Fertility Preferences and Contraceptive Use among Couples in Sub-Saharan Africa

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Introduction

The Sub-Saharan African fertility regime continues to defile theory and to puzzle demographers and well as other stakeholders on the issue of population levels and trends. While fertility has declined very substantially in several countries in Latin American and Asia, two of the three large developing regions, it remains high in Sub-Saharan Africa. The hope of imminent decline in fertility in the region of Sub-Saharan Africa raised by substantial declines in fertility in countries like Zimbabwe, Kenya and Ghana was soon dashed by the stall in that trend at still high level of fertility that is now clearly evident in these countries. While the experience of stalled fertility at an above replacement level is not only an African phenomenon, what seems unique to the region in this experience is that it is taking place a much higher levels of fertility than is the case in the other regions. For a 2006 study shows that the following countries - Bangladesh, Colombia, Dominican Republic, Ghana, Kenya, Peru, and Turkey – experienced fertility decline to fewer than five births per woman in the early or mid-1990s, before stalling.[1] However, as noted by that study, the level of stalling varied, ranging from 4.7 births per woman in Kenya to 2.5 births per woman in Turkey. In other countries outside of the Sub-Saharan region, including Bangladesh, Dominical Republic, Egypt and Indonesia, the fertility stalled at about 3 children per woman. On the other hand, it occurred at the level of more than 4 children per woman in Ghana and Kenya and about 4 in Zimbabwe[2]

Despite the generally high fertility and lack of significant progress in the pace of fertility transition in Sub-Saharan Africa, evidence shows that demand for smaller family is increasing in the region and many couples are having more children than they want. This is evident by the high levels of unmet need and unplanned pregnancies and births. For example, among the developing regions, only in Sub-Saharan Africa is the proportion of married women with unmet need higher

than one in five. Similarly, while fairly substantial declines are observed in unmet need between the mid 1990 and early 2000s in Latin America (17% versus 12%), North Africa and West Asia (14% versus 10%) and South and Southeast Asia (18%-11%), there is little or no decline in unmet need in Sub-Saharan Africa (26% versus 24%).[3] The proportion of married women who want to stop childbearing has increased substantially in many of the Sub-Saharan countries. For example, the proportion from 23% in 1988 to 36% in 1998 in Ghana and from 14% in 1991 to 36% in 2007 in Zambia. Similarly, in Cameroon, this proportion increased from 14% in 1991 to 21% in 2004 and in Uganda it increases from 19% in 1988 to 41% in 2006. However, because of the low use of contraception in many of these countries, the number of children couples are having is higher than the number they want to have.

What is the reason for this lack of responsiveness of actual fertility to the seemly declining desires for large family in the region? A number of reasons have been suggested, including the impact of HIV, especially as it affects child mortality. In other words, although couples may desire to have fewer children, the fear that they may lose some of the children may create some levels of ambivalence in their effort to pursue the goal of smaller family. Second, it has been argued that there is shortage of contraceptive methods in some countries due to lack of adequate funding for family planning services. This line of argument suggests that the reason for the high unmet need is lack of access to effective methods. Women themselves often downplay the role of access in explaining unmet need. Another reason, however, if the underlying reason is lack of access to a wide variety of method mix that give women the opportunity to discover a method that best suits them, then this may be a major reason for the high unmet need in some of the countries.

Another reason is opposition to contraception, both personal and spousal. Although few women often give this as a reason for non-use, some providers have argued that they see it more often than women tend to admit. Previous studies have also shown that real or perceive

knowledge of husband's opposition to family planning may prevent a woman from using a method even when she wants to stop childbearing.[4] Perhaps, the issue of husband's opposition needs further investigation. It has been shown in earlier studies that men tend to desire more children in Sub-Saharan Africa than their women counterparts. A 1999 study attempted to examine the role of this gap in the preferences of women and men on unmet need by taking into account the husband's preference is estimating unmet need.[5] The study shows that when the husband's preference is accounted for the level of unmet need drops substantially from what it is when only the wife's preference is taken into consideration. In other words, women may be underreporting the extent of partner's opposition (actual or perceived) to family planning. Some men oppose use of contraception because of fear of side effect, which some believe many include infertility. The high proportion of women who give fear of side effect: as a reason for not using a method may include those women whose husbands' oppose contraceptive use on the ground of perceived side effect. There is need for more in-depth study of the reasons for unmet need in order to get beyond the surface of the reasons often given in surveys and to have better understanding of the factors underlying them.

In studies of developing countries, greater attention is now being paid to including men in fertility and family planning research and in policy and program formulation. The reasons for this new interest in men are not hard to find: First, new information that has become available from surveys over the past decade suggests that men and women do not necessarily have similar fertility attitudes and goals.[6] Second, the scope of fertility and family planning research has expanded to include more broad coverage of reproductive health.[7] While it is true that it is women who bear children and most modern contraceptive use has been of female methods, there is always a man involved in the conception of a child, and childrearing impacts on men's lives too. This impact can be felt financially, if men accept the responsibility of supporting their children, and in a range of other ways, including the health and well-being of their wife and children. Often, the social status of

a man is also affected by fathering a child. These points are generally valid, though women bear a greater burden of childrearing, and they argue for taking men into consideration in efforts to understand fertility decision making.[8]

The male partner may also play an important role in decision-making regarding contraceptive use and the timing and number of births the couple will have. In some countries or among some social groups, the influence of a male partner may be greater than that of his spouse.[9] In Ghana, one study has found that the wife's attitude to contraception is strongly influenced by her husband's attitudes and background characteristics, especially education, but the converse is not true.[10]

On the other hand, the perception that because men have a stronger power base (economic, in their control of assets; social, in their accepted status as head of household; and they are older) they will necessarily have more influence on reproductive decisions may be an exaggeration. While it is true that men tend to have economic and social advantage over women both in the household and the community in many developing countries, evidence suggests that such advantage may not systematically translate into men having a greater influence over the couple's reproductive decision-making. The actual situation is likely to depend on other factors and to vary over time and space. For instance, in a study among the Yoruba of Nigeria, it was shown that the fertility desires of both marriage partners are important predictors of the couple's fertility. However, the relative importance of spouses' desires is associated with the number of living children. When the number is small, the husband's desire is dominant in predicting the couple's behavior. On the other hand, the wife's desire becomes more important during the later stage of childbearing.[11] In Taiwan, another study reported that when there is a disagreement between spouses over whether to have another child, the view of the wife tends to prevail. This issue needs further critical examination now that more data on men are available.[12]

With regard to program initiatives, efforts to promote family planning in developing

countries have often been criticized for their exclusion of men as program targets. The criticism is based in part on the belief that men are the locus of authority in many of these societies. If a family planning program is to be successful, it should aim to include men. The consequence of the female-only approach has been that some men have come to view family planning with suspicion, regarding it as a program aimed at undermining their authority in the family. For instance, it is typical of men in Nigeria to see contraception as a license for their wives to engage in extra-marital sexual relationship.[13] While men's attitudes to family planning are said to be generally positive, some studies show that men believe that they should be in control of whether and when the couple should use contraception.[14]

Failure to actively involve men in family planning programs can have serious implications. Even when women are educated and motivated to use contraception, they may fail to translate this into actual behavior because of opposition from husbands. A study in Sudan found that the decision not to use contraception is taken by men, and when a couple is contracepting it is the husband who provides the method.[15] It is in light of this that some researchers question the validity of the estimates of unmet need derived from information collected only from women.[16]

This paper examines the reproductive preferences and behavior of married men and their wives in 24 countries in Sub-Saharan Africa. It undertakes a comparative analysis of the fertility preferences of marital partners and their contraceptive behavior using recent data from the Demographic and Health Behavior (DHS). The focus of the study is to understand how women's reproductive aspirations compare with those of their husbands. To have a better understanding of these phenomena, we compare the responses of husbands with those of their wives in order to bring out the similarities and differences. For instance, it is important to know how similar or different they are in terms of family size goals, attitudes to contraception. In the case of disagreement about fertility desires, we attempt to identify whose desire carries the greater weight, if any, in terms of contraceptive use. The findings, especially with respect to the role of disagreement in fertility

desires in contraceptive use, are of program and policy relevance in that they can help to explain the high unmet need and the associated high fertility in the region.

Data Sources and Methods of Analysis

The data used for this study are from national surveys of men and women conducted by the Demographic and Health Surveys (DHS) between 2003 and 2007 in 24 countries of Sub-Saharan Africa. These data are valuable because they come from the only major series of cross-national surveys of reproductive behavior in developing countries that include both men and women. To obtain the couple data use in this study we combined data from the separate interviews of husbands and wives. The list of the countries included in this study and the size of the nationally representative samples of couples in the 24 countries are shown in Appendix Table 1.

