percent had gone to middle or junior secondary school (JSS) and 13 percent had secondary school or senior secondary school (SSS) or higher education. There is a clear gradient in level of unmet need by education from 53 percent in the no schooling group to 31 percent among women with secondary or higher schooling (see Figure 3). Lack of

access accounts for more of the unmet need in less educated than the better educated groups. Use of a modern method is markedly lower among women with no schooling than among others but differs little between middle, JSS and SSS categories. The reason for the gradient in unmet need in these three groups is that desire to have a child within two years increases with education (Machiyama and Cleland 2013). Multinomial logistic regression indicated that the likely explanation is simply that well educated women tend to be younger and have smaller families than others.

Another group with high unmet need was women who had a birth within the past two years. Among these women, 60 percent reported unmet need compared with 38.5 percent among the women who had a birth two year or more ago. Over 50 percent of the postpartum women with unmet need had no apparent problems of access or attitude. The main reason for this contrast is that the postpartum women were much less likely to want another child within two years (6 percent) than those who had a birth two or more years ago (30 percent), yet differences between the two groups in current contraceptive use were negligible. Further analysis indicated that breastfeeding women with a recent birth differed little from women who had weaned their child in the level of current use and only a minor difference in unmet need (Machiyama and Cleland 2013). Among women whose most recent birth was two years or more ago, the minority still breastfeeding had higher unmet need than others.

<Figure 3 around here>

Of all 549 exposed women with unmet need, 50 percent had earlier used a modern method and, among these, 74 percent had used pills and/or injectables (Machiyama and Cleland 2013). Thus about one-third of women in Ghana with unmet need had prior experience of one or both of the dominant hormonal methods. As shown in Figure 3, 65 percent of the women who had never used a modern method had unmet need; of these, 35 percent had no access and 50 percent had no intention to use family planning in the future. Among the group who had prior experience of modern contraception, 32 percent had unmet need. Not surprisingly, very few were classified as lacking access but 40 percent had no intention to use in the future.

Among all 1294 exposed women, about two-thirds want another child sooner or later. Among spacers, 24 percent are current users compared with 45 percent among those wanting no

more children. Despite their higher use, limiters record much higher unmet need (55 percent) than spacers (36 percent) because over one-third of spacers want another child within two years and therefore have no need (Machiyama and Cleland 2013). But because desire to postpone or space is more common than desire to limit, spacers account for 55 percent of all unmet need.

We used multivariate logistic regression to assess adjusted associations between background factors and having unmet need versus being a modern method user (Table 1). Rather few significant effects at the 95 percent confidence level were found. Unmet need did not differ significantly by urban-rural residence, household wealth or by women's age or parity. The most important result concerns geographical areas. Compared with Greater Accra, unmet need was twice as high in the Southern belt and 1.7 times higher in the Middle belt. Women with no schooling had twice the odds of unmet need compared with women with some schooling but higher school attainment did not further diminish unmet need. Postpartum women had 1.5 times higher unmet need than others. Compared with Protestants, Catholic women were less likely to have unmet need.

<Table 1 around here>

We also used matched couple's data to assess the influence of husband's fertility preferences (results not shown). The preferences of husbands and wives were similar in 2008. Only 13 percent of wives wishing to have no more children or to postpone childbearing for at least two years were married to men who stated a wish to have a child within two years. Logistic regression with the same set of covariates as shown in Table 1 was used to assess the net effect of spousal disagreement on unmet need of women. The adjusted odds of unmet was 1.9 (CI 1.08-3.38) among women whose husbands wanted to have another child within two years compared with those whose partner do not want to have another soon.

Reasons for non-use of family planning

Table 2 shows trends of reasons for not using family planning. Multiple answers were allowed in 2003 and 2008, while women provided the main reason in the earlier surveys. The 1993 survey was excluded, as reasons for non-use were omitted from the questionnaire.

