

# Measuring Unmet Need: Wives, Husbands or Couples?

By Stan Becker

**Context:** *The definition of unmet need has changed over time, and estimates of unmet need can be calculated using wives', husbands' and couples' reports. All of these estimates may have implications for program planning.*

**Methods:** *Data from recent Demographic and Health Surveys (DHS) in Bangladesh, the Dominican Republic and Zambia are used to examine a new definition of unmet need—one that considers only responses regarding prospective fertility desires and intentions to use contraceptives. Unmet need is determined for wives, for husbands and for couples. A minimum estimate of unmet need for couples is produced when both partners have unmet need; a maximum occurs if either spouse having unmet need defines couple unmet need.*

**Results:** *Differences between spouses in contraceptive and fertility intentions are substantial in all three countries. There is greater dissimilarity between husbands and wives regarding intention to practice contraception than there is regarding childbearing intentions. In Zambia, 55% of wives who were not practicing contraception report intending to use contraceptives within 12 months, compared with 36% of comparable husbands. In Bangladesh, the corresponding figures are 46% for wives and 42% for husbands; in the Dominican Republic, the proportions are 49% and 41%, respectively. When unmet need calculated using wives' reports is compared with results using the minimum estimate, couples' unmet need is overestimated by 106% in Bangladesh, by 96% in the Dominican Republic and by 246% in Zambia. On the other hand, estimates based on wives' reports were closer to the maximum estimate for couples.*

**Conclusions:** *Unmet need calculated for married women differs considerably from unmet need calculated for husbands and couples. Large discrepancies in these measures may be an indicator of spousal disagreement or lack of communication about reproductive goals or contraceptive use—issues that programs will have to address if they seek to raise contraceptive prevalence rates.*

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An estimate of the unmet need for contraception in a population is necessary to determine the maximum potential demand for family planning services. Originally, unmet need referred to married women who do not want a birth in the future but are not practicing contraception. Later, the definition was broadened to include married women (nonusers) who want a future birth, but not within the two years following the interview. From current-status data of the type collected in Demographic and Health Surveys (DHS), a married woman is defined to have an unmet need for contraception if she is not in one of the following groups: a current user of contraceptives; a currently pregnant or amenorrheic woman who was using a contraceptive at conception; a currently pregnant or amenorrheic woman whose pregnancy was reported as intentional; an infecund woman; and a fecund woman who wants a child in less than two years.<sup>1</sup>

Using this definition, Westoff and Bankole estimated that if all those with unmet need in developing countries were able to space or limit their births as de-

sired, the total fertility rate would decline 10–25%, with the value in these ranges depending on the country, and would move 30–50% of the way toward replacement fertility.<sup>2</sup> A report on unmet need in 27 developing nations that had a DHS in the period 1990–1994 found the level of unmet need among currently married women to vary between 11% in Turkey and 37% in Rwanda. In 1996, the number of women in the world with unmet need was estimated to be about 100 million, or about one in every five married women.<sup>3</sup>

Debate about expanding the definition of unmet need continues. Arguments have been made to include unmarried women (and they have been included in some analyses), to include health reasons for need and to include women who want no more children but who are using ineffective contraceptives.<sup>4</sup> Additionally, the measure of unmet need has always been assumed to refer to women, although a correspondence between women's and couples' unmet need has sometimes been presumed as well; the main purpose of the analyses in this article are to determine

how accurate that presumption is.

Recently, men's unmet need has been defined and studied, using DHS data from Ghana and Kenya.<sup>5</sup> That analysis considered only unmet need for limiting child-bearing, but also included those using traditional contraceptive methods who said that they wanted no more children. Using this definition, the level of unmet need among husbands was 24% in Ghana and 23% in Kenya in 1993, whereas among wives it was 27% and 33%, respectively. Considering individual couples, fewer than half of the husbands of women with unmet need (39% in Ghana and 44% in Kenya) also had unmet need.

That paper also introduced the idea of couples' unmet need, which was defined as the proportion of couples with at least one partner having an unmet need for contraception. An alternative formulation of couples' unmet need defines a couple (not practicing contraception) as having an unmet need for spacing if one partner wants a child while the other does not, and includes such couples with those in which both partners wish to delay the next birth.<sup>6</sup> However, this is an arbitrary resolution of a real difference. Husbands', wives' and couples' unmet need for contraception was determined in a study of 195 couples in Accra, Ghana; in only 69% of couples did spouses agree on the desire to limit or space births.<sup>7</sup>

A complication with couple data is that some reported contraceptive use or unmet need for family planning may be with extramarital partners—or, in the case of polygamy, with other marital partners. Analyses of DHS data have been problematic because polygamous husbands have not been asked about contraceptive

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use (nor about fertility intentions) with respect to specific wives.

This article considers a new definition of unmet need. The starting point was the current definition of unmet need utilized in the DHS. Among married women not practicing contraception (excluding infertile women and those who are pregnant or amenorrheic within six months of the birth), answers to questions on whether they want another child and the timing of the next child determine unmet need. Noncontracepting women who want no more children have an unmet need for limiting; those who want to postpone the next birth two years or more or who are unsure when to have a child or whether to have another have an unmet need for spacing. Women who are pregnant or amenorrheic postpartum are categorized similarly, according to their desire for the current pregnancy or the last birth; the exception is that women whose pregnancy or birth in the last six months resulted from a contraceptive failure are classified as not having an unmet need.<sup>8</sup>

Several DHS questions are used to determine childbearing intentions. Pregnant or amenorrheic women are asked, "At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all?" The question for nonpregnant, nonamenorrheic women is: "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?" The follow-up question for those who want more is: "How long would you like to wait from now before the birth of (a/another) child?"