The structure of the male questionnaire is quite similar to that of the female questionnaire, although the former is shorter. With the exception of the birth history, child health and anthropometry sections, which are absent in the male questionnaires, all other standard sections in the female questionnaire are also available in the male questionnaire. Men are asked questions about their background characteristics, fertility experiences, contraceptive knowledge and use, marriage and sexual behavior and reproductive preferences. In phase three of the DHS program, the fertility section includes detailed questions on number of children ever born and number of surviving and deceased children by sex. In some of the earlier surveys men were only asked, through a single question, to tell the number of own children or number of living children by sex. In the section on contraception, all modern and traditional methods are listed and any other (folkloric) methods mentioned are recorded. First, the respondent is asked whether he knows any method: this allows the respondent to spontaneously list methods that he knows. Subsequently, the interviewer reads a description of each method that was not mentioned and asks the respondent whether he knows any of these. The respondent is later asked if he has ever used each one of the methods that

he said he had heard of. Also, detailed questions are asked about current use of methods as well as intention to use among non-users.

In the section on fertility preferences male respondents are asked questions on a wide range of issues touching on fertility and contraception. These include questions about their ideal number of children (in some cases by sex), whether they intend to have any more children and, if so, the preferred timing of the births, and their own as well as their partners' (where applicable) attitudes toward family planning. As much as possible, particularly for the standard modules, the questions in the male questionnaire are worded the same way as in the female questionnaire. This article focuses on data from the sections on contraceptive knowledge and use and fertility preferences of both male and female surveys.

The data are limited to the extent that large-scale national surveys, like the DHS, usually involve the use of structured interviews that do not probe deeply into most topics and usually will not include open-ended questions. In some countries, even standard questions were not included because of preferences or concerns in those countries. These limitations restrict deeper coverage on some of the issues examined here. Furthermore, the lack of uniformity in the ages of male respondents leads to some bias in overall comparisons. Nevertheless, because of the rare nature of the DHS data, comparing results across the 18 countries is a worthwhile exercise that may help our understanding of reproductive preferences and decision-making among couples.

We adopt the DHS definition of a couple as consisting of a man and a woman who are legally married to each other or who are living together in a consensual or cohabiting union. In those countries, mostly in sub-Saharan Africa, where polygyny is widely practiced, this implies that the sample of couples includes cases in which a man has more than one wife. In that situation, for our analysis, the polygynous household is counted as having as many couples as the number of wives, and the information for the male spouse is the same for each of these couple units. However, a special problem arises for these couples. Most of the questions asked of husbands that relate to

their wives did not require a polygynous man to be wife-specific in answering the questions. Therefore, we do not know to which wife or wives such responses by a polygynous husband refer. Unfortunately, there is nothing that can be done to correct this problem. Thus, in cases where this point really matters, we either carry out the analysis by type of marriage or include monogamous couples only. We define a couple as polygynous or monogamous based on the response of the husband to the question about the number of wives that he has.

To examine the ideal number of children, knowledge of contraceptives and use of modern methods among couples, we constructed measures of these variables combining husbands' and wives' reporting. For instance, the measure of use of modern methods of family planning reported in columns 4 through 6 of Table 5 is a three-category variable based on information for both partners. It shows the proportions of couples in which only the husband reports use, both spouses report use, or only the wife reports use. Using this measure we are able to show the level of agreement between spouses with respect to use of modern methods of family planning. At the same time, this approach allows us to measure the use of modern methods separately for both husbands and wives.[*] Thus, while our analysis focuses primarily on within couple variations, we also take into account differences between husbands and wives.

The analysis of the effects of fertility intentions on contraceptive behavior of couples is restricted to fecund monogamous couples who are not currently pregnant. Polygynous couples are excluded because it is unknown which of the wives the husband has in mind in answering the question about fertility intentions. Couples are considered fecund if neither of the spouses declares himself/herself or their partner infecund. A couple is defined as using a modern method of family planning if the wife reports current use of any method. However, if the wife does not report use of a

[*] For husbands, it is the sum of the proportion of couples in which both spouses report use of modern methods (column 5) and the proportion of couples in which only the husband reports use of modern methods (column 4). Similarly, for wives, it is the sum of the proportion of couples in which both spouses report use of modern methods (column 5) and the proportion of couples in which only the wife reports use

method and the husband reports use of condom, the couple is also considered as using a modern method.[†] Two logistic regression models were estimated: the first shows the effects of fertility intentions on use of modern contraceptives without controlling for any other variable, while the second controls for the effects of age and education of spouses, residence (not available in Malawi) and number of living children. The results of both models were converted into predicted proportions (unadjusted and adjusted respectively). This approach is preferred to reporting the odds ratios because it affords a clear and easy comparison of the effects of joint fertility intentions on use of modern contraception before and after controlling for the effects of other variables.[17] [‡]

Results

Background Characteristics of Husbands and Wives

Column 1 of Table 2 shows the median age difference between husbands and wives.[§] In all

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of modern methods (column 6).

[†] We include the husband's report of condom use because women may under-report use of male methods, especially condom.

[‡] The procedure involves adding the constant to the parameter estimate for each of the four categories of joint fertility intentions and computing antilog. Using Ghana as example, to calculate the unadjusted proportions, we first run a logistic regression of use of modern method on joint fertility intentions with no control. Then we obtained the predicted logits for the four categories by adding the constant value (-1.50298) to the parameter estimates (0.679217, 0.3240538 and 0.2502274). The results, ordered to correspond to the categories in columns 2 through 5 of Table 5 are: -0.823765, -1.1789282, -1.2527546 and -1.502982. Taking the antilog of each of these numbers and dividing by 1 plus the antilog produces the reported results in Table 5. For instance, the 30.5% in column 2 is obtained as follows: EXP(-0.823765)/(1+EXP(-0.823765)) x 100 = 30.5. The weighted average of these predicted proportions, computed using the sample weights (22.1% in column 1) yields the same result as the overall proportion using modern methods of family planning obtained from a simple cross tabulation of joint fertility intentions by use of modern methods. The adjusted proportions are obtained, similarly, from the results of the logistic regression of use of modern methods on joint fertility intentions and all the control variables. But these proportions have been scaled to reproduce exactly the sample total so that the overall proportions of couples using contraception is the same for the unadjusted and adjusted numbers. This involves changing only the regression constant and is done by solving for a constant value that will produce the desired overall proportion.

[§] The information in this table is not repeated for men who have more than one wives in the sample,

countries the husband is older than the wife with the lowest median age difference of 3.0 in Namibia and the highest difference of 11.0 in Guinea. In general, the gap between the ages of husband and wife tends to be wider for countries in Western and Central Africa than for countries in the Eastern and Southern sub- region. In some settings, the difference in the ages of husband and wife has been found to be a determinant of whether or not the couple will have similar reproductive preferences.[18]

The practice of polygyny is still prevalent in Sub-Saharan Africa, although wide variations exist in the level of polygyny between countries in the region. It is more prevalent in western and central sub-regions where 8-40% of men and 10-47% of women reported that they were in a polygynous union. This is in sharp compared to eastern and southern Africa where 2-18% of men and 2-19% of women were polygynously married. The reason for the higher incidence of polygyny in western Africa includes the greater practice of the Islamic religion in that sub-region, particularly in countries such as Senegal, Burkina Faso and Niger. The difference in the prevalence of polygyny may account for the larger age gap between spouses observed for these countries, since women in more polygynous societies tend to marry at younger ages than their counterparts in less polygynous societies.[19]

In 22 of the 24 countries, the vast majority of the husbands were currently working, with at least 2 out of 3 husbands reportedly employed at the time of the survey (Table 1 column 4). Only in Rwanda and Lesotho is this proportion lower than 66% (58% in Rwanda and 44% in Lesotho). A substantial proportion of the wives were also working at the time of the survey, although the variation between countries is larger for wives than for husbands. At least 66% of wives were currently working in 12 out of the 24 countries (column 5). Much lower proportions of wives working (24-40%) are found in Ethiopia, Niger and Senegal. Generally, the proportion of women who were working is somewhat higher in western and central Africa than in the eastern and

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therefore, the number of cases are different for men and women.

southern parts.