<Table 2 around here>

The most commonly mentioned reasons have changed. In 1988, a quarter of the women raised lack of knowledge, but only 5 percent of women mentioned this reason in the latest survey. The percentage of women who mentioned fear of side effects or health concerns increased from 14 percent to 43 percent in the past 20 years. The proportions of women who mentioned their own opposition increased substantially from two percent in 2003 to 14 percent in 2008. Neither opposition of spouses or religion are commonly mentioned. Infrequent sex is cited more commonly in the last two surveys than in earlier surveys and it is now the second most common reason.

Table 3 shows a comparison of the four categories of unmet need, defined in terms of access and attitude, with self-reported reasons in 2008. The reasons varied among four categories. Health concern was the most commonly cited reason across all four categories, but the levels were significantly different ($p = 0.014$). This reason was particularly common among women with access but a negative attitude (54 percent) and those with neither access nor attitude (44 percent). Among women with access and favourable attitude 24 percent also mentioned infrequent sex and 13 percent cited breastfeeding as a reason for non-use. Not surprisingly respondent's opposition was the second most commonly mentioned reason among women with unmet need without attitude, and lack of knowledge was mentioned more often among women without access. Inconsistencies between the four-fold classification of unmet need and self-reported reasons were also apparent. Even among women who intend to use in the future, personal opposition was cited as a reason by an appreciable proportion and only minorities of those classified as lacking access reported lack of knowledge or access as reasons for non-use.

<Table 3 around here>

Infrequent Sex

Infrequent sex was mentioned as a reason for non-use by 17 percent in 2008 but this figure rises to 25 percent among urban and better educated women (Machiyama and Cleland 2013). As a partial check on the validity of this response, answers to an independent question on recency of last sex were examined. Women citing infrequent sex were indeed much less likely than others to report sex in the preceding four weeks: 33 percent versus 71 percent (Machiyama and Cleland 2013).

To test the hypothesis that infrequent sex is used as an alternative to contraception, we examined the correlates of sexual abstinence in the preceding month by logistic regression (Table 4). Residential status was a strong predictor of not having sex in the past four weeks. Woman reporting that their husband was staying elsewhere, in answer to the question “*is your husband/partner living with you now or is he staying elsewhere?*”, were four times more likely to have abstained from sex in the last 28 days than others. But after adjustment for residential status, contraceptive use, residence, parity, postpartum status and other factors, significant associations were found between desire for, and timing of, another child and abstinence. Compared with women who wanted the next child soon, those who wanted to delay for two years or more, or wanted no more were twice as likely to report abstinence. Moreover, non-users of contraception were twice as likely to report abstinence as users. Women in urban areas were also more likely to report abstinence than rural women, but educational differentials were not significant. These results provide some support for the view that reduced coital frequency is deployed in Ghana as an alternative to contraceptive methods.

<Table 4 around here>

DISCUSSION AND IMPLICATIONS

Ghana is the forerunner of fertility decline in West Africa with a recorded fall in the total fertility rate of over two births since the 1980s. This decline has occurred despite rather low levels of contraceptive use (Blanc and Grey 2002). Though fertility has continued its decline since 2000, albeit at a slower pace than in the late 1980s and early 1990s, reported use of modern methods

actually fell between 2003 and 2008, particularly among better educated and urban women (ICF Macro 2010). Indeed, reported use has fallen steeply and steadily among women with secondary or higher schooling since 1993, initially because a large decline in reported use of periodic abstinence, yet the total fertility rate in this stratum was estimated to have dropped from 2.5 to 2.1 between the early and mid-2000s. These trends suggest two tentative conclusions: an enduring resistance, or ambivalence, to modern methods of contraception, among urban, educated women; and resort to means of controlling reproduction that are not reported in national surveys. Can this investigation of unmet need provide any new insights?

The analysis of trends between 1988 and 2008 reveals a clear picture. Modern method use among exposed women rose from 13 percent to 32 percent. This pace of increase, about one percentage point per year, is impressive by comparison with other West African countries but modest in relation to the experience in Asia and Latin America (Castle et al. 2013). While use increased by 19 percent, unmet need fell by only eight percent, from 51 percent to 43 percent. The reason for this disparity stems from an increase in need over the 20 year period; the percent of women wanting to postpone childbearing for at least two years rose from 65 percent to 75 percent.

