

ORIGINAL RESEARCH ARTICLE

Defining Motivational Intensity of Need for Family Planning in Africa

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Abstract

Non-users of contraception differ greatly in their likely motivation to adopt a method or resume use. This study presents a new approach to defining high and low motivation groups by stated intention to use, past use, and unmet need, to determine how these groups differ in characteristics and in region of residence. Data come from 23 DHS surveys in sub-Saharan countries, with representation from the eastern/southern region and western/central region. The low motivation non-users, with less past use and less intention to use in the future, are more rural, less educated, and closer to poverty. Motivational intensity is lower in the western/central region, which contains far fewer intenders than the eastern/southern region and where many more report no past use and no unmet need. When used to guide planning, unmet need should be augmented with motivation, since the two classifications do not entirely overlap. Between 10 and 17 percent of current non-users of family planning are likely highly motivated to use, but are not captured in the unmet need classification. Program implications for these non-using groups are discussed. (*Afr J Reprod Health* 2014; 18[3]: 57-66)

Keywords: Unmet need, contraceptive use, intention to use family planning

Résumé

Les non-utilisateurs de la contraception ne sont pas unanimes par rapport à la possibilité d'adopter une méthode ou de continuer à l'utiliser. Cette étude présente une nouvelle approche à la définition des groupes de haute et basse motivation par l'intention déclarée à utiliser, l'utilisation antérieure et les besoins non satisfaits, afin de déterminer comment ces groupes ont des caractéristiques différentes et en ce qui concerne la région de domicile. Les données ont été recueillies 23 enquêtes de l'EDS dans les pays d'Afrique subsaharienne, avec des représentations de la région sud / est et la région sud / centrale. Les non-utilisateurs peu motivés avec l'utilisation antérieure diminuée et encore moins d'intention de l'utiliser à l'avenir, sont plus ruraux, moins instruits, et plus proches de la pauvreté. L'intensité de la motivation est plus faible dans la région de l'ouest / centrale, qui contient beaucoup moins de désireux que la région est / sud et où beaucoup de gens déclarent de ne pas avoir eu de besoin non satisfait dans le passé. Lorsqu'ils sont utilisés pour guider la planification, il faut augmenter les besoins non satisfaits par la motivation, puisque les deux classifications ne se chevauchent pas entièrement. Entre 10 et 17 pour cent des non-utilisateurs actuels de la planification familiale sont probablement très motivés à l'utiliser, mais ne sont pas retenus dans la classification des besoins non satisfaits. Les implications du programme pour ces groupes de non-utilisateurs sont discutées. (*Afr J Reprod Health* 2014; 18[3]: 57-66)

Mots-clés: besoins non satisfaits, utilisation de contraceptifs, planification familiale

Introduction

To date, a direct measure of motivational intensity for contraceptive use has not been identified, yet it is reasonable to suppose that some women are much more interested in adopting contraception than others are. A variety of plausible markers of higher motivation are presented here for various groups within the population of current non-users

of contraception. These non-using groups vary substantially in their size and in their demographic characteristics and fertility preferences. An understanding of these differences can help guide family planning operational policies and implementation.

Currently, motivation and unmet need for family planning are, to an extent, assumed to be synonymous. Policies and programs often aim to

increase use of family planning by reducing the number of women with unmet need, with the implicit assumption that those with unmet need are motivated potential users who are interested in using. However, past studies have suggested the limitations of this approach. Many women with unmet need face a dilemma of competing preferences, and are more strongly motivated not to use contraception than to do so, despite their desire to avoid pregnancy. In Africa, the region with the highest level of unmet need, more than half of women with unmet need state that they are not using family planning because of health concerns or opposition¹.

Unmet need is not a stagnant state and women may move in and out of unmet need, without any change in use status. For example, a woman may have unmet need one year and, while continuing to not use contraception, have no unmet need the next year because she has decided she would like to become pregnant. Furthermore, unintended pregnancies happen to women both with and without unmet need². Some studies have found that women with unmet need may also have ambivalent or contradictory fertility desires, lacking a strong, consistent desire to avoid pregnancy. This suggests that programs consider the level of motivation of non-users when assessing women's family planning needs^{3,4}. To this end, some studies have examined the importance of reproductive intentions in predicting future family planning use. At the population level, reproductive intention (as measured by the stated desire for no more children) is strongly predictive of the total fertility rate in developing countries, much of which is explained by contraceptive use⁵.