Education is another widely acknowledged determinant of reproductive preferences and behavior. We examine this characteristic for husbands and wives using two indicators: percentage literate and years of schooling. The lowest literacy rate of 14% is found among husbands in Niger and Burkina Faso while the highest rate of 86% is among husbands in Zimbabwe (Table 1 column 6). The proportion of husbands who were able to read is 50% or more in almost half of the 24 countries. The level of literacy among wives is considerably lower than that of their husbands in every country. The proportion of wives who can read without difficulty ranges from 5% in Chad and Niger to 88% in Lesotho. Only in 8 countries, all from eastern and southern sub-regions, is this proportion is 50% or more. In 11 of the 24 countries, mostly those in western and central parts of the region, the proportions literate among husbands are at least two times those for wives. In terms of years of schooling, level of education is still unacceptably low n many Sub-Saharan countries. The lowest proportion of husbands with 7 or more years of schooling is found in Niger and Burkina Faso (8%) and the highest is in Zimbabwe (82%). In 15 of the 24 countries, less than 50% of husbands have less than 7 years of education. Wives tend to spend fewer years in school than their husbands in most of these countries. The proportion of wives with 7 or more years of education is less than 20% in 10 of the countries and exceeds 50% in only 6 countries, all of which are in eastern and southern Africa (column 9). Thus, educational attainment is lower in western and central Africa than in eastern and southern parts and among wives than their husbands.

Childbearing Aspirations and Actual Behavior

Unlike about a decade ago, we now know more about the childbearing preferences of men, and how it compares to those of women. A review of early studies suggests that married men do not seem to desire more children than their wives in developing countries.[20] Another study using DHS data, concluded that with the exception of some countries in West Africa, the family size

preferences of men and women are quite similar.[21] However, this conclusion was based on aggregate level results which may conceal disagreements at the level of couples. Now that we have data from several countries, there is need to further examine this issue. A recent study among 14 Sub-Saharan African countries with DHS data conducted between 1999 and 2004 found that both in terms of the ideal number of children and whether or not spouses want more children, husbands tend to be more pronatalist than their wives.[22] There is more to learn from it, especially at this time when fertility is stalling at high levels on the region. Is it the case that men desire similar number of children as their partners? If not, how large is the difference and has the gap increased, decreased or remained constant over time?

Desired number of children. One measure of reproductive preference that is commonly obtained from fertility surveys is the number of children that a respondent would like to have if he/she could choose. Columns 1 through 3 of Table 2 present evidence of differences in the number of children desired by matched pairs of husbands and wives.[**] It is clear from the results that husbands tend to want a larger family size than their wives in many of the countries represented in this study. The proportion of couples in which the husband desires more children more than his wife ranges from 25% in Rwanda to 64% in Guinea (column 1). This proportion is 40% or more in 20 of the 24 countries. In addition to Rwanda, the other countries where it is less than 40% are Madagascar, Malawi, and Tanzania. The corresponding estimate for wives ranges from 19% in Guinea to 42% in Rwanda, the only country where the proportion is 40% or more (column 2).

If we consider a situation in which husband and wife reported the same desired number of

[**] The DHS question from which the measure was derived asks nulliparous respondent: "If you could choose exactly the number of children you have in your whole life, how many would that be?" For those who already have at least one child the question was prefaced by: "If you could go back to the time you did not have any children ..." Responses that are not given in the form of a specific number, but that imply that whatever comes will be accepted (up to God; as many as Allah sends; etc) are assigned the value of 6 children for both husbands and wives.

children (i.e. where they are in agreement with respect to their ideal number of children, the results indicate that agreement is very low among couples in Sub-Saharan Africa. The proportion of couples in which spouses agree with respect to their desired number of children ranges from 15% in Chad to only 37% in Madagascar (column 3). The only other countries, all in eastern and southern sub-regions, where this proportion is 30% or higher are Kenya, Malawi, Rwanda and Lesotho.

On average, married men still want a large number of children in many of the 24 countries included in this study (Table 2 column 4). The mean number of children desired by husbands ranges from 3.7 in Swaziland to 13.8 in Chad. The mean desired number of children among husbands exceeds 5 in 18 of the 24 countries. Desired family size tends to be higher among husbands in Western and central African countries relative to their counterparts in the countries of Eastern and southern Africa. Among wives, the average number of children desired ranges from 2.7 in Swaziland to 8.8 in Chad (column 5). The average family size preferred by wives is more than 5.0 in 16 of the 24 countries.

These results support the claim that husbands tend to want larger families than their wives. If a difference in mean desired family size of one child or more is considered substantial, the contention that men want more children than women is clearly evident in western and central Africa (column 6). The countries in eastern and southern Africa that show a sign of gender differential based on this criterion are Ethiopia, Mozambique, Uganda, Namibia and Swaziland.

Fertility Intentions. Another prominent measure of reproductive preferences considered in this study is future fertility desire or fertility intentions, i.e. whether or not the respondent desires or intends to have a/nother child. Because it points to future behavior, the predictive validity of the measure is of great interest and potential utility. Both at the aggregate and individual (or couple) levels it has been found to be a robust predictor of subsequent contraceptive and fertility behavior.[23] In addition, the measure has become an indispensable ingredient in the estimation of unmet need

for family planning.[24]

Comparing husbands' and wives' responses on this issue among all couples using DHS data is somewhat problematic. To do this with little or no bias requires that we have specific responses from polygynous husbands about each of their wives. These are not available in these DHS data; rather the man was simply asked his future intentions. The implication for our study is that the lack of wife-specific responses is likely to understate the degree of agreement between spouses in polygynous unions. For example, if a man with two wives wants no more children, it is safe to assume that his response applies to both wives, therefore, the agreement or disagreement between him and any of the wives is not in question. On the other hand, if he wants more children, this may mean either of two things: he wants more with both wives or he wants more with one (probably the younger) wife. If he wants more with both wives, again the implied agreement or disagreement with the wives is real. But if he wants more children say with only the younger wife, more often the older wife too would want no more children, given that wives tend to want fewer children than their husbands. This agreement will be misconstrued as a disagreement due to the fact that the husband has only one response choice. Because of this problem, the following analysis of fertility intentions may overstate the amount of disagreement between spouses.

Columns 1 through 4 of Table 3 present the joint distribution of the fertility desires of husbands and wives.[††] Despite the possibility of bias in the direction of disagreement, the results show a high degree of agreement between husbands and wives about their fertility intentions (the sum of columns 2 and 4). The percentage of couples in which both spouses agree (either to want more or no more children) ranges from 72% in Lesotho to 91% in Niger. In general overall

[††] In both men and women surveys the question about the future fertility intentions is asked in DHS as follows: "Now, I have some questions about the future. Would you like to have a/another child or would you prefer not to have any (more) children?" For the purpose of the analysis presented in columns 5 through 8, we exclude all couples who declared themselves infecund. For the remaining couples, husbands or wives who were not certain about their fertility intentions were classified as wanting to have more children.

agreement tends to be higher among countries in western and central African compared to countries in eastern and southern parts of the region.

As noted above, agreement is of two types: it is either that both spouses want no more children (column 2) or both want more children (column 4). In all of the countries, with the exception of Namibia and Swaziland, agreement between husband and wife with respect to their fertility preferences is more of the second type - both want more children. Of all couples in agreement, the percentage that agreed to have more children ranges from 41% in Namibia to 98% in Niger.[‡‡] This supports the earlier finding that a high proportion of both husbands and wives want a large family in sub-Saharan Africa. Couples in the countries of western and central Africa tend to be more likely to agree to have more children than their counterparts in eastern and southern Africa. While the proportion of couples in agreement who agreed they want more children is 69-99% in western and central sub-regions, that same proportion is 41-88% in eastern and southern Africa. This sub-regional differential is not surprising since desired family size and actual fertility are generally lower in the later sub-regions than the former.

Since 100% agreement is not achieved by couples in any country considered in this study, it is clear that in all settings, some couples will experience and must manage disagreement on this issue. Two types of disagreement in spousal fertility intentions are discernible in Table 4. These are: the husband wants no more children but the wife wants more (column 1) and the wife wants no more children but the husband wants more (column 3). The country with the least disagreement is Niger where only 9% of couples are in disagreement while Swaziland recorded the highest proportion (32%) of couples with any form of disagreement.