Ghana's family planning programme has achieved considerable success in widening access, as measured by knowledge of methods and supply sources; in 1988 over 50 percent of women with unmet need were defined as lacking access but this proportion had fallen to 23 percent by 2008. In contrast, acceptability of contraceptive methods has faltered. The falling contribution of lack of access to unmet need has been offset by a rising contribution from unfavourable attitudes, as indicated by a rejection of future use of contraception. Unfavourable attitudes stem primarily from fears about side-effects and damage to health rather than from moral or social objections. These fears have been increasingly reported as reasons by non-use, mentioned by 14 percent in 1988 but by over 40 percent in 2003 and 2008. In contrast, opposition from respondents or from partners or others is rarely mentioned, though an increase since 2003 is of concern, particularly in view of the apparent fall in contraceptive use itself.

Much of the paper was devoted to a detailed analysis of the most recent survey. Despite the decline in fertility, the 2008 DHS report reveals that nearly one-quarter of births were mistimed and 14 percent unwanted. In our analysis, confined to married women exposed to the risk of pregnancy at the time of the survey, 42.5 percent were classified as having unmet need for

family planning, 32 percent were using a modern method and 26 percent wanted to have another child within two years. This estimate of unmet need is very similar to that of unmet need for modern methods given in the DHS Analytical Report (42.6 percent) (Bradley et al. 2012).

Forty-five percent of women with unmet need had access and positive attitude in 2008. Thus neither factor provides a ready explanation for non-use in this group. Two-thirds of them had used a modern method in the past, predominantly pills or injectables (73 percent). The main reason for non-use was health concerns and fear of side effects, an answer given by 37 percent to the direct question on reasons for non-use. In view of the high level of past use of hormonal methods among these women, discontinuation because of side-effects experienced with hormonal methods is probably a major reason for unmet need. Fear of side effects or health concerns were just as likely to be cited as reasons for non-use among women who had never used a modern method suggesting that concerns about side effects spread from past users to non-users. Nevertheless, 70 percent of married women intending to use in the future specified a hormonal method as their preference, as shown in the 2008 GDHS report. This may also reflect the limited availability of non-hormonal method. For instance, IUD was available in only 36 percent of the facilities in the country according to the 2002 Ghana SPA (Ghana Statistical Service et al. 2003). Though the predictive validity of intentions is unknown, these findings suggest that unmet need may reflect a temporary abandonment of hormonal methods rather than a permanent rejection.

The next largest category of unmet need, accounting for about one-third of all unmet need in 2008, comprised women who had access but did not intend to use in the future. About half in this group were past users of a modern method. Health concerns and side effects were an even more dominant reason for non-use than for women who intended future use and were cited by 54 percent. For many Ghanaian women, it appears that past experience of side effects or health concerns derived from the experience of past users, perhaps inflated by rumour, act as a serious impediment to future use. About one-fifth of this group offered personal opposition as their reason. The opposition of partners or others was less commonly cited and the cursory analysis of matched couple data did not support the commonly held view that husbands are a barrier to contraceptive uptake by wives because they want larger families.

The third major category of unmet need, accounting for 23 percent of the total, were women who either were unaware of the two main methods or had no knowledge of a supply

source. This group is evenly divided between those who intend and do not intend to use in the future. Again, health concerns were the most common reason for non-use, followed by personal opposition and lack of knowledge.

Among all women with unmet need, infrequent sex was given as a reason by 17 percent, rising to about 25 percent among women in Greater Accra, those with secondary or higher schooling and those who had both access and a positive attitude. Comparison with an independent question on recency of last sex shows that only 33 percent of women giving this reason for non-use reported sex in the past month compared with 71 percent of the other women. Multivariate analysis of the correlates of recent sexual abstinence found that abstinence among those wishing to postpone the next birth for two years or more or wanting no more children was more than twice as common as that among those wanting another child soon. Similar results were found in the analysis by Blanc and Grey (2002). Abstinence was also much higher among non-users than users of modern contraception. These results suggest that abstinence, or reduced coital frequency, may be deployed as a partial substitute for contraception. A qualitative study into this intriguing finding should provide further insights.