The literature is generally silent on how motivational intensity differs among non-users, but earlier multi-country analyses^{6,7} found that among non-users, stated intention to use was often more common than unmet need, and that overlap between the two groups was surprisingly limited. In most countries, over 25% of non-users were classified as without unmet need, yet they intended to use a method. When considering only

postpartum women, a similar multi-country analysis showed that this pattern persists in reverse, wherein not all women with unmet need report intending to use family planning in the future⁸.

Previous research^{9,10,11} indicates that the best predictors of adopting a method are first, past use of a method, and second, the woman's own statement as to whether she intends to do so. Thus, unmet need status on its own is a less reliable predictor of future use of contraception than past use or intention to adopt a method. However, considering unmet need status together with past use and intention to use can add value for program planning.

This analysis builds on previous research and includes unmet need as an indicator to create eight groups of non-users, based on intention, past use, and unmet need, all with yes/no separations. Within this framework, the groups are compared across a set of personal characteristics to show contrasts between them and to identify leads for program applications. Although it is important to remember that use of contraception is a dynamic state, and that women move in and out of it over time and for varied reasons, this research focuses solely on current non-users. For simplicity, we have not explored varying motivational levels among current users, among whom at least a minimal desire to use can be assumed.

Next, a second approach is used to select four of the eight groups that are likely to capture the highest motivation and the lowest motivation levels. These are, for high motivation, women who have past use and also intend to adopt a method, including both those with and without unmet need. Low motivation women are those who have no past use and do not intend to use in the future, again including both those with and without unmet need (Figure 1). These four groups are compared with a view to identifying program implications.

The analysis is directed to 23 sub-Saharan African countries, and where results differ sharply by region, attention is directed separately to the eastern and southern countries (ESA), vs. the western and central countries (WCA).

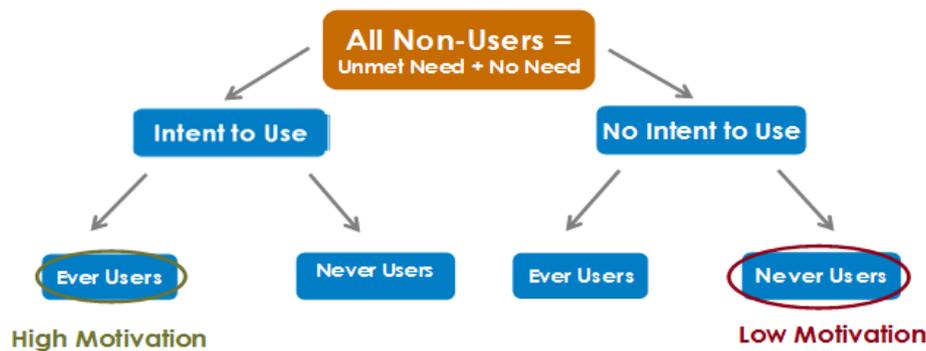


Figure 1: Defining High and Low Motivation

Methodology

The most recent Demographic and Health Surveys (DHS) data from 23 sub-Saharan African countries were used to characterize the groups of women with varying motivational intensities to adopt contraception in the future. These surveys, taken between 2003 and 2011, were analyzed using the Stata/SE 12 statistical software package. The analysis was restricted to married/in union women who were not using any method. These 23 countries¹² comprise most of the entire sub-Saharan Africa region. They contain 660 million people or 73% of the total population of sub-Saharan Africa, including eight of the ten largest countries (Nigeria, Ethiopia, Tanzania, Kenya, Uganda, Mozambique, Ghana, and Madagascar. Only the DR Congo and South Africa are missing from the 10 largest countries).