With the exception of Malawi and Rwanda (where the numbers of couples in which the spouses disagree are about equal for both types of disagreement), the more prominent form of

[‡‡] This was derived by dividing column 4 by the sum of columns 2 and 4, and then multiply the result by 100.

disagreement about fertility intentions is of the second type, where the wife wants no more children, but the husband wants more. Of all couples experiencing disagreement, the proportion in which the wife wants no more children but the husband does ranges from 48% in Rwanda to 85% in Guinea. Apart from Rwanda, the only other country where the proportion is 50% or less is Malawi. This lends credence to the claim that men want more children than their wives. The obvious implication of disagreement about future fertility intentions relates to how it affects subsequent contraceptive use and fertility behavior. The relationship between the joint distribution of husband and wife fertility intentions and use of contraception will be examined later. In terms of desired family size as well as fertility intentions, therefore, many couples in Sub-Saharan Africa have different reproductive goals. Even when spouses agree, there are still potential areas of conflict. For instance, agreement to stop having children may not translate into agreement to use contraception. Also, agreement to have another child does not imply agreement about the timing of the next birth.

The final subject examined in Table 3 is the preferred timing of the next birth among couples who want more children. A relevant question here is: Among couples who agree to have more children, does the husband want the next child sooner than the wife? The evidence is mixed on this issue (columns 5 and 6). The proportion of couples who want more children in which husbands want a(nother) child sooner than wives ranges from 7% in Swaziland to 23% in Mozambique. Similarly, the proportion these couples in which wives want a(nother) child sooner than the husbands is as low as 8% in Ghana and as high as 20% in Namibia. Although husbands generally tend to want a(nother) child sooner than wives , there is little or no difference (less than 5 percentage points) between the two proportions in the vast majority of the countries. In 8 of the 24 countries, Guinea, Liberia, Mali, Nigeria, Senegal, Madagascar, Mozambique and Uganda, the difference between the two proportions is 5 percentage points or more in favor of the husbands. At least for these 8 countries, it can be concluded that husbands want the next child sooner than their spouses.

Contraceptive Knowledge and Behavior

Few studies have examined contraceptive knowledge and use among men, although the number is on the increase with increase attention to the role of men in fertility decision making. Some of these studies have documented knowledge and practice of family planning among married men and have indicated that a substantial proportion of them know at least one method. But in some countries only a small proportion of married men who know a method are using contraception. Some of these studies have also pointed to the rather unexpected finding that husbands are more likely to report higher use of methods of family planning than their wives.[25] An attempt to explain this finding identified a set of factors (multiple sexual partnership, differential reporting of use of the condom by husbands and wives, differences in perception of rhythm among marital partners, and the presence of adults during wives' interview) that may account for the difference.[26] It has also been suggested that this finding may be related to the type of method used (e.g. condom), the frequency of use and/or the reference period. Thus, a man who used the condom once with his wife last week may report current use of condom while the wife who might have forgotten about that one incident or recalls several acts of unprotected intercourse they have had since then may report that no method is being used.[27] In this section, we examine the contraceptive knowledge and practice of husbands and their wives in the 24 countries.

Knowledge of modern methods. Columns 1 through 3 of Table 4, present the joint distribution of husbands' and wives' knowledge of modern contraceptive methods. The results show that knowledge of modern methods of family planning is generally high in Sub-Saharan African countries, among both husbands and wives, but there are substantial variations by country. The proportion of husbands who know at least one modern methods of family planning ranges from 73% in Chad to 100% in Swaziland (sum of columns 1 and 2). Knowledge of modern method of

family planning is lower among husbands in Western and Central African countries compared with the countries in the Eastern and Southern parts of the region. Similarly, wives exhibit a high level of knowledge of modern methods of family planning in developing countries: between 49% in Chad and 100% in Swaziland know a modern method (sum of columns 2 and 3). In addition to Chad, where knowledge about modern methods of family planning is unacceptably low, the only other country where this proportion is below two-thirds is Niger (62%). The difference in the proportion who know a modern method is generally small within country. It is less than 5 percentage points in 16 of the 24 countries. With the exception of Mozambique, all of the countries where this difference is 5 percentage points or more are in Western and Central Africa.

Current use of modern contraception. Every respondent who reported knowing at least one method of family planning and is not currently pregnant is asked if he/she is currently using a method.[§§] If he/she is using more than one method, the interviewer is instructed to record the most effective of the methods mentioned. Columns 4 through 6 of Table 4 present the joint distribution of husbands' and wives' reports of current use of modern contraception. The results show large variations in the use of modern contraceptive across countries for both husbands (sum of columns 4 and 5) and wives (sum of columns 5 and 6). The percentage using a modern method among husbands is lowest in Chad (4%) and highest in Zimbabwe (69%). Among wives, the percentage ranges from 1% in Chad to 61% in Zimbabwe. Although there has been an improvement in contraceptive use in the region, use of modern methods remains low in much of sub-Saharan Africa. Only in four countries, Namibia, Swaziland, Zambia and Zimbabwe, all in Southern Africa, is this proportion 30% or more among husbands. Among wives, the proportion using modern methods is 30% or more in 6 countries, Kenya, Lesotho, Malawi, Namibia, Swaziland and Zimbabwe.

[§§] The DHS question asked of men and women to elicit information on current use of contraception is: "Are you doing something now or using any method with any partner to delay or avoid pregnancy?".

A comparison of the level of modern contraceptive use reported by husbands and wives in this study suggests that the differential reporting by sex is lower than commonly found in this earlier studies. Only in 6 of the 20 countries for which data exist are the reports of husbands and wives different by 5 percentage points or more. This means that husbands and wives are more or less in agreement with respect to their contraceptive use in about 2 out of 3 countries. However, as found in earlier studies when husbands and wives substantially disagree with respect to their use of modern contraception, it is often the case that husbands report more use of modern methods. Among the 6 countries where the reports of husbands are 5 percentage points or more different, husbands' reports are higher in 4 – Benin, Burkina Faso, Guinea and Zimbabwe – while the wives reports are higher in two – Lesotho and Namibia.

Depending on whose reporting is taken into account, the estimated level of use of modern contraception can vary, sometimes substantially. If we focus on cases where both spouses report current use, the level of use is considerably lower in many countries than if wives' reporting alone is considered. However, if we focus on cases where at least one spouse reports current use of a method, the level of modern contraceptive use is considerably higher than if only one spouse's reporting is taken into account. For instance in Ghana, current use of modern methods is reported by 19% of husbands and 17% of wives, while both spouses report use in 10% of the couples and at least one spouse reports use of modern methods in 27% of couples. Similarly, in Kenya, the level of current use is 33% among husbands, 40% among wives, 24% when both spouses report use and 49% when either spouse reports use. In Benin, the use of modern methods among couples when either spouse reports use is more than quadruple the level when both spouses report use and more than double wives only reporting of use. It is apparent from these examples that differences in the reporting of current use of modern contraception between husbands and wives can be substantial in Sub-Saharan Africa. But as noted above, the differential reporting is not as large as found in some earlier studies. Nevertheless, where these differences exists, the reason is not clearly evident.

It is often claimed that differential reporting of condom use may explain the difference, since husbands often report higher use than wives. The argument is that since women are not the ones who actually use the method, they may fail to report its use. So, the question is, is condom use the source of the differences in husbands' and wives' reporting of modern contraceptive use? If this were the case, we would expect substantially larger proportions of husbands to report condom use than their spouses. We examine this by looking at the percentage of couples in which only the husband reports condom use (Table 4 column 7). Our finding shows that this may be an important explanation for the discrepancy. The percentage ranges from 0.7% in Ethiopia to 29% in Swaziland. The significance of this differential reporting of condom use to explaining the disparity between husbands' and wives' reporting of current use of modern methods can be seen by relating column 4 with column 7. Among couples where only the husband reports use of modern method, the proportion that is due to husbands' reporting of condom use ranges from 22% in Zimbabwe to 143% in Lesotho. This ratio is more than one half in 15 of the 20 countries and between. Thus, although some other factors may contribute to the observed differences between husbands' and wives' reporting of use of modern contraception, the role of differential reporting of condom use seems to be very important and deserves further examination.

But these findings also add another dimension to the issue of differential reporting between husbands and wives that has not been given previous consideration. That is that wives may be reporting use some methods that husbands are not reporting. For example, in three countries, Lesotho, Namibia and Swaziland, the ratio of the proportion of husbands who only reported condom use to the proportion of husbands who only reported use of modern methods is higher than 100% (102-143%). This suggests that wives in these countries were reporting use of other methods that the husbands were not reporting. Also, in Lesotho, Malawi and Namibia, despite the fact that the proportion of only husbands reporting condom use is 5% points or higher, the proportions of only wives reporting use are higher than the proportions of only husbands reported use. In 6

additional countries, Ghana, Liberia, Nigeria, Tanzania, Uganda and Zambia, the difference between the two proportions is less than 5 percentage points, although the proportion of husband only reporting condom use is 5 percentage points or more, Whatever the explanation, these discrepancies also emphasize the importance of obtaining information from both men and women when measuring contraceptive prevalence.