Unmet need is also lowest in Greater Accra, the most developed area. These gradients appear at first glance to be consistent with the low fertility level of 2.5 in Greater Accra and 2.1 among women with secondary or higher schooling. However, interpretation needs to take account of traditional method use (excluded from this analysis), the apparent fall in contraceptive use documented in DHSs among the urban and better educated, and fertility preferences. Current use of a modern method by married exposed women differed little between those with primary, middle and secondary schooling. What accounts for the low level of unmet need among the best educated is that a higher proportion of women who want another child soon. Multivariate analysis showed no difference in desire for a child in the next two years between the three schooling categories after adjustment for parity and other confounders, suggesting that the high desire for another child simply reflects the fact that women with secondary or higher schooling are younger and have smaller families.

Traditional method use is common in Ghana. The 2008 DHS shows that 6.9 percent of currently married were using any type of traditional method and 4.7 percent using periodic abstinence. Reported use of periodic abstinence was twice the national average among the best educated stratum and was also higher in Greater Accra than elsewhere; this analysis confirms

these descriptive findings in the 2008 DHS report. Among currently married women in Greater Accra, the most popular method was periodic abstinence (9.3 percent), followed by condom (6.1 percent), pill (6.0 percent) and injectables (6.0 percent). The profile of current use in secondary schooled women is very similar. Moreover, 70 percent of users of periodic abstinence have correct knowledge of the fertile period.

The implications of these results are far reaching. It appears likely that many couples who belong to the most privileged strata of Ghanaian society distrust hormonal methods because of side effects and health concerns and are achieving small family sizes through methods that are seen to pose fewer threats to health. These methods include reduced coital frequency (facilitated by the fact that a large minority of urban women live in different households from their husbands), periodic abstinence, condoms and abortion which is thought to be common in Ghana. It is also likely that these methods are under-reported by women.

This interpretation is supported by a qualitative study in Accra of 26 men and 54 women, of whom about half were currently married (Osei 2009). Reported side effects of injectables mainly concerned menstrual disruption while those associated with the pill included headache, weakness and nausea. Some women persisted with use despite these side effects but many discontinued. The respondents reported a total of 156 pregnancies; 94 were unintended, of which 53 were aborted. Thus in this study 36 percent of all pregnancies were terminated.

Fertility transitions powered to a major extent by use of less effective methods, with abortion as a back-up, have been rare since highly effective methods became available in the 1960s, though Albania is an exception. Nevertheless it is possible that Ghana may follow this pathway. Better educated, wealthier, urban couples are typically in the vanguard of change and their behaviour acts as a powerful example to less privileged strata. A more likely scenario, however, is that different social strata will follow varying behavioural pathways to lower fertility, with a greater preference for less effective methods among elite groups. Ghana is not unique in this positive link between high status and traditional method choice. Both India and Iran, for instance, show a similar pattern (Erfani and Yuksel-Kaptanoglu 2012). Small family sizes can be achieved by ineffective methods but access to safe abortion is a critical consideration. Even if knowledge of the fertile period can be further improved, unintended pregnancies will be common. Ghana has liberal abortion laws but it is uncertain whether access to safe terminations is widespread.

Whether or not this speculation is correct, the finding that one-fifth of exposed married women with unmet need in 2008 lack even the basic components of access to modern methods should not be overlooked. This lack of access largely accounts for high unmet need among the disadvantaged, women with no schooling. It is also part of the explanation for high unmet need in the Southern belt; contraceptive use in this belt is no lower than in the Middle or Northern belts but need is greater because significantly fewer women want another child soon. Expansion of access and information is needed to meet the needs of the disadvantaged.

Unmet need was found to be higher among women who had a child within the two years prior to the survey. Fear of using a modern method while breastfeeding may be part of the explanation but surprisingly no difference in current use was found between women who had weaned their baby and those who were still suckling. The sole reason for high unmet need in postpartum women is that few want another child soon and thus need is high. A sharper focus on postpartum family planning services is called for.