All non-users were placed into one of the eight categories based on intention to use, unmet need, and ever use, each by a yes/no division (Figure 2). Intention to use was determined by whether women responded yes to the question “Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?” Unmet need was defined according to the 2012 DHS revised definition¹³ and refers to fecund married/in union women who would not like to have a birth in the next two years but are not using any method of family planning. Pregnant and postpartum women who reported that their current pregnancy or last birth was either unwanted or mistimed are also included in this definition. The no-need group included fecund married/in union women who either want a child within two years,

or are currently pregnant with a wanted and properly timed birth, or are postpartum amenorrheic whose last birth was wanted at that time. Finally, ever use status was determined by whether women reported past use or not.

Each of the eight subgroups is described below according to its socio-demographic profile and fertility behavior and preferences. Summary measures are primarily simple unweighted averages across all countries, sometimes by region. As explained above, among the eight categories two were identified, groups 2 and 4, as most likely to represent the highest motivation to adopt a method: women with past use, who intend to use in the future, from both need groups. Two other groups were identified as representative of the women least likely to adopt a method, groups 5 and 7: women who have never used and do not intend to use, again from both need groups. The presentation of results below is in two parts: first a compressed overview that deals with all eight groups, and second, a more detailed examination of differences between the highest- and lowest-motivation groups.

Results

Comparisons among All Eight Groups

Size: At the aggregate level, non-users are split almost evenly between those who intend to use a method and those who do not. However, there are marked differences between the two regions. As shown in Figure 2, the ESA bars are concentrated to the left of the x-axis, in the four intender groups, indicating that over two-thirds of ESA

women intend to use, compared to just over 40 percent of WCA women. (Note: for each region, the sum of the bars in Figure 2 comprises 100% of the non-using population). Although there is relatively little difference in size among the four intending groups, Group 2 is the largest, composed of women with past use and with unmet need. In contrast, nearly 60 percent of non-using WCA women fall in the four non-intender groups, due

largely to Group 7, for never-users having no unmet need. That group contains a full 27% of all non-using WCA women, whereas very few fall into Group 6, for ever-users who also have an unmet need. This shows a consistent lack of interest in contraception among the non-using women in WCA, in that non-intention to use in the future parallels low levels of use in the past.

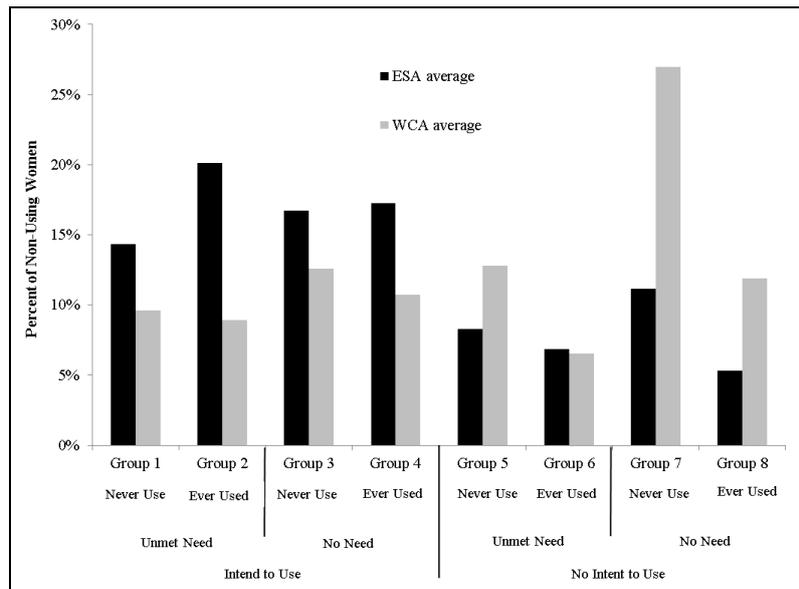


Figure 2: Relative Sizes of Non-Using Groups

It is of interest that among all non-users, high motivation potential users are represented in roughly equal proportions in both the unmet need and no need groups, evidenced by the roughly equal sizes of groups 2 and 4 in ESA and the roughly equal sizes of groups 2 and 4 in WCA. Thus, focusing solely on women with unmet need could lead to misestimates about who the most likely adopters of family planning may be and how many there are.