Fertility Intentions and Contraceptive Behavior

We have shown that husbands and wives do not necessarily have the same fertility preferences and that they may differ in their reporting of contraceptive use. Since fertility and contraceptive outcomes for a couple requires the involvement of both partners, each spouse's attitudes and preferences as well as attitudinal agreements between the spouses are often viewed as vital in shaping actual behavior. As noted earlier, it has been established that fertility intentions, both in terms of individual spouses' preferences as well as joint preferences of spouses, predict subsequent fertility behavior.[28] The issue that needs further investigation is the relative importance of individual spouses' preferences in determining reproductive outcomes in Sub-Saharan Africa.

In this section we examine the relationship between fertility intentions and current use of contraception. The idea is to determine how individual and joint future fertility preferences translate into contraceptive use. In this respect, we start with the assumption that when an individual wants no more children or wishes to postpone childbearing he/she will be using contraception. Under this assumption, it is easy to see why contraceptive use will be high when both spouses want to stop or postpone childbearing and low when they both want to have another child. It is, however, more interesting and important to find out whether and to what extent contraception is used in situations where spouses disagree about their intentions. Do couples use contraception more when the husband wants more children and the wife does not or when the wife wants more and the husband does not? Is it true that where men are favored in terms of access to household and community

resource and recognition, they also have a greater influence on reproductive outcome? This analysis will help to shed light on the issue of whose view is more influential in fertility-decision-making.

The results of this analysis are presented in Table 5. For each country, the first row shows the level of use of modern contraception among monogamous couples by joint fertility intentions without controlling for the effects of any other variable (i.e. unadjusted proportion). The findings in the first row largely support the a-priori assumed direction of method use among couples who are in agreement. With the exception of Benin, Burkina Faso Chad and Nigeria (all in West Africa), use of modern contraception is highest when both spouses agree to stop childbearing. The unadjusted percentage of couples in this category who are using modern methods ranges from 5% in Cote d'Ivoire to 75% in Zimbabwe (column 3). More than 20% of these couples are using modern methods in 18 of the 23 countries for which data are available. On the other hand, use of modern contraception is lowest among couples who agree to have more children in most of the countries. The level of use of modern methods for this group of couples ranges from 2% in Chad to 69% in Zimbabwe: it is less than 20% in 15 countries (column 5) Apparently, these couples are using in order to postpone the birth of another child. Under both situations of agreement, couples in eastern and southern Africa are more likely to be using contraception than their counterparts in western and Southern regions.

When there is a disagreement between spouses about their fertility intentions there is no clear pattern with respect to the direction of contraceptive use (columns 3 and 4). In 13 of the 23 countries, use of modern contraception is higher in magnitude when the husband only wants to stop childbearing. In the other 10 countries, however, use of a modern method is higher when it is the wife only who wants to stop having children. The magnitude of the difference in use according to which spouse wants more or wants no more children suggests, however, that the difference is trivial in about half of these countries: it is less than 8 percentage points in 16 of the 23 countries. For the remaining 6 countries, the difference ranges from 10 percentage points in Mali to 21 percentage

points in Madagascar, and use is higher when the husband only wants no more children in 4 of these 6 countries.[***] These findings suggest that although there is no systematic difference, and no simple generalization, there is a tendency to greater influence of husbands' preferences on contraceptive use in sub-Saharan Africa. There is no notable difference between western and central African countries and the countries in eastern and southern parts of the region. This conclusion is supported by the male dominance hypothesis that is often associated with the traditional Sub-Saharan cultural norms and social systems. Is this conclusion valid after controlling for the effects of other variables? This question is examined below.

The second row of Table 5 for each of the 23 countries for which this analysis is possible presents the corresponding level of use of modern methods by joint fertility intentions after controlling for the effects of the age and education of both spouses, residence, and the number of living children, in logistic regression models. Judging from the chi-square values and the associated degrees of freedom in columns 6 and 7, the joint fertility intentions of couples emerges as a significant predictor of current use of modern methods in 21 of the 23 countries analyzed.[†††]

For the 16 countries, the pattern and the direction of the relationship between the two variables of interest remain largely similar to the ones observed before controlling for the effects of those other variables for couples who agree. In 11 of them, use of modern methods is highest when both spouses want to stop childbearing and lowest when they want to have more children. Comparing the adjusted proportions in columns 3 and 4 (second row) for the 21 countries where the preference variable remains significant after controlling for the effects of other factors, and assuming a difference of 5 percentage point or more as substantial, only in Benin Lesotho and Namibia are couples more likely to be using modern methods of family planning when the husband wants no more children and the wife wants more. On the other hand, use of modern contraception

[***] The six countries are Benin, Burkina Faso, Mali, Malaw1, Madagascar and Zambia.
[†††] The variable loses its significance (at 5% level) as a predictor of use of modern contraception after

is higher among couples in Chad, Mali, Niger, Nigeria, Malawi, Mozambique, and Uganda when the wife wants no more children and the husband does. The results for the remaining 13 countries show very similar levels of use in the two groups of couples, that is, when either partner wants no more children they are equally likely to use modern methods. Thus, compared with the situation before introducing the controls, the general pattern of little or no difference in contraceptive use among couples when the spouses disagree about whether or nor they want another child still holds. However, among the 10 countries where there are significant differences in use by gender preference, the results suggest that the preference of the wife appears to be more dominant in determining whether or not the couple use modern contraception in the majority of these countries (7 compared to 3) when the effects of other variables are taken into account. Thus, the conclusion is that in general, there is little or no difference in contraceptive use among couples by differential reporting of fertility preference between spouses in Sub-Saharan Africa. When there is a difference, the wife's preference seems to predominate in predicting contraceptive use.

Discussion

The findings from this study indicate that in many of the countries included, both husbands and wives want a large family. At the aggregate level, husbands are more likely to want a large family than their wives. An examination of the subject at the level of couples also shows the pattern that is observed at the aggregate level. In many of the 24 countries, there is a substantial discrepancy between the preferences of spouses: in about two-thirds of the countries, husbands and wives differ by one child or more in the family size they consider ideal. Our analysis also shows that husbands want a larger family size than their wives in most of the 24 countries included in this study. The disparity is particularly pronounced in western and central Africa: in countries included from these sub-regions, husbands want 1-5 children more than their wives These findings suggest,

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controlling for the effects of other variables in Burkina Faso, Ghana and Lesotho.

therefore, that husbands and wives in Sub-Saharan Africa do differ in their fertility goals, although the magnitude of the differences as well as its significance for behavior varies across countries and sub-regions.

With regard to fertility intentions, husbands and wives for the most part agree about whether or not they want more children in all of the 24 countries. Two-thirds or more of the couples are in agreement on this subject with generally little variation by country. However, in 9% to 35% of couples, partners disagree about whether they want another child. Disagreement is usually of the type whereby the husband wants more children but the wife does not. Our analysis also shows that when marital partners agree to have another child, they may differ about the timing of the next child: whether they want the child now/soon (within two years) or later. This type of disagreement occurs in 18% to 39% of these couples, and more often husbands want to have the next child sooner than do their wives. Again, this evidence of greater motivation to have children among husbands than wives is more prevalent in western and central Africa compared to the eastern and southern parts, where the proportions of couples in which husbands want a(nother) child sooner is similar to the proportion in which wives do.

The findings from the two indicators of reproductive preferences examined in this paper have implications for fertility and family planning behavior. First, they show that decline in family size preferences, which is a necessary precursor of decline in actual fertility, tends to occur first among wives. Furthermore, the results indicate that married women probably have a better understanding of the benefit of spacing their children and the danger associated with having births in quick succession than their husbands. It follows, therefore, that the use of contraception either to space births or to limit family size is likely to be initiated by wives rather than their husbands. But success of achieving a smaller family size will depend on how responsive husbands' fertility preferences are to the changes in their spouses' preferences and the influence of husbands' preferences on couples' reproductive behavior. As noted earlier, studies have shown that husband's

opposition to family planning, presumably because of their greater desires for large family, is often a deterrent to women's use of contraception. In some cases, women who are strongly motivated to limit their family size may be using a method without the knowledge of their spouses.