Parallel definitions of unmet need can be applied to married men, asking the same questions on wantedness of the last birth and future fertility intentions and using reproductive-status information from their wives. Only a few DHS surveys have included questions for husbands on the wantedness of the current or last pregnancy if the wife was currently pregnant or amenorrheic. From those that did,

recent DHS surveys from Bangladesh, the Dominican Republic and Zambia were chosen for this analysis.<sup>9</sup>

However, there were inconsistencies in the tabulations of the wantedness of the last birth by desire for future births in two of the three surveys. In the Dominican Republic and Zambia, 25% of wives who reported their last birth to have been unwanted (not mistimed) also said in the same interview that they wanted more children; the corresponding proportions for husbands were 45% and 25%, respectively. Recently, low consistency across time has been documented for the retrospective wantedness question in Morocco: In two national surveys of the same sample, fewer than half the women who reported their last pregnancy as unwanted in 1992 gave the same response in 1996.<sup>10</sup> In view of these results, it was decided to drop the retrospective wantedness information and to rely on responses regarding fertility desires and intentions to use family planning only—an approach similar to an earlier suggestion of Westoff.<sup>11</sup> Thus, we explore both a new definition of unmet need and its potential use in measuring couples' unmet need.

## Methods

### Data

Details of the three DHS surveys utilized for this study are given in Table 1. The completion rates of interviews were above 90% for women and were 80% or above for men.\* Couples were defined in the DHS to include both married partners and those living together in informal unions. The total number of couples varies from 842 in Zambia to 3,037 in Bangladesh. Since polygamous men were not questioned about contraceptive use and fertility intentions with respect to each wife

**Table 1. Number of respondents and married women's total fertility rates, contraceptive prevalence rates and levels of unmet need, three Demographic and Health Surveys, 1996 and 1997**

Measure	Bangladesh	Dominican Republic	Zambia
No. of women	9,127	8,422	8,021
% completeness	97.8	93.2	96.7
No. of men	3,346	2,279	1,849
% completeness	92.7	80.3	90.5
No. of couples	3,037	848	842*
No. of couples with no other reported sex partners†	na	768	683
Total fertility rate	3.3	3.2	6.1
Contraceptive prevalence rate	49.2	63.7	25.9
Unmet need	15.8	12.4	18.3
For spacing	7.9	5.3	5.1
For limiting	7.9	7.1	13.2

\*Of these, 744 are monogamous and 98 are polygamous. †In the last month. Note: na=not available. Sources: For number of couples with no other reported sex partners, author's tabulations; for all others, see reference 9.

and the data, therefore, cannot be appropriately matched, polygamous couples were excluded from the analyses.

Fertility levels in Bangladesh and the Dominican Republic are virtually the same, and about one-half the level in Zambia. Estimates of women's unmet need, using the DHS definition at the time (including the retrospective information on wantedness for all women in postpartum amenorrhea rather than only for those within six months postpartum), range from 12% in the Dominican Republic to 18% in Zambia.

### Alternative Definition of Unmet Need

In this article, unmet need is defined as follows: Among individuals who are declared fecund, who are not practicing contraception and who want either to limit or to space their births (by more than two years), those who intend to use contraceptives within 12 months are considered to have unmet need (Figure 1, page 174).<sup>†</sup> This is a conservative definition, because those who are unsure about their fertility desire are not included, whereas they would be included in the traditional definition of unmet need. Additionally, among individuals who want to limit or to space births, only those who intend to practice contraception within a year are counted as having unmet need.<sup>‡</sup>

\*With only 80% completeness among men and 93% among women in the Dominican Republic, the sample may not be representative of the general population. This, however, will not be considered further here. In the other two countries, response rates were above 90% for each sex.

†Question wording: "Do you think you will use a method to delay or avoid pregnancy within the next 12 months?"

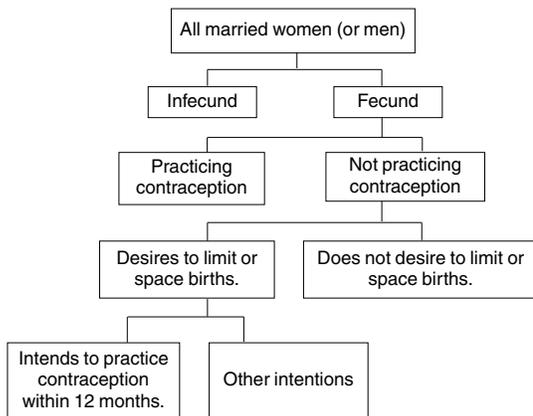
‡It could be argued that in the absence of contraceptive services, individuals would not think of contraceptive use; therefore, even if they do not state an intention to use, they have unmet need. However, this argument is

unconvincing, given that traditional methods are known and used worldwide. Also, note that for pregnant and amenorrheic women, their prospective intentions are used rather than their retrospective views on the wantedness of their last birth or their current pregnancy. A woman in Bangladesh who has just become pregnant could expect to experience eight more months of pregnancy and 10 months of postpartum amenorrhea (the median value). Even if she wanted to space the next birth, one might contend that she would not need contraceptive protection within 12 months. By taking the convolution of the distribution of the duration of pregnancy of currently pregnant women with the distribution of postpartum amenorrhea, one can estimate that 12% of