The results below examine non-using women based on each of the three dimensions used to construct the eight groups.

Stated Intention to Use: The differences that distinguish women who intend to use from those who do not tend to vary. Women who intend to use are not necessarily more numerous. In this set of countries, the non-users are split about evenly between intenders (55%) and non-intenders (45%).

Intenders stand out principally by being younger, with smaller families. Also, their ideal family sizes are much smaller than those of non-intenders (though still high). Women who intend to use do not report more pregnancy terminations than the non-intenders do; in fact the latter group reports slightly more. The two groups do not differ much in the percent urban, but fewer intenders are in the bottom wealth quintile. Far more intenders have had recent contacts with family planning providers.

Past Use: Women with past use differ sharply from never users, quite independently from region, intention, or unmet need. They are older, with somewhat more children (though the difference is small due partly to the fact of past use). They report decidedly more pregnancy terminations than the never-users do, reflecting their higher ages and, probably, a greater reliance upon induced

abortion. Their socio-economic circumstances are more favorable, as many more past users are urban dwellers, and fewer fall into the lowest wealth quintile. They are also in more frequent contact with staff at family planning clinics. Interestingly, their ideal family sizes are lower than those of the (younger) never users; that difference is consistent with their greater motivation to use a method.

Unmet Need: Women classified with unmet need are consistently older than those with no need, and they have considerably more children. Both differences reflect the presence of many younger couples in the no-need group, who are still building their families. By small margins, unmet need women have smaller ideal family sizes than the other women do, but all ideal numbers are quite high, which has implications for future fertility levels. Differences are small between the two groups for urban residence and for membership in the poorest wealth quintile. Notably, the two groups are nearly identical in the percent reporting past pregnancy terminations and in recent contact with family planning staff. Equally remarkable, the percent having no education is almost identical in all paired group comparisons (apart from the regional disparity noted below).

Thus to some extent, those classified with and without unmet need are not much differentiated by their personal characteristics, and future adopters will come from both groups. There is a time flow dimension at work since many women with no need will achieve their desired family size as they reach higher parity levels and then become more interested in contraceptive use.

The regions differ substantially. Perhaps the most telling regional disparity is the very low level of education in the WCA countries. Fully two-thirds (67%) of all non-users there report no education, compared to less than a fourth (23%) in the ESA countries. This gap holds true within each of the eight groups. Ideal family size in WCA is also much higher than in ESA in every subgroup. Yet the WCA non-users are more urban and have fewer members in the bottom wealth quintile, again in nearly every subgroup, which is puzzling.

However it must be remembered that this analysis is concerned only with current non-users. Non-users may be more highly selected in ESA

since contraceptive use is generally higher there, and especially so in urban areas, leaving the residual group of non-users more rural and therefore poorer than the overall population in ESA. The relative picture for non-users is apparently different in WCA.

More pregnancy terminations are reported in WCA than in ESA, which may reflect both less contraceptive protection there and the greater proportion of non-users who live in urban settings. Contacts with family planning staff are more common in ESA countries, in every subgroup, though at rather low levels.

To summarize, this examination of all non-users looks at the eight groups by the three markers of motivation. They separate out those non-users who are more likely to adopt a method in the future. A contrast of the profiles of women who intend to use, or have used in the past, or have unmet need shows that all three groups have smaller ideal family sizes than their comparison groups do, but they differ on other criteria, as follows.

Intenders are younger, with smaller families than either the past use group or the unmet need group. Intenders and unmet need women do not report more pregnancy terminations than other women do, but women with past use report considerably more. Past users tend to be more urban than never-users, but intenders and unmet need women differ little in this respect from their comparison groups. Intenders and past users do not fall into the bottom wealth quintile as much as their comparison groups do, but the unmet need group do. Intenders and past users are also in more frequent contact with family planning staff than other women are, but this is not true of the unmet need group.