Contraceptive knowledge is high among husbands and wives in the 24 countries and only small differences are observed between the reporting of marital partners. On the other hand, results from our analysis show some evidence of substantial differences between husbands' and wives' reporting of use of modern methods of contraception. It is important to note however, that the differences are not as substantial as found about 10 years ago when a similar analysis was conducted. This tendency towards agreement in spousal reporting of contraceptive use is probably associated, at least in part, to increasing tolerance for family planning in the region and better communications among couples with respect to fertility related behaviors. The findings support the claim that husbands are more likely to report higher use of family planning than their wives.

While differential reporting of condom use between marital partners seems to be an important source of this discrepancy in spousal reporting of contraceptive use, it does not appear to be the sole cause. As a matter of fact, even in countries where the proportion of couples in which husbands only reported condom use is fairly substantial, women still reported more use of modern contraception than husbands. This may mean that either that husbands are not aware that their wives are using a modern method or like some women are assumed to do in the case of condoms, some men are leaving some female methods that their wives are using unreported. This finding highlights a potential problem associated with the conventional measure of contraceptive prevalence based only on women's report. Our results show that estimates of contraceptive use may vary widely depending on whether the researcher relies solely on data obtained from women or takes into account husbands' reporting of use by interviewing both partners. For instance in Benin, husbands' reporting of use of modern method is twice as high as their wives' reporting. More research is needed on the causes of this discrepancy, but at the same time, studies of fertility and

family planning will benefit from adopting measures of contraceptive use that are based on the reporting of both partners.

Our findings support the claim that reproductive intentions are important predictors of contraceptive behavior. Before controlling for other variables, the joint fertility intentions of the spouses significantly determines whether or not the couple will use modern methods of family planning in 18 of the 22 countries for which we have information. After controlling for the effects of spouses' characteristics, the joint fertility intentions also emerge as a significant predictor of use of modern contraception in 21 of the 23 countries. As expected, couples generally tend to use contraception more when they want to stop childbearing and less when they intend to have more children even in countries where the level of use is still low. The more interesting investigation, however, relates to the level of contraceptive use when couples disagree about their intentions: when one spouse wants more but the other does not. This issue is not easy to resolve.

Overall, the results of the multivariate analysis suggest that in the majority of the countries in Sub-Saharan Africa, the preferences of both partners are about equally important in predicting a couple's use of modern methods. However, in situations where the influence of the partners' preferences on modern contraceptive use differs, the wife's preference exerts a stronger influence on the couple's contraceptive behavior in 7 of the 10 countries where the impacts of the spouses' preferences on modern contraceptive behavior are significantly different. Comparing these findings to the results of a similar analysis conducted about a decade ago suggests that not much has changed in terms of the pattern and direction of the effects of spousal fertility preference disagreement on contraceptive use. In both studies, when this disagreement matters in terms of its predictive power with respect to use of modern methods, wives desires tend to predominate over that those of husbands.[29] This does not seem to follow the conventional wisdom that arrogates power and authority to the male partner in the marital dyad. If it is true that men have more power than their wives in household decision-making, that power does not seem to drive contraceptive use

among couples in favor of the husband's fertility preference.

[1] Bongaarts, J. The Causes of Stalling Fertility Transitions, Studies in Family Planning, 2006, 37(1)1-16
[2] Bongaarts, J. Fertility Transitions in Developing Countries: Progress or Stagnation? Working Paper, No 7, 2008, The Population Council: New York
[3] Sedgh G et al., Women with an unmet need for contraception in developing countries and their reasons for not using a method, *Occasional Report*, New York: Guttmacher Institute, 2007, No. 37.
[4] Casterline, J.B., A.E. Perez, and A.E. Biddlecom. 1997. Factors underlying unmeet need in the Philippines. *Studies in Family Planning* 28(3): 173-191; Gebreselassie, Tesfayi, and Vinod Mishra. 2007. *Spousal Agreement on Family Planning in Sub-Saharan Africa*. DHS Analytical Studies No. 11. Calverton, Maryland: Macro International
[5] Bankole A. and Ezeh A,C. Unmet need for couples:
[6] Bankole A, Desired Fertility and Fertility Behavior Among the Yoruba of Nigeria: A Study of Couple Preferences and Subsequent Fertility, *Population Studies*, 1995, 49(2):317-328; and Ezeh AC, The Influence of Spouses over Each Other's Contraceptive Attitudes in Ghana, *Studies in Family Planning*, 1993, 24(3):163-174.
[7] Becker S, Couples and Reproductive Health: A Review of Couple Studies, *Studies in Family Planning*, 1996, 27(6):291-302; and Degraft DS and deSilva V, A New Perspective on the Definition and Measurement of Unmet Need for Contraception, *International Family Planning Perspectives*, 1996, 22(4):140-147.
[8] Frank O and McNicoll G, An Interpretation of Fertility and Population Policy in Kenya, *Population and Development Review*, 1987, 13(2):209-243; and Fapohunda ER and Todaro MP, Family Structure, Implicit Contracts, and the Demand for Children in Southern Nigeria, *Population and Development Review*, 1988, 14(4):571-594.
[9] Lasee A and Becker S, Husband-Wife Communication About Family Planning and Contraceptive Use in Kenya, *International Family Planning Perspectives***,** 1997, 23(1):15-20; and Casterline JB, Perez AE and Biddlecom AE, Factors Underlying Unmet Need for Family Planning in the Philippines, *Studies in Family Planning*, 1997, 28(3):173-191.
[10] Ezeh AC,1993, op. cit. (see reference 1).
[11] Bankole A, 1995, op. cit. (see reference 1).
[12] Coombs LC and Chang M, Do Husbands and Wives Agree? Fertility Attitudes and Later Behavior, *Population and Environment*, 1981, 4(2):109-127.
[13] Bankole A, The Role of Mass Media in Family Planning Promotion in Nigeria, DHS Working Papers, Calverton, MD, USA: Macro International, 1994, No. 11.
[14] Mbizvo MT and Adamchak DJ, Family Planning Knowledge, Attitudes, and Practices of Men in Zimbabwe, *Studies in Family Planning*, 1991, 22(1):31-38; and Mustafa MA and Mumford SD, Male Attitudes Towards Family Planning in Khartoum, *Journal of Biosocial Science*, 1984, 16(4):437-450.
[15] Khalifa, MA, Attitudes of Urban Sudanese Men Toward Family Planning, *Studies in Family Planning*, 1988, 19(4):236-243.
[16] Dodoo FN-A, A Couple Analysis of Micro Level Supply/Demand Factors in Fertility Regulation, *Population Research and Policy Review*, 1993, 12(2):93-101; and Bankole A and Ezeh AC, Unmet Need for Couples: A Conceptual Framework and Evaluation with DHS Data, paper Presented at the annual meeting of the Population Association of America, Washington, DC, March 26-29, 1996.
[17] Westoff CF and Rodriguez G, The Mass Media and Family Planning in Kenya, DHS Working Papers, Columbia, MD, USA: Macro International, 1994, No. 4.
[18] Bankole A and Olaleye DO, Do Marital Partners Have Different Reproductive Preferences in sub-

Saharan Africa?," in Makinwa P and Jensen A, eds., *Women's Position and Demographic Change in Sub-Saharan Africa*, Liege, Belgium: IUSSP, 1995, 147-167.

[19] Westoff CF, Blanc AK and Nyblade L, Marriage and Entry into Parenthood, DHS Comparative Studies, Calverton, MD, USA: Macro International, 1994, No. 10.

[20] Mason KO and Taj AM, 1987, op. cit. (see reference 12).

[21] Ezeh AC, Seroussi M and Raggers H, Men's Fertility, Contraceptive Use, and Reproductive Preferences, DHS Comparative Studies, Calverton, MD, USA: Macro International,1996, No. 18.

[22] Gebreselassie, Tesfayi. 2008. *Spousal Agreement on Reproductive Preferences in Sub-Saharan Africa.*
Calverton, Maryland, USA: Macro International Inc.

[23] Bongaarts J, Do Reproductive Intentions Matter?, Working Papers, New York: Population Council, 1991, No. 30; Thomson E, McDonald E and Bumpass LL, Fertility Desires and Fertility. Hers, His and Theirs, *Demography*, 1993, 27(4):579-588; and Westoff CF, 1990, op. cit. (see reference 20).

[24] Westoff CF and Ochoa LH, Unmet Need and the Demand for Family Planning, DHS Comparative Studies, Columbia, MD, USA: Institute for Resource Development/Macro International, 1991, No. 5; and Westoff CF and Bankole A, Unmet Need: 1990-1994, DHS Comparative Studies, Calverton, MD, USA: Macro International, 1995, No. 16.