Ghana is unusual in West Africa in that nearly half (45 percent) of unmet need in 2008 stems from non-use among women who want no more children rather than from who want to postpone childbearing. The need for limitation has been rising. The percent of all married women with three or four children who wish to cease further childbearing rose from 25 percent in 1988 to 48 percent in 1993 and further to 57 percent in 2008 (Westoff 2010). Their contraceptive needs are not well served by pills, injectables, condoms or traditional methods. Unfortunately, more appropriate long acting methods are rarely used. Uptake of IUDs and female sterilisation use has stagnated in the past 15 years (Gyapong et al. 2003, Osei et al. 2005). The study on IUD use (Osei et al. 2005) shows that the low use of IUD was attributable to fear of side effect, such as excessive bleeding and weight loss. The need for long acting methods is clear cut because nearly a half of unmet need in Ghana comprises women who want no more children. A strong case for a broader method-mix can be made.

In conclusion, this study of unmet need in Ghana has revealed an unusual situation in which many urban elite couples appear to be rejecting highly effective hormonal methods, primarily for health-related reasons. Instead they resort to various means of restricting coitus and abortion to achieve small family sizes. Attitudes to contraceptive use, which presumably are dominated by views on pills and injectables, are not improving and may even have become more hostile in recent years. Apart from the obvious need to popularise non-hormonal methods, the appropriate

strategic response is not clear. For instance, evidence that better counselling can improve toleration of side-effects is weak, though improved counselling tools are being developed.

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FIGURE 1: Unmet need, modern method use and fertility desire, 1988-2008, Ghana