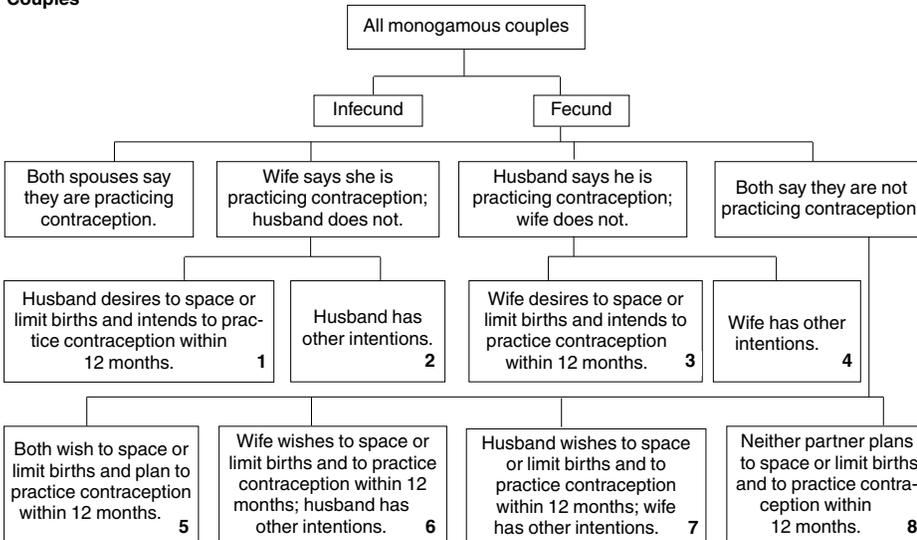
women in Bangladesh would not have a need for contraception within 12 months. Of course, amenorrhea in Bangladesh is longer than in other societies, and it is well-known that the protection of amenorrhea against conception decreases with time postpartum. Indeed, international recommendations say that even amenorrheic women should consider contraceptive use after six months postpartum (source: Gray RH et al., The risk of ovulation during lactation, *Lancet*, 1990, 335(8680):25-29; and Kennedy KI, Rivera R and McNeilly AS, Consensus statement on the use of breastfeeding as a family planning method, *Contraception*, 1989, 39(5): 477-495). Therefore, the inclusion of pregnant and amenorrheic women is appropriate on the whole.

**Figure 1. Categories for consideration of unmet need for contraception for individuals and for married couples**

**Individuals**



**Couples**



**Unmet Need Categories for Couples**

Unmet need can be defined for husbands and for wives separately, following the logic of the upper diagram in Figure 1. The selected combinations for couples are shown in the lower diagram.\* The estimate of unmet need based on couples in which both spouses want to space or to limit births and intend to use contraceptives within 12 months will obviously be lower than estimates based on responses

\*Couples are considered infecund if either spouse reports infecundity.

†The minimum estimate of unmet need is always lower than the individual values of unmet need for wives and for husbands calculated separately, and the maximum value is nearly always higher than the two individual values. The maximum could theoretically be less than the estimate based on one spouse, but this is unlikely. (One such aberrant case occurs if Categories 6 and 7 had no cases, and either Category 1 or Category 3 also had no cases.)

of wives and husbands separately. This is because the couple measure requires agreement between partners on their current nonuse of contraceptives, their desires to limit or space births and their intentions to practice contraception. Thus, the measure represents a minimum estimate of unmet need, and consists of only the couples in Category 5 (Figure 1, bottom panel).

As an alternative to the minimum estimate (where both spouses agree), a maximum estimate of unmet need can be calculated if couples in which either spouse (or both spouses) having unmet need are included. However, couples in which one spouse reports currently practicing contraception and the other intends to do so within 12 months really constitute a separate group that is problematic to classify. These couples may have unmet need,

depending on whose report of contraceptive use is valid, but this cannot be determined from the available data.

It would be an overestimate to consider all of these couples to have an unmet need. Among them, for example, are some in which the wife is practicing contraception surreptitiously and some in which one spouse is responding about contraceptive use with an extramarital partner. From a couple perspective, the former are users and the latter are nonusers. For the maximum estimate then, a simplifying assumption is made for these exploratory analyses: One-half of these couples for whom either contraceptive use or unmet need is ambiguous are considered here to have unmet need. Thus, the maximum measure of unmet need represents all couples in Categories 5, 6 and 7, and half of those in Categories 1 and 3. In contrast, the wife's unmet need is based on Categories 3, 5 and 6, while the husband's unmet need is based on Categories 1, 5 and 7.<sup>†</sup>

It is possible to refine the measurement further. Since married persons may have coitus in extramarital relationships, there could be reported contraceptive use that is not with the spouse but with an extramarital partner. In the Dominican Republic and Zambia DHS surveys, both spouses were asked about extramarital intercourse in the 12 months before the survey and about the timing of the most recent occurrence. To minimize this problem, therefore, couples in which either or both spouses reported outside partners in the last month were excluded from the analyses. Slightly less than 10% of monogamous couples fell into this category in the two countries.

**Analytic Methods**

The analyses presented in this article are exploratory, so simple distributions (that are weighted with women's sampling weights provided by Macro International) are presented, and statistical testing is minimal. The index of dissimilarity is used to contrast the marginal distributions for husbands and for wives: The value represents the proportion of responses that would have to be changed within the distribution for one sex or the other in order for the two distributions to be identical.