[25] United Nations, Men's and Women's contraceptive practices, *Population Newsletter*, No. 59: 9-13, 1995

[26] Ezeh AC and Mboup G, Estimates and Explanation of Gender Differentials in Contraceptive Prevalence Rates, *Studies in Family Planning*, 1997, 28(2): 104-121.

[27] Becker S, 1996, op. cit. (see reference 2).

[28] Bongaarts J, 1991, op. cit. (see reference 21); Thomson E, McDonald E and Bumpass LL, 1993, op. cit. (see reference 21); and Westoff CF, 1990, op. cit. (see reference 21).

[29] Bankole, A. and Singh S. Couples fertility and contraceptive decision making in developing countries: Hearing the man's voice, *International Family Planning Perspectives*, 1998, 24(1):15-24.

Table 1: Social and economic characteristics of men and women who are in union or married, in 24 developing countries: DHS 2003-2007

Country	Median age difference between partners	% In a polygamous union		% Employed		% Literate (reading proficient)		% With 7+ years of schooling		N
		Men	Women	Men	Women	Men	Women	Men	Women	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Western/Central Africa										
Benin	7.0	35.1	44.3	94.3	86.0	32.1	11.1	20.1	6.6	3,345
Burkina Faso	9.0	31.5	47.4	79.3	90.2	14.3	5.7	7.8	4.1	2,340
Chad	8.0	24.9	32.4	97.9	78.5	22.2	4.7	12.0	2.6	924
Congo Democratic Republic	6.0	25.0	27.4	84.9	74.2	74.7	39.5	62.0	30.1	2,373
Ghana	6.0	11.5	14.3	97.7	88.4	45.5	22.2	64.8	44.1	1,883
Guinea	11.0	39.5	51.6	96.0	84.2	21.7	5.7	16.3	5.0	1,997
Liberia	5.0	8.4	10.1	92.9	69.9	58.7	21.7	52.0	17.9	2,677
Mali	10.0	30.7	42.5	79.3	60.7	17.3	5.7	11.5	4.6	2,665
Niger	9.0	23.7	36.5	73.6	40.1	13.6	5.2	7.5	4.0	2,226
Nigeria	8.0	20.5	30.3	98.0	64.5	51.3	33.1	41.3	29.8	8,731
Senegal	10.0	27.7	37.6	85.7	39.8	34.9	18.3	20.2	8.2	1,432
Eastern/Southern Africa										
Ethiopia	6.0	6.3	6.6	97.5	24.4	35.9	11.1	11.5	5.2	2,968
Kenya	6.0	8.0	8.4	97.5	62.0	77.8	71.5	79.2	71.5	1,431
Lesotho	5.0	5.3	5.3	44.2	44.2	58.5	87.7	32.9	62.2	748
Madagascar	4.0	1.5	1.6	99.2	91.5	65.2	57.6	23.7	19.2	4,599
Malawi		10.4	11.2	66.9	57.9	71.2	45.8	41.1	26.1	1,850
Mozambique	5.0	15.4	18.7	77.3	77.8	50.6	19.5	15.6	4.9	1,435
Namibia	3.0	2.4	2.4	86.6	53.2	75.2	78.1	63.5	69.0	867
Rwanda	4.0	5.4	5.4	58.3	67.9	65.8	56.5	21.4	18.7	2,189
Swaziland	5.0	5.9	6.6	78.5	49.1	80.0	81.2	65.4	69.0	802
Tanzania	5.0	11.6	14.3	98.2	84.2	74.8	58.9	66.3	59.1	1,244
Uganda	5.0	18.1	19.1	99.2	86.3	67.7	41.6	40.7	24.3	1,223
Zambia	5.0	8.6	9.7	94.7	51.8	69.6	46.0	65.6	46.2	3,129
Zimbabwe	5.0	5.9	7.4	81.1	40.7	86.2	78.6	82.3	77.8	2,562

*Includes those who are legally married and those in a consensual or cohabitating union. The term "married" is also used to describe all unions, and the terms "husbands" and "wives" are used to describe all men and women in a union.

Table 2: Desired family size among men and women who are in union or married, in 24 developing countries: DHS 2003-2007

Country	Percent of couples where:			Mean desired family size*		
	Husband wants more children than wife	Wife wants more children than husband	Both spouses want the same number of children	Husbands	Wives	Difference ((4)-(5))
	(1)	(2)	(3)	(4)	(5)	(6)
Western/Central Africa						
Benin	50.5	25.9	23.6	7.5	5.5	2.1
Burkina Faso	48.0	33.7	18.2	7.5	5.9	1.6
Chad	63.2	21.7	15.1	13.8	8.8	5.0
Congo Democratic Republic	44.4	30.1	25.5	8.5	7.0	1.5
Ghana	43.6	28.3	28.1	6.9	5.0	1.2
Guinea	64.1	18.8	17.1	9.5	6.0	3.5
Liberia	47.2	31.6	21.2	6.6	5.5	1.1
Mali	55.9	26.2	17.9	8.6	6.4	2.2
Niger	53.6	29.9	16.5	11.8	8.3	3.4
Nigeria	44.7	30.2	25.1	9.9	6.9	3.0
Senegal	53.7	25.0	21.3	8.5	6.1	2.4
Eastern/Southern Africa						
Ethiopia	45.1	31.6	23.3	6.8	5.6	1.2
Kenya	41.5	27.0	31.5	5.3	4.1	1.2
Lesotho	42.9	26.4	30.7	4.3	3.5	0.8
Madagascar	36.3	26.7	37.0	5.8	5.2	0.6
Malawi	35.0	32.6	32.4	4.5	4.4	0.1
Mozambique	50.7	31.3	18.0	7.3	5.7	1.5
Namibia	50.6	26.6	22.7	4.7	3.4	1.3
Rwanda	25.4	41.9	32.6	4.2	4.5	-0.3
Swaziland	51.2	20.2	28.6	3.7	2.7	1.0
Tanzania	38.9	34.9	26.2	6.5	5.7	0.8
Uganda	47.3	28.5	24.2	6.7	5.4	1.4
Zambia	43.0	31.3	25.7	5.8	5.2	0.6
Zimbabwe	45.3	29.1	25.6	5.0	4.2	0.8

*Non-numeric responses are classified as six children for both husbands and wives

Table 3: Fertility intentions among men and women who are in union or married, in 24 developing countries: DHS 2003-2007

Country	Percent distribution of couples by future fertility preference				of couples who want more, % husband only wants soon	of couples who want more, % wife only wants soon
	husband only wants no more	both parties want no more	wife only wants no more	both parties want more		
	(1)	(2)	(3)	(4)	(5)	(6)
Western/Central Africa						
Benin	7.8	12.7	12.1	67.4	15.0	12.0
Burkina Faso	6.1	6.1	14.5	73.4	14.4	10.5
Chad	3.8	0.8	7.1	88.3	17.9	15.8
Congo Democratic Republic	5.8	10.0	8.3	75.9	10.9	10.1
Ghana	11.2	26.4	10.3	52.2	10.6	11.2
Guinea	2.7	3.4	14.8	79.0	22.2	11.0
Liberia	11.1	10.5	15.4	62.9	20.9	12.1
Mali	4.8	5.0	14.4	75.8	20.5	15.9
Niger	2.2	1.4	6.8	89.6	18.5	15.6
Nigeria	6.9	8.6	8.9	75.7	16.4	19.1
Senegal	3.8	5.1	16.8	74.3	17.8	12.6
Eastern/Southern Africa						
Ethiopia	11.0	23.2	15.6	50.1	12.2	12.3
Kenya	8.8	38.5	12.4	40.3	12.6	13.9
Lesotho	8.8	34.3	18.9	37.9	9.3	8.5
Madagascar	7.1	34.2	9.9	48.8	9.9	6.5
Malawi	12.6	26.2	12.2	49.0	10.0	14.0
Mozambique	5.9	9.6	15.0	69.4	22.9	16.0
Namibia	12.0	38.2	23.1	26.7	18.4	20.4
Rwanda	12.1	29.7	11.3	46.9	7.9	11.8
Swaziland	11.4	39.4	21.0	28.2	7.4	10.7
Tanzania	8.5	10.7	12.2	68.6	13.1	13.9
Uganda	9.7	24.4	16.2	49.7	17.0	11.7
Zambia	10.2	21.4	13.9	54.5	11.5	10.0
Zimbabwe	10.8	27.9	14.7	46.6	10.2	12.4

Table 4: Knowledge and use of family planning methods among couples who are in union or married, in 24 developing countries: DHS 2003-2007