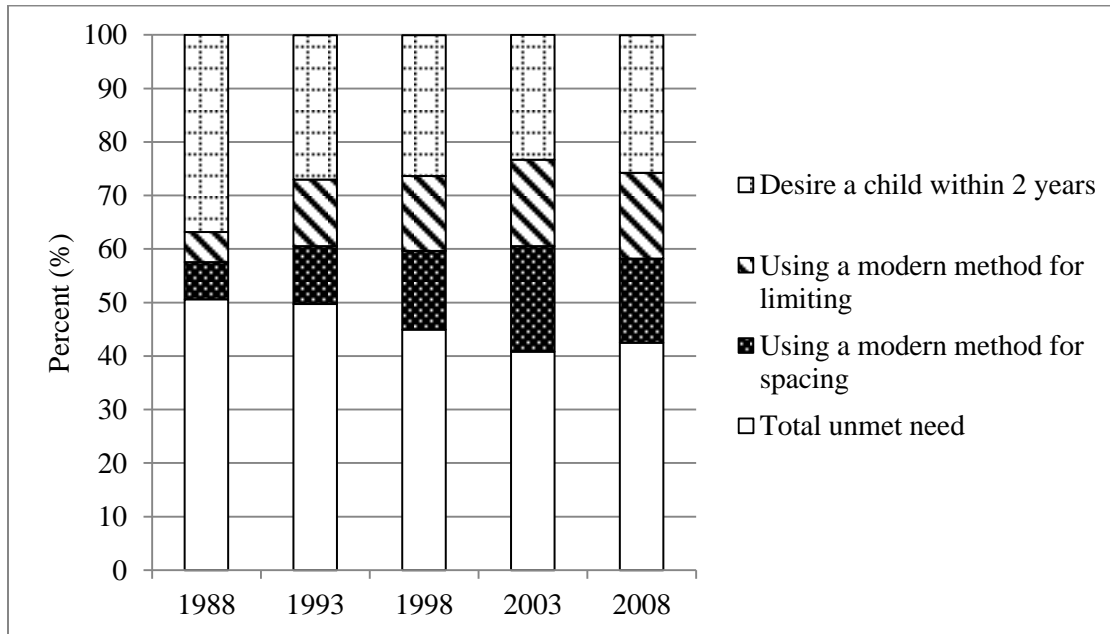


FIGURE 2: Unmet need for family planning, 1988-2008, Ghana

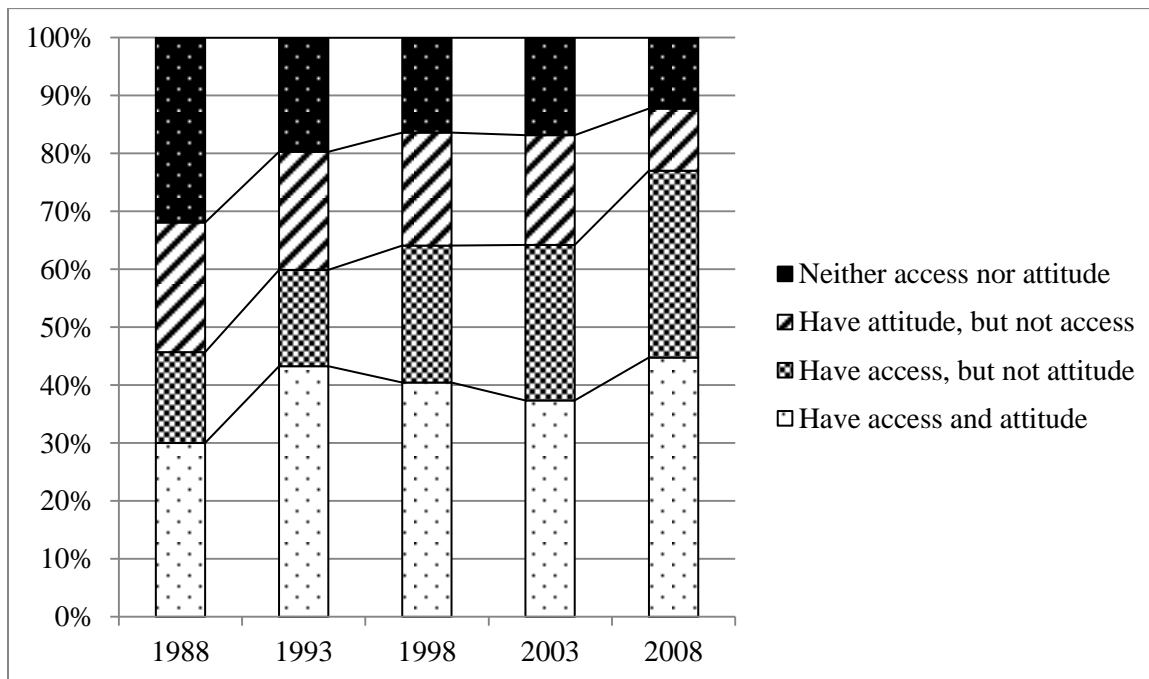


FIGURE 3: Unmet need by geographical area, mother's education, postpartum status and prior experience of use of modern method, 2008, Ghana