To further evaluate the extent to which spouses are reporting individual intentions and preferences, as distinguished from couple intentions and preferences, the kappa statistic is calculated on the cross-tabulations of spouses' responses. A kappa value of .00 represents no agreement beyond chance, .00-.40 represents poor agreement, .40-.75 represents good

**Table 2. Percentage distribution of wives and husbands, by reported desire for more children, and within monogamous couples, percentage distribution of wives and husbands not practicing contraception, by intention to use contraceptives, and index of dissimilarity, all according to country**

Measure	Bangladesh		Dominican Republic		Zambia	
	Wives	Husbands	Wives	Husbands	Wives	Husbands
<b>Desire for children</b>	<b>3,037</b>	<b>3,037</b>	<b>768</b>	<b>768</b>	<b>683</b>	<b>683</b>
Want in less than two years	12.2	11.9	11.4	14.7	27.1	31.1
Want, but after two years	20.8	20.5	17.9	17.4	35.6	37.9
Unsure of timing/undecided about desires	4.1	6.3	1.1	4.4	5.1	6.3
Want no more	50.5	49.8	20.8	17.3	28.7	20.7
Declared infecund	12.4	11.5	48.8	46.1	3.6	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Index of dissimilarity*</i>	2.2		6.6		7.6	
<b>Intention†</b>	<b>1,361</b>	<b>1,170</b>	<b>196</b>	<b>188</b>	<b>474</b>	<b>416</b>
Intend to use within 12 months	45.8	41.7	49.0	41.3	55.1	36.2
Intend to use later	21.2	21.8	13.3	27.2	12.3	24.9
Unsure	6.5	6.7	5.9	9.1	6.1	9.4
Do not intend to use	26.6	29.8	31.8	22.5	26.5	29.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Index of dissimilarity*</i>	4.2		17.0		18.9	

\*The proportion of responses that would have to be changed within the distribution for one sex or the other in order for the two distributions to be identical. †Couples reporting other partners are excluded. Note: Totals may not add to 100 due to rounding.

agreement and values above .75 represent excellent agreement beyond chance.<sup>12</sup>

## Results

Overall, there are only small differences in the distribution of men's and women's responses regarding desire for more children (Table 2, upper panel). The percentage distributions for husbands and wives are closest in Bangladesh and most dissimilar in Zambia. There is a 39% higher demand for limiting childbearing among wives in Zambia than among husbands (29% vs. 21%). Husbands are also more likely than wives to want another birth soon; this is also the case in the Dominican Republic.

Even though the sample includes spouses in monogamous, married couples, the numbers of husbands and wives that form the basis for the distributions of responses regarding intention to practice contraception in the future are not the same (Table 2, lower panel). This is because the number of reported contraceptive users is different for each gender. In all three surveys, the intention to use contraceptives in the coming year is considerably higher among wives than among husbands. Many husbands also intend to use, but later. While the proportions of husbands and wives who do not intend to use are similar in both Zambia and Bangladesh, the proportion of wives who do not intend to practice contraception is higher than that of husbands by more than one-third in the Dominican Republic. Overall, there are greater differences between wives and husbands in intentions to use family plan-

ning than in fertility desires, as shown by the larger values of the index of dissimilarity for contraceptive intentions.

In the Dominican Republic, 63% of husbands and of wives reported contraceptive use, and both partners reported use in 60% of couples (Table 3). While 31% of wives and 38% of husbands in Zambia reported practicing contraception, both spouses reported doing so in only 23% of couples. In Bangladesh, 55% of wives and 59% of husbands reported contraceptive use, and both partners did so in 52% of couples.

In each survey, the proportion of wives wanting to limit or to space births and intending to practice contraception within 12 months is higher than that of husbands. The proportion of couples in which both partners want to limit or to space births and plan to use contraceptives soon is approximately one-half the level of the esti-

mate based on the wives' reports alone in Bangladesh and the Dominican Republic and one-third the level in Zambia.

Disagreement on contraceptive use (the proportion of couples in which only one spouse reports use) is lowest in the Dominican Republic (8%) and highest in Zambia (23%, Table 4, page 176). Among couples in which the husband alone reports contraceptive use, the wife says she intends to use contraceptives within the next 12 months about one-half of the time in Bangladesh and Zambia and one-third of the time in the Dominican Republic. In contrast, when only the wife reports contraceptive use, roughly one-quarter to one-third of the husbands report an intention to use within 12 months.

Kappa statistics for spouses' reported practice of contraception produce values of .78 for the Dominican Republic, .48 for Zambia and .76 for Bangladesh. Among nonusers, the kappa values for intention to use contraceptives are moderate to low in all three countries (.47, .45 and .38, respectively). When kappa was calculated for polygamous couples in Zambia, the agreement for both response variables for the matched husbands and wives was poor (below .25 in both cases).

The proportion of couples not practicing contraception differs in the three countries. For ease of comparison, therefore, Figure 2 (page 176) shows the percentage distribution of couples in which one or both say they are not using contraceptives, by their desire to space or to limit births and their intention to use contraceptives. After this standardization, we can see that differences among the countries are relatively minor. In particular, distributions for Bangladesh and the Dominican Republic are similar; the index of dissimilarity is 8.7 (not shown). In contrast, the index for the comparison of the Dominican Republic and Zambia is 15.3, while the comparison of Zambia and Bangladesh

**Table 3. Percentage distribution of husbands and wives within couples and of couples, by fecundity status and contraceptive use status, all according to country**

Status	Bangladesh			Dominican Republic			Zambia		
	Wives	Husbands	Both	Wives	Husbands	Both	Wives	Husbands	Both
Infecund	9.5	9.5	9.5	13.4	13.4	13.4	4.9	4.9	4.9
Fecund, using contraceptives	54.6	58.8	51.5	63.2	63.3	59.5	30.9	37.6	22.9
Fecund, not using contraceptives	35.8	31.6	38.9	23.3	23.2	27.0	64.2	57.5	72.2
Desire to limit/space births and intend to use within 12 mos.	18.1	13.2	8.8	11.2	8.2	5.7	27.0	15.6	7.8
Other*	17.7	18.4	30.1	12.1	15.0	21.3	37.2	41.9	64.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\*Includes those who do not plan to space or limit births and those who plan to space or limit births but do not intend to practice contraception within 12 months. Note: Totals may not add to 100 due to rounding.