Country	% reporting knowledge of modern method			% reporting use of a modern method			% husband only
	Husband only	Both	Wife only	Husband only	Both	Wife only	reported condom use
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Western/Central Africa							
Benin	10.0	86.0	3.0	10.4	2.8	3.2	7.3
Burkina Faso	8.2	84.3	6.0	14.3	6.3	3.0	10.6
Chad	28.4	44.2	4.3	3.4	0.7	0.8	1.9
Congo Democratic Republic	17.4	72.1	3.6	na	na	na	na
Ghana	2.5	96.8	0.6	9.8	9.6	7.8	4.8
Guinea	6.2	90.3	2.7	6.7	0.5	2.6	3.5
Liberia	9.9	85.0	2.6	7.8	2.7	7.3	6.8
Mali	22.5	69.4	4.2	na	na	na	na
Niger	29.4	62.2	3.2	na	na	na	na
Nigeria	25.6	60.4	4.8	5.2	3.1	5.3	3.8
Senegal	5.8	89.9	3.6	6.0	6.4	6.3	3.0
Eastern/Southern Africa							
Ethiopia	8.5	84.0	4.5	3.2	9.9	5.2	0.7
Kenya	3.0	95.3	1.2	9.4	24.0	15.8	5.9
Lesotho	1.1	96.6	1.8	5.8	22.2	11.8	8.2
Madagascar	3.0	92.2	2.9	3.2	19.3	9.5	1.5
Malawi	1.1	97.9	0.9	8.4	18.2	11.4	5.7
Mozambique	9.3	86.0	2.7	4.1	5.0	6.3	2.2
Namibia	0.3	98.8	0.8	13.0	35.1	21.5	13.5
Rwanda	2.2	97.3	0.6	na	na	na	na
Swaziland	0.1	99.8	0.1	23.1	32.4	17.5	27.8
Tanzania	2.4	96.4	0.9	9.4	15.3	5.6	6.4
Uganda	2.0	97.2	0.7	7.8	12.2	6.6	5.1
Zambia	1.4	98.4	0.2	11.3	20.9	7.3	8.2
Zimbabwe	0.7	98.9	0.4	14.6	54.0	6.5	3.2

na Not available

Table 5: Unadjusted and adjusted effects of fertility preferences for fecund monogamous couples on current use of modern methods of family planning in 23 developing countries: DHS 2003-2007[+]

Percent using modern method/ Country[++]		Joint Fertility Desire							
		All	Both wants no more	Wife want no more	Husband wants no more	Both want more	Chi-sq or F**	df	N
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Western/Central Africa									
Benin	Unadj.	16.2	17.1	16.0	30.3	14.7	14.2**	3	1,441
	Adj.	16.2	19.8	20.3	29.3	13.5	14.6**	3	
Burkina Faso	Unadj.	10.0	18.7	8.5	23.0	8.2	17.4**	3	999
	Adj.	10.0	18.4	11.7	15.2	8.5	5.1	3	
Chad	Unadj.	2.9	5.8	8.0	6.6	2.2	4.2	3	440
	Adj.	2.9	16.9	23.7	5.4	0.8	12.2**	3	
Congo Democratic Republic	Unadj.	5.6	15.1	7.3	5.0	3.8	25.3**	3	1,326
	Adj.	5.6	17.5	7.4	5.1	3.4	21.2**	3	
Ghana	Unadj.	25.0	28.4	33.3	22.2	20.7	21.37**	3	1,347
	Adj.	25.0	38.3	23.5	25.7	23.5	23.74**	3	
Liberia	Unadj.	20.1	33.8	19.9	18.6	17.7	28.2**	3	2,003
	Adj.	20.1	32.5	19.9	16.1	18.4	18.2**	3	
Mali	Unadj.	10.6	24.6	20.6	10.3	8.2	28.4**	3	1,260
	Adj.	10.6	27.3	24.6	6.5	7.6	22.1**	3	
Niger	Unadj.	9.4	30.1	10.5	5.1	8.8	11.2**	3	1,124
	Adj.	9.4	24.1	13.6	1.5	8.8	11.3**	3	
Nigeria	Unadj.	17.4	25.3	38.9	25.0	12.6	229.03**	3	4,815
	Adj.	17.4	29.9	39.7	21.0	12.4	128.58**	3	
Senegal	Unadj.	14.6	47.5	15.5	17.4	12.4	23.7**	3	732
	Adj.	14.6	35.4	14.9	10.6	13.6	8.2*	3	

Eastern/Southern Africa									
Ethiopia	Unadj.	18.0	27.9	15.9	18.6	14.4	46.4**	3	2,342
	Adj.	18.0	28.7	17.2	17.5	14.0	32.3**	3	
Kenya	Unadj.	49.9	51.4	51.9	58.9	45.9	6.9	3	1,136
	Adj.	49.9	50.2	54.7	55.9	44.5	6.0	3	
Lesotho	Unadj.	38.9	43.8	40.4	43.7	32.7	6.8	3	624
	Adj.	38.9	47.2	38.3	43.6	30.7	6.8	3	
Madagascar	Unadj.	32.6	37.4	37.7	41.0	27.0	56.87**	3	3,938
	Adj.	32.6	36.5	41.4	37.6	25.1	54.71**	3	
Malawi	Unadj.	35.2	52.4	43.5	28.1	25.8	73.9**	3	1,282
	Adj.	35.2	54.6	41.9	26.3	25.6	49.5**	3	
Mozambique	Unadj.	14.4	30.0	21.0	13.9	10.5	28.8**	3	914
	Adj.	14.4	35.5	24.9	11.2	9.1	25.2**	3	
Namibia	Unadj.	69.8	77.8	67.1	73.0	58.7	21.6**	3	755
	Adj.	69.8	79.1	69.8	73.5	54.6	23.8**	3	
Rwanda	Unadj.	11.5	15.3	14.3	15.5	7.2	27.2**	3	1,674
	Adj.	11.5	17.6	13.3	12.4	6.7	23.4**	3	
Swaziland	Unadj.	71.3	76.4	73.3	75.5	61.8	12.5**	3	658
	Adj.	71.3	80.1	74.7	72.0	57.0	17.5**	3	
Tanzania	Unadj.	24.4	37.9	32.4	36.1	19.6	25.5**	3	856
	Adj.	24.4	42.7	31.9	35.2	19.1	20.8**	3	
Uganda	Unadj.	27.7	44.6	23.6	26.7	21.3	34.2**	3	771
	Adj.	27.7	53.1	28.1	22.3	17.0	40.1**	3	
Zambia	Unadj.	42.3	46.0	40.5	51.1	39.6	14.5**	3	2,375
	Adj.	42.3	53.0	43.0	47.9	36.8	21.8**	3	
Zimbabwe	Unadj.	71.7	74.8	73.2	72.6	68.9	7.0	3	2,052
	Adj.	71.7	80.0	72.7	72.6	65.7	21.8**	3	

** Significant at 0.05 or lower level.
+ Adjusted percentages are derived from the results of logit regression models, and they have been scaled to reproduce exactly
the sample total. The control variables included in the models are: age and education of spouses, residence and number of living children.
++ Guinea was excluded from this analysis because one of the four categories of fertility intentions predicts use of modern methods perfectly.

Appendix Table 1 Selected characteristics of couple data in 24 developing countries

Country	Year of Survey	Number of women interviewed	Number of men interviewed	Number of couples
Western/Central Africa				
Benin	2006	17,794	5,321	3,345
Burkina Faso	2003	12,477	3,605	2,340
Chad	2004	6,085	1,887	924
Congo Democratic Republic	2007	9,995	4,757	2,373
Ghana	2008	4,916	4,568	1,883
Guinea	2005	7,954	3,174	1,997
Liberia	2007	7,092	6,009	2,677
Mali	2006	14,583	4,207	2,665
Niger	2006	9,223	3,549	2,226
Nigeria	2008	33,385	15,486	8,731
Senegal	2005	14,602	3,761	1,432
Eastern/Southern Africa				
Ethiopia	2005	14,070	6,033	2,968
Kenya	2009	8,444	3,465	1,431
Lesotho	2004	7,095	2,797	748
Madagascar	2009	17,375	8,586	4,599
Malawi	2004	11,698	3,261	1,850
Mozambique	2003	12,418	2,900	1,435
Namibia	2006	9,804	3,915	867
Rwanda	2005	11,321	4,820	2,189
Swaziland	2006	4,987	4,156	802
Tanzania	2004	10,329	2,635	1,244
Uganda	2006	8,531	2,503	1,223
Zambia	2007	7,146	6,500	3,129
Zimbabwe	2006	8,907	7,175	2,562