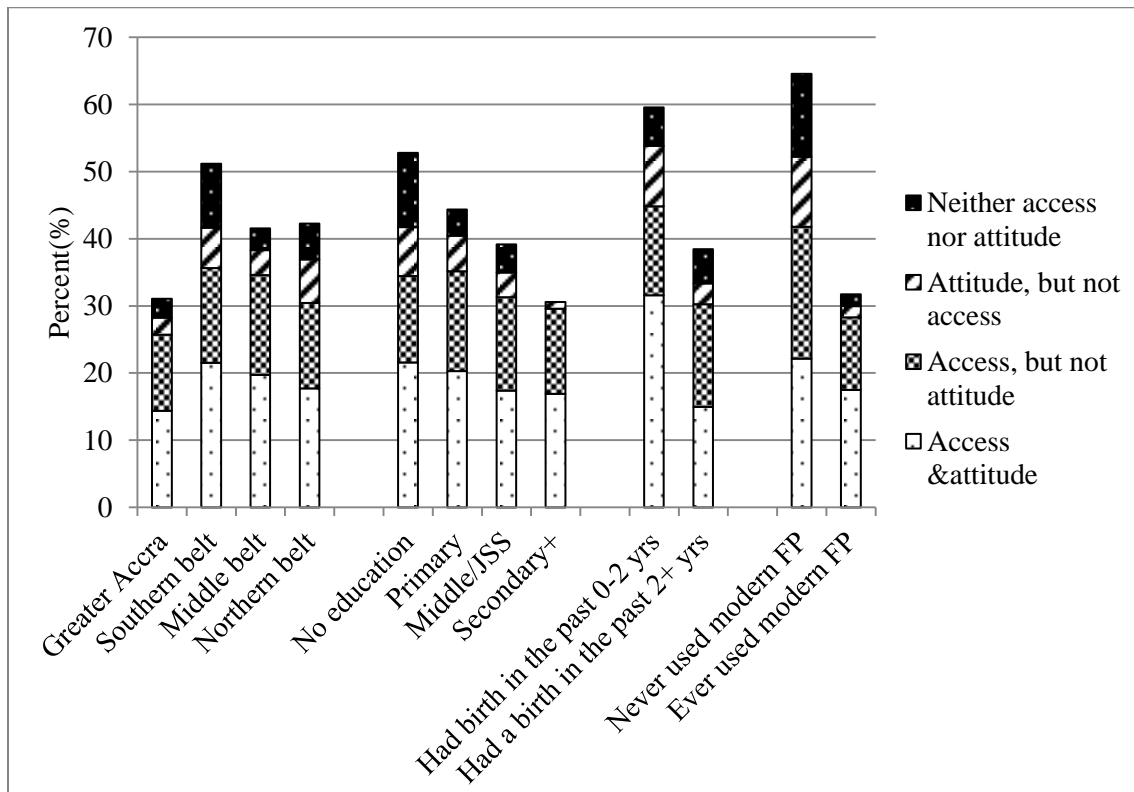


TABLE 1: Logistic regression: odds ratio of women having unmet need for family planning, 2008, Ghana

	Adjusted OR	95% CI		
Residence (ref. urban)				
Rural	0.81	0.54	1.21	
Area (ref. Greater Accra)				
Southern	2.01	1.23	3.31	**
Middle	1.70	1.04	2.77	*
Northern	1.27	0.65	2.49	
Wealth (ref. Middle)				
Poorest	1.30	0.66	2.55	
Poor	1.24	0.79	1.93	
Rich	0.90	0.58	1.38	
Richest	0.81	0.47	1.41	
Education (ref. no education)				
Primary	0.57	0.37	0.90	*
Middle/JSS	0.48	0.31	0.73	**
Secondary/SSS +	0.55	0.29	1.03	
Postpartum (ref. had a birth 2+ years ago)				
Had a birth <2 years ago	1.47	1.05	2.06	*
Parity (ref. 3-4 children)				
0-2 children	0.97	0.63	1.50	
5+ children	0.94	0.65	1.36	
Mother's age (ref.<30 years)				
30+ years old	1.01	0.65	1.55	
Religion (ref. Protestant)				
Catholic	0.65	0.42	0.99	*
Other Christian	1.28	0.79	2.07	
Moslem	1.22	0.72	2.04	
Traditional/spiritualist	1.32	0.59	2.92	
Other	0.41	0.19	0.89	*
Weighted N	960			

p < 0.05, ** p < 0.01,*** p < 0.001

TABLE 2: Reasons for not using family planning, 1988-2008, Ghana

	1988	1998	2003	2008
Respondent's opposition	3.5	7.9	2.3	14.1
Partner's/ others' opposition	6.1	6.6	2.7	4.5
Lack of knowledge	26.6	9.0	9.4	5.2
Access/cost	5.9	2.9	12.3	5.1
Health concerns/side effect/ interfere with body	13.6	34.6	43.8	42.7
Infrequent or no sex	10.9	14.0	18.1	16.6
Breastfeeding	6.1	3.3	7.6	7.3
Religion	3.5	5.2	2.0	0.8
Others/don't know	23.9	16.5	16.3	13.3
N	536	494	572	479
Missing	160	66	72	71

In 1988 and 1998, women reported only one reason. In 2003 and 2008, women were allowed to provide multiple reasons.