**Table 4. Percentage distribution of monogamous couples, by spouses' reports of contraceptive use and intention to use, according to need status and country**

Category	Need status		Bangladesh (N=3,037)	Dominican Republic (N=768)	Zambia (N=683)
	Wife	Husband			
Infecund	No need	No need	9.5	13.4	4.9
Fecund, both report currently using	No need	No need	51.5	59.4	22.9
Fecund, one spouse reports using			10.4	7.5	22.7
Husband alone, wife desires to space/limit births and to use within 12 months	Need	Using	3.7	1.2	8.5
Husband alone, wife has other intentions	No need	Using	3.6	2.6	6.2
Wife alone, husband desires to space/limit births and to use within 12 months	Using	Need	0.8	0.9	2.6
Wife alone, husband has other intentions	Using	No need	2.3	2.8	5.4
Fecund, both report they are not using			28.5	19.5	49.5
Both wish to space/limit births and to use within 12 months	Agreed, has need	Agreed, has need	8.8	5.7	7.8
Wife alone wishes to space/limit births and to use within 12 months	Need	No need	5.6	4.3	10.7
Husband alone wishes to space/limit births and to use within 12 months	No need	Need	3.6	1.6	5.2
Neither plans to space/limit births nor to use within 12 months	Neither has need	Neither has need	10.5	7.9	25.8
All couples			100.0	100.0	100.0

Note: Totals may not add to 100 due to rounding.

yields an index of 13.9. In Zambia, the proportion of couples in which neither partner intends to practice contraception is greater and the proportion of couples in which both partners intend to do so is smaller than in the two other countries.

Estimates were derived for married women in couples (using our definitions), as well as maximum and minimum estimates for couples (using the algorithms defined here), and were compared with estimates calculated by DHS for all married women. In all three countries, the minimum estimate of unmet need is 40–60% less than the DHS estimate for women (Table 5). On the other hand, the maximum estimate ranges from only 10% above the DHS estimate for married women in the Dominican Republic to 90% above the estimate for women in Zambia.

The minimum and maximum couple estimates and estimates for wives are shown in Figure 3, along with the values for all married women in the surveys using the DHS definition. The estimates for wives derived in this article are much closer to the maximum than to the minimum, because wives are more likely to express unmet need than are husbands. The estimates from this research for married women in Zambia and Bangladesh are higher than comparable estimates calculated using the DHS definition, but are slightly lower for women in the Dominican Republic. The differences in the Zambia and the Bangladesh estimates may be

due to the considerable number of pregnant and amenorrheic women in these countries who reported that they wanted to space or to limit births and to practice contraception within 12 months, but who did not say that their current pregnancy or last birth was unwanted or mistimed.

## Discussion

### The Concept of Couple's Unmet Need

In most developing nations, husbands report higher levels of contraceptive use and frequently have different (and generally more pronatalist) fertility desires than their wives.<sup>13</sup> It is, therefore, incorrect to use data from women to calculate unmet need for couples, although this erroneous correspondence is often made in the literature.<sup>14</sup> This article has explored the potential utility of the concept of couple unmet need, because the vast majority of births in the world occur within monogamous couples.

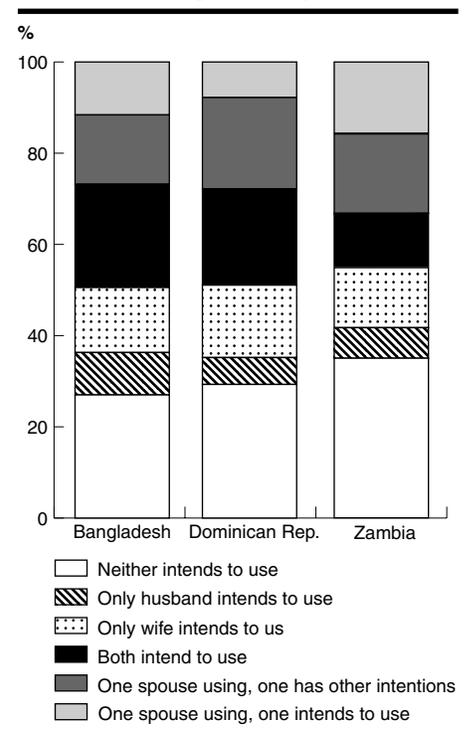
It is unclear to what extent contraceptive use is an individual behavior, as distinguished from a couple behavior. Although most contraceptive methods are used by individuals (and some can be used without the knowledge of the partner), several can be considered couple methods—specifically, withdrawal and rhythm, and to a lesser extent condoms—because the participation of both partners is necessary. These couple methods constitute a minority of contraceptive use in most settings, however. Any contracep-

tive use can be considered a couple phenomenon when the couple agrees on fertility and contraceptive intentions, and partner support can be crucial for contraceptive continuation.<sup>15</sup>

Similarly, fertility desires and unmet need are typically considered individual matters, but can also be regarded as couple phenomena, as evidenced in the Programme of Action of the International Conference on Population and Development, which affirms the importance of helping "...couples and individuals meet their reproductive goals in a framework that... respects the dignity of all persons and their right to choose the number, spacing and timing of the birth of their children."<sup>16</sup> Yet individuals in couples may have different reproductive goals, and if so, one of the two will be unable to exercise this right. This contradiction in itself provides an argument for examining a couple approach. Typically, some form of couple negotiation resolves these differences.

The reproductive and family planning intentions of spouses differ, to some degree, in virtually all nations where they have been examined.<sup>17</sup> Therefore, unmet need based solely on wives' reports will necessarily overestimate unmet need among couples, if one defines a couple with unmet need as one in which both spouses agree on their fertility desires and

**Figure 2. Percentage distribution of fecund couples not practicing contraception, by intention to use contraceptives within 12 months, according to country**



**Table 5. Percentage distribution of married women and married couples, by contraceptive need status and country, according to type of measure**

Need status and country	Married women	Couples	
		Minimum	Maximum
<b>Bangladesh</b>			
Unmet need	15.8	8.8	20.4
Met need	49.2	61.9	53.7
No need	35.0	29.2	25.9
Total	100.0	100.0	100.0
% change in unmet need estimate*	ref	-44.0	+43.0
<b>Dominican Republic</b>			
Unmet need	12.5	5.7	12.7
Met need	63.7	66.9	60.4
No need	23.8	27.2	26.7
Total	100.0	100.0	100.0
% change in unmet need estimate*	ref	-54.0	+10.0
<b>Zambia</b>			
Unmet need	18.3	7.8	29.3
Met need	19.2	45.6	28.4
No need	62.5	46.6	42.3
Total	100.0	100.0	100.0
% change in unmet need estimate*	ref	-57.0	+90.0

\*Relative to estimate for all married women with DHS definition. Note: Totals may not add to 100 due to rounding. ref=reference category. Sources: **Married women's reports**—see reference 9.

family planning intentions. Among the three countries studied here, there was considerable disagreement between spouses (who are not using contraceptives). Relative to the estimates based on couples in agreement, the estimates calculated using women's responses alone are higher by 106% in Bangladesh, by 96% in the Dominican Republic and by 246% in Zambia.\*

The greatest differences in spousal intentions are found in Zambia. Though polygamous couples were excluded from the analyses, it is likely that some currently monogamous men who have higher fertility intentions than their spouses plan to fulfill these intentions with another partner. (Among monogamous male respondents to the Cameroon DHS, 38% reported that they planned to become polygamous.<sup>18</sup>) Among the 11% of Zambian couples in which the wife reported wanting to space or to limit births and to use contraceptives when the husband did not, the wife's unmet need is qualitatively different than would be the case in strictly monogamous societies. From this, it could be argued that unmet need is more of an individual matter in polygamous than in monogamous societies.

This analysis was restricted to three countries. The Dominican Republic may be atyp-

\*These figures are derived from the percentages who desire to limit or space births and intend to use contraceptives within 12 months (Table 3).

It could be argued that an exception is women who are unsure of whether they are pregnant, but this is usually a small proportion of all women.

ical because the prevalence of sterilization is high: Forty-one percent of married women are sterilized, according to the DHS.<sup>19</sup> Other studies of unmet need among couples have already highlighted the relevance of both partners' desires,<sup>20</sup> but further analyses of other DHS surveys that include couples are warranted.

It has been pointed out that there is a problem in the traditional estimation of unmet need because estimates are based on a mixture of data regarding intendedness of the last birth or current pregnancy, current reproductive status and intentions with respect to a future period.<sup>21</sup> The current methodology at least partially answers this critique. It relies only on data regarding current status and future intentions, eliminating the use of the retrospective information.

Husbands' and wives' intentions have been treated in a symmetrical fashion. However, because women use most contraceptive methods, contraceptive services are typically oriented toward them. Further, given that women carry the pregnancy and bear the child, it could be argued that their desires need to be given precedence, if one must choose a one-sex model of unmet need. From this viewpoint, unmet need is asymmetrical for men and women, because the wife's unmet need is qualitatively different. But analyses with national DHS surveys in Sub-Saharan Africa and more intensive recent surveys (many with a qualitative component) in the Philippines, India, Bolivia and Ghana have shown that the husband's disapproval or his higher fertility desires can be important factors in women's nonuse of contraceptives. In these cases, the women's unmet need is certainly not the couple's unmet need; in many instances, her desires may only be satisfied by hidden use of contraceptives, with the risks that such use might entail.<sup>22</sup> In two of the countries examined here, it was twice as common for women as for men to report wanting to space or to limit births and to intend to practice contraception when a spouse did not. This is why unmet need estimates based on

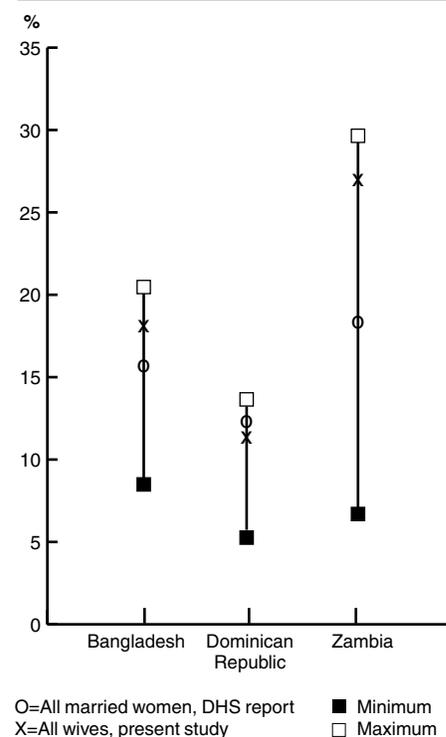
women's reports alone are closer to the maximum estimate of unmet need for couples than to the minimum estimate.

### Data Collection Considerations

Information from both partners in a couple is essential to estimate couple unmet need, since the accuracy of one spouse's perceptions of the other's desires is quite low.<sup>23</sup> However, problems of data collection and data quality exist in the estimation of individual unmet need from cross-sectional data; these problems are compounded when two partners are considered.

Data on the wantedness of the last birth from pregnant and amenorrheic women are problematic; it is to be hoped that the DHS will soon discontinue use of such data in determining unmet need. In contrast, a woman's reproductive status is an objective matter for which her report is usually assumed to be accurate.<sup>†</sup> Contraceptive use is a behavioral variable that is subject to reporting error, for various reasons. First, when contraception is not generally accepted in a society (as is still true in some parts of Sub-Saharan Africa), there is reason to conceal use from interviewers. Second, if a woman knows or believes that her husband disapproves of contraception, or if she thinks that he wants another child but she does not, she

**Figure 3. Minimum and maximum estimates of the percentage of couples with unmet need, and two estimates of unmet need based on wives' reports, by country**



may decide to use a method without his knowledge. She also may be unwilling to report such use to an interviewer. (The converse situation is also possible, although it is less likely, as we have seen).\*

Moreover, reported contraceptive use may be with someone other than the marital partner. To minimize this problem, couples were dropped from the analyses if either partner reported having had other sexual partners in the past month. In addition, the DHS question regarding contraceptive use (“Are you currently doing something or using any method to delay or avoid getting pregnant?”) is ambiguous in some instances. Specifically, the time reference is unclear for coitus-dependent methods. For example, if a couple usually uses condoms but did not for one or more recent acts of intercourse, are they users or nonusers? In such a situation, the husband may report use but the wife, perhaps more cognizant that there is a risk of pregnancy from a single act of unprotected intercourse, might report nonuse.

Several changes in data collection could help to minimize these problems. First, for coitus-dependent methods, use during a specific time period can be asked (e.g., in the last two weeks or at last intercourse). Additionally, for those who say that they have other sex partners, contraceptive use could be queried with regard to each partner. (The latter also applies to polygamous men.) Further, women can be asked directly regarding hidden use: “Does your husband know that you are using a method?” Such a question was asked in the in-depth DHS in Uganda, and 15% of women who reported current use of contraception said that their husbands did not know.<sup>24</sup>

The measurement of unmet need, as defined previously and as amended in this analysis, is also based on subjective statements—stated childbearing and contraceptive intentions. Longitudinal studies in Malaysia and Nigeria have shown the predictive value of couples’ fertility intentions to be reasonably high.<sup>25</sup> However, it is also true that intentions may change over time and with reproductive events. Data from the 1995 follow-up survey of women interviewed for the 1992 Morocco DHS demonstrated that

women’s stated intention to practice contraception has strong predictive validity for subsequent use.<sup>26</sup> This is the rationale for using intentions in the algorithm to define unmet need, even though it provides only an approximation of current unmet need, since there are individuals who intend to use within a year but not at the present time. Indeed, the data are limited with respect to women who are pregnant at the time of interview. For women early in their pregnancy and planning to breastfeed, there is little need to use contraceptives in the next 12 months. An alternative might be to ask these women their intention to use within 12 months after the birth.

One possible reason that intention to use contraceptives in the future is lower for husbands than for wives is that some men might interpret the question “Do you intend to use a method to delay or avoid pregnancy within the next 12 months?” as meaning them personally rather than they and their wife. Although that was the question in Bangladesh and Zambia, in the Dominican Republic the (translated) question to the man was “Do you (or your wife/partner) think that you will use any method in the next 12 months?” To avoid ambiguity, it would seem appropriate to always include this version of the question.

When there are discrepant reports of contraceptive use between spouses, how are these data to be treated in the algorithm for couple unmet need? It is probably best to use the woman’s report of contraceptive use to determine a couple’s unmet need, for the following reasons. First, husbands’ reports are likely to be less reliable than those of women. For example, husbands’ reports of use of periodic abstinence were considered unreliable in Ghana and Kenya because 50% or fewer actually knew the time of maximum fertility (ovulation) in the menstrual cycle, and they had less knowledge than women who reported using the method.<sup>27</sup> In addition, in many countries, a substantial portion of the excess reports of contraceptive use by husbands is attributed to condom use. Since their wives are not reporting condom use, it is likely that many condoms are used with other partners.

Furthermore, a nontrivial proportion of women report contraceptive use that is hidden from their husbands in some settings. Additionally, the majority of contraceptive methods are used by women, so their responses are more likely than their husbands’ to be accurate. On the other hand, several authors have documented that, at least in the Indian subcontinent, women tend to underreport condom use.<sup>28</sup>

On balance, it seems best to employ women’s reports of contraceptive use. An alternative would be to use the woman’s report and to add those in which the husband reported using a male method, although this would include many reports of condom use that were likely to have occurred outside the couple.<sup>29</sup>

## Conclusions

The concept of unmet need is just that—a concept. Respondents do not say they have an unmet need for contraception; they are nonusers of contraceptives who say that they want to have no more children or that they want to wait two or more years before the next birth. We have added to the definition the condition that they also say they intend to use contraceptives within the next 12 months. But a substantial proportion of women who do not fit into the category of unmet need (defined with retrospective information on the last pregnancy for all pregnant and amenorrheic women) nevertheless express an intention to practice contraception in the near future.<sup>30</sup> Therefore, the additional unmet demand for contraception could be larger or smaller than what unmet need usually indicates.

For several decades, men have been virtually ignored in many family planning programs; this is mainly because most contraceptive methods are for women, and services have been provided to individual women (not to couples) under the medical model of contraception. Thus, it is natural that unmet need would be calculated for women. However, it is now clear that husbands play a crucial role in fertility decision-making in most of the world. Therefore, expansion of the concept of unmet need to couples is long overdue.

The major implication of this research, together with other recent studies,<sup>31</sup> for family planning programs is that unmet need estimated from data for women does not correspond to couple unmet need estimates, and the size of the difference between the two is important to know. Clearly, if one spouse reports wanting no more children but the other disagrees, providing contraception may meet an individual need but may at the same time be problematic for the couple. In patriarchal societies, women often must defer to their husband’s childbearing desires or risk violence and divorce. In these circumstances, programs can address the problem in several ways. Mass media campaigns can target messages toward men, encouraging small family norms while implicitly acknowledging men’s

\*One can imagine a situation where, due to extreme lack of spousal communication on fertility desires, each partner believes that the other spouse wants more children (when in fact neither does) and each would surreptitiously undergo a sterilization procedure. In Colombia, it has been estimated that 35% of women having tubal ligations have not informed their husbands and that about the same percentage of husbands having vasectomies have not informed their wives (source: Trias M, 1995, personal communication).

(often disproportionate) power in reproductive decision-making and men's frequent desire for larger families than women. Alternatively, such campaigns could encourage an egalitarian and joint consideration of family size by spouses.

A testable hypothesis with programmatic implications also can be gleaned from examining couple unmet need. When there is agreement between spouses on the desire to limit or to space births and on the intention to practice contraception, there is a greater likelihood that one (or both) partners will actually utilize family planning services than when there is a similar level of unmet need among wives but less agreement between partners. In a prospective study, one could determine what proportion of couples eventually practice contraception among those in which the husband, the wife or both are considered to have unmet need.

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## Resumen

**Contexto:** La definición del término "necesidad insatisfecha" ha cambiado a través del tiempo, y ésta se puede calcular mediante el uso de los datos aportados por las esposas, los maridos y ambos cónyuges. Todo tipo de estas estimaciones repercute en la planificación de los programas.

**Métodos:** Se utilizaron datos obtenidos de recientes Encuestas Demográficas y de Salud (EDS) realizadas en Bangladesh, República Dominicana y Zambia para examinar una nueva definición de la necesidad insatisfecha—de manera de considerar solamente las respuestas relacionadas con los deseos de fecundidad y las intenciones de usar anticonceptivos. Se determina la necesidad para las esposas, para los maridos y para la pareja. La estimación mínima de la necesidad insatisfecha para la pareja ocurre cuando los dos miembros tienen una necesidad insatisfecha; la estimación máxima tiene lugar cuando sólo alguno de los miembros de la pareja tiene una necesidad insatisfecha.

**Resultados:** En los tres países son considerables las diferencias entre los esposos con respecto a las intenciones de uso de anticonceptivos y de fecundidad. Hay una mayor disparidad entre la opinión de los esposos y sus mujeres con respecto a la intención de practicar la anticoncepción que con respecto a sus intenciones de procrear. En Zambia, el 55% de las esposas que no usaban anticonceptivos indicaron que tenían intenciones de hacerlo dentro de un período de 12 meses, en comparación con el 36% de los esposos que no practicaban la anticoncepción. Estas cifras, en Bangladesh, son de 46% para las mujeres y 42% para los hombres; en la República Dominicana

na, son de 49% y 41%, respectivamente. Cuando se calcula la necesidad insatisfecha utilizando los datos que aportan las esposas y se la compara con los resultados utilizando la estimación mínima, la necesidad insatisfecha de las parejas se sobrestima en un 106% en Bangladesh, en 96% en la República Dominicana y en 246% en Zambia. Por otro lado, los cálculos basados en los datos aportados por las esposas fueron más cercanos a la estimación máxima correspondiente a las parejas.

**Conclusiones:** La necesidad insatisfecha calculada para las mujeres casadas difiere considerablemente de la necesidad insatisfecha calculada para los esposos y para ambos cónyuges como pareja. Las grandes discrepancias en estas medidas pueden ser un indicador del desacuerdo de los cónyuges o de la falta de comunicación con respecto a las metas reproductivas o al uso de anticonceptivos—temas que los programas deberán abordar si desean elevar las tasas de prevalencia del uso de anticonceptivos.

## Résumé

**Contexte:** La définition de la notion de besoin non satisfait a évolué avec le temps, et les estimations de ce besoin peuvent être calculées

en fonction des déclarations des épouses, des maris et des couples. Ces estimations peuvent toutes avoir des implications sur la planification des programmes.

**Méthodes:** Les données d'enquêtes démographiques et de santé (EDS) récentes du Bangladesh, de la République dominicaine et de Zambie servent à l'examen d'une nouvelle définition du besoin non satisfait, ne tenant compte que des réponses relatives aux désirs de fécondité et intentions futures de pratiquer la contraception. Le besoin non satisfait est déterminé pour les épouses, les maris et les couples. Une estimation minimale du besoin non satisfait des couples est obtenue lorsque les deux partenaires présentent ce besoin; un maximum est atteint si l'un des conjoints présentant un besoin non satisfait définit le besoin non satisfait du couple.

**Résultats:** Dans les trois pays, des différences substantielles ont été observées entre les époux quant aux intentions de contraception et de fécondité. La divergence est plus grande entre les maris et les femmes en ce qui concerne l'intention de pratiquer la contraception que celle d'avoir des enfants. En Zambie, 55% des épouses—par rapport à 36% des maris—qui

ne pratiquent pas la contraception déclarent avoir l'intention d'y recourir dans les 12 mois. Au Bangladesh, ces pourcentages s'élèvent à 46% pour les épouses et 42% pour les maris, et en République dominicaine, les proportions sont, respectivement, de 49% et 41%. Lorsque le besoin non satisfait calculé en fonction des déclarations féminines est comparé aux résultats obtenus sur la base de l'estimation minimale, le besoin non satisfait des couples est surestimé de 106% au Bangladesh, de 96% en République dominicaine et de 246% en Zambie. Les estimations fondées sur les déclarations des femmes sont en revanche plus proches de l'estimation maximale relative aux couples.

**Conclusions:** Le besoin non satisfait calculé pour les femmes mariées diffère considérablement de celui calculé pour les maris et pour les couples. Les profondes divergences observées dans ces mesures peuvent être signe de désaccord entre les époux ou d'un manque de communication quant aux objectifs de procréation poursuivis ou à la pratique de la contraception: deux questions auxquelles les programmes devront accorder leur attention s'ils entendent rehausser les taux de prévalence contraceptive.