Important program implications follow from these differences. Women who are characterized by one of the three proposed markers of interest to adopt or resume a method do not completely overlap, so diverse outreach methods must be employed. Non-users exist across a broad range of age, parity and experience with pregnancy terminations. The groups differ somewhat in urban vs. rural residence and in their household wealth status, as well as in their education (by region). Not all unmet need women say they intend to use,

and not all intenders have unmet need. These groups differ in the proportion that have had past experience with contraceptive methods. Further, unmet need women are not in more contact with family planning providers than women in the no-need group are, and unfortunately, none of the eight groups shows much contact with providers.

Comparisons among Very High and Very Low Motivation Groups

To sharpen the contrasts between high and low motivation characteristics, a deeper analysis is made of two groups regarded as having especially high motivation to adopt a method, vs. two groups regarded as having especially low motivation (Figures 1 and 2). Groups 2 and 4 are viewed as highly motivated non-users, the most likely women to adopt contraception in the future, since they both intend to use and report past use. They are clearly willing to use contraception and are also familiar with it. In contrast, groups 5 and 7 are viewed as having very low motivation, lacking past use and not intending to use.

Socio-Demographic Profile

Motivation to use a contraceptive method clearly links to certain socio-economic traits. The low motivation non-users, compared to the high motivation ones, are more rural, less educated, and closer to poverty (Figure 3) and as such, may also have less access to public services. This difference between the low and high motivation groups holds true within the unmet need group and within the no-need group. For example, the percent of rural women is 65% in the high motivation group vs. 79% in the low motivation group for unmet need women, and 63% vs. 83% for no-need women. The consistency of this difference suggests certain similarities between the no need and unmet need groups, notwithstanding their differences in age and life circumstances as described in the previous section. It also implies that a woman’s own statement as to her intention to use, when considered indicative of her motivational intensity, may be useful to help understand the likelihood of adopting contraception within each of the various socio-economic groups.

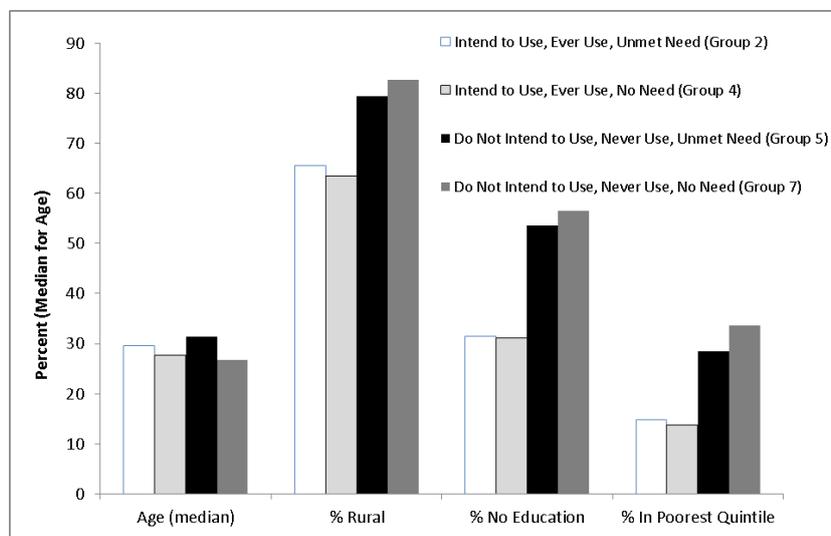


Figure 3: High and Low Motivation Groups by Socio-Demographic Characteristics

Fertility History and Preferences

Within the DHS questionnaire, there are several proxies for contraceptive motivation and for the likelihood of adopting family planning. Six of these follow; see Figure 4 for the first three and

Figure 5 for the remaining three. These proxies were examined in conjunction with the constructed high and low motivation groups.

Ideal number of children: The low motivation group, living under the more difficult circumstances of greater poverty and lower

education levels, favors larger families than the high motivation group. The ideal number of children is decidedly higher in the low motivation group. Again, this holds true separately within the unmet need group and the no-need group. One can reverse the relationship and say that women who desire larger families are less likely to want to use contraception.

Recent birth: Actual fertility is also higher among women with low motivation. A somewhat higher proportion of low motivation women have given birth recently than the high motivation women have; this is a strong correlate to the prevailing fertility rate, especially since these women are comparable in age. Actually, over one-fourth of both high and low motivation women (27% to 33%) have given birth within the last year and should be good candidates for postpartum programs.

Unwanted births: That women with unmet need are more likely to have recently had an unwanted birth is expected, since unmet need is defined partly by the unwantedness of the last birth. However the prevalence of unwantedness according to unmet need, within each motivation group, is of special interest. Among women with high motivation 15% of those with unmet need did not want their last birth, vs. 1% of those with no need. The picture is similar for those women with low motivation: 13% of those with unmet need did not want their last birth, vs. 1% of those with no need. Thus substantial numbers of births were not wanted, and as expected they are concentrated in the unmet need group. Few members of the no-need groups, largely younger women still building their families, regretted their most recent births (though they may have been ill-timed, a different response that is considered in the usual construction of unmet need.)

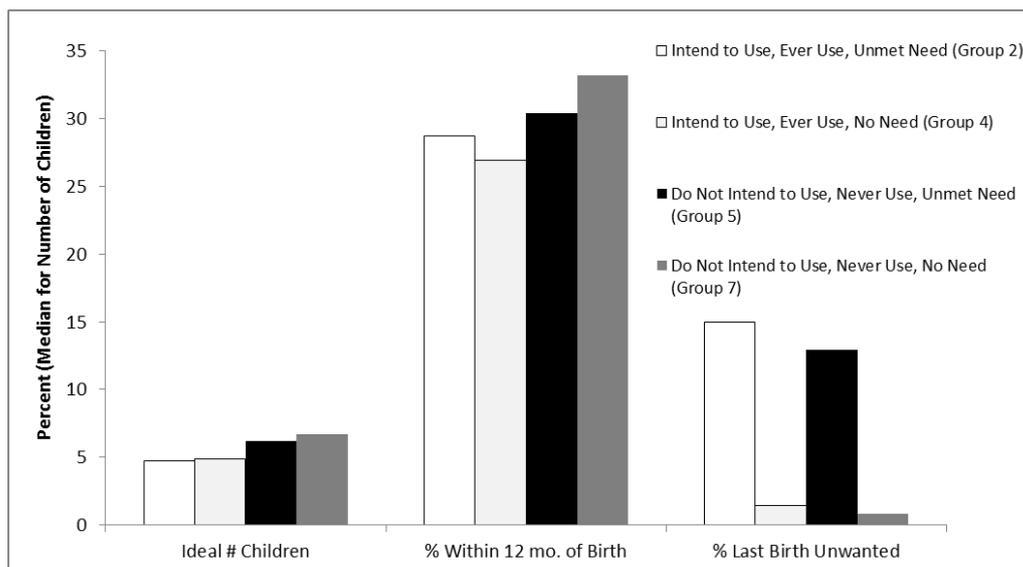


Figure 4: High and Low Motivation Groups by Fertility and Preferences

Unmet need for limiting births: Unmet need is typically disaggregated by spacing vs. limiting objectives. If the limiting objective dominates, so that a substantial proportion of all unmet need within a group comes from women who wish to have no more children, that indicates stronger motivation to use a method in that group than in another group where spacing dominates. However, it turns out that the ratio of limiting to spacing

objectives was nearly identical in the high and low motivation groups. This similarity in ratios may mask offsetting differences in who has unmet need in the first place, either by region or by personal characteristics.

Recent contact with a family planning worker: Women were asked whether they had had contact with a health facility in the last 12 months and whether they were counseled on family

planning at the health facility. The low motivation group had the least exposure to family planning counseling, with only 12% to 16% reporting a contact, compared to 29% in the high motivation group. Still, both levels are quite low. Nevertheless, women who have recently had counseling or other contacts with family planning staff are more likely to seek them out in the future. Further, staff often know which women are better prospects for adopting a method (as with recently

delivered women, or past users), so recent contacts may serve as a proxy for staff initiatives.

Termination of pregnancies: 14% to 20% of women in these groups reported pregnancy terminations, including miscarriages, abortions, and stillbirths. The high motivation group, with women who are more urban and better educated, reported more terminations. This may suggest that most terminations are due to induced abortions, although the data are limited and unreliable.