In 1998 66 women reported "wants more" or pregnant" as a reason for not using family planning were excluded.

TABLE 3: Reasons for non-use of family planning by type of unmet need, 2008, Ghana

Reasons	Unmet need for family planning				Total	p-value for χ^2 test
	Access & attitude	Access, but not attitude	Attitude, but not access	Neither access nor attitude		
Respondent's opposition	8.7	19.2	15.9	18.6	14.1	0.063
Partner's/ others' opposition	4.8	2.6	5.2	7.9	4.5	0.475
Lack of knowledge	4.6	0.9	14.4	11.4	5.2	0.002
Lack of access/cost	6.8	2.8	7.2	2.9	5.1	0.373
Health concerns/fear of side effect/interfere with body	36.6	53.8	32.4	44.2	42.7	0.014
Infrequent or no sex	23.5	11.8	9.4	10.2	16.6	0.034
Breastfeeding	12.5	2.4	4.0	3.3	7.3	0.001
Others/don't know	7.4	3.4	10.8	1.7	5.8	0.072
N	216	157	51	55	479	

Note: 71 women did not answer the questions. Women may provide multiple answers.

TABLE 4: Adjusted odds ratios for not having sex in the last 4 weeks versus having sex in the last 4 weeks, 2008, Ghana

		Adjusted OR	95% CI		
Fertility preference and preferred waiting time (ref. want a/another child soon, now)					
want no more child		2.04	1.26	3.30	**
undecided about having a/another child		1.66	0.83	3.29	
want a/another child	< 12 months	1.44	0.48	4.31	
	1 year	0.96	0.41	2.24	
	2 years	2.22	1.20	4.11	*
	>=3 years	1.85	1.16	2.97	*
	do not know about the timing or reported non-numeric answer	2.14	0.88	5.20	
Living arrangement (living with husband now)					
staying elsewhere		4.40	3.22	6.02	***
Using a modern method (ref. users)					
Non-user		2.13	1.54	2.94	***
Residence					
Rural		0.72	0.54	0.98	*
Education (ref. no education)					
Primary		0.95	0.64	1.41	
Middle/JSS		0.74	0.51	1.07	
Secondary/SSS+		0.77	0.45	1.34	
Parity (ref. 0-2 children)					
3 or 4 children		1.00	0.68	1.48	
5+ children		0.79	0.48	1.30	
Polygyny (ref. monogamous)					
have co-wives		0.88	0.58	1.33	
Postpartum (ref. no child/birth 2+ yrs ago)					
Had a birth in the past 2 yrs		1.07	0.75	1.53	
Age group (< 30 years old)					
30+ years old		1.18	0.80	1.74	
N		1281			

* p < 0.05, ** p < 0.01, *** p < 0.001

APPENDIX

TABLE A.1: Distribution of women, 1988-2008, Ghana

		1988		1993		1998		2003		2008	
		N	%	N	%	N	%	N	%	N	%
Currently married	Exposed to pregnancy risk at survey	1059	23.6	1194	26.2	1246	25.7	1576	27.7	1294	26.3
	Fecund & not postpartum abstaining, but data on knowledge of a supply source or intention for future FP use were not collected or missing*	153	3.4	239	5.2	213	4.4	177	3.1	163	3.3
	Fecund & postpartum abstaining	233	5.2	204	4.5	173	3.6	216	3.8	179	3.6
	Pregnant	420	9.4	357	7.8	374	7.7	389	6.8	326	6.6
	Amenorrhoeic	886	19.7	763	16.7	586	12.1	628	11.0	472	9.6
	Infecund, menopausal	405	9.0	447	9.8	539	11.1	563	9.9	442	9.0
Never/formerly married		1331	29.7	1358	29.8	1712	35.3	2142	37.6	2040	41.5
Missing (marital status)		1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total		4488	100	4562	100	4843	100	5691	100	4916	100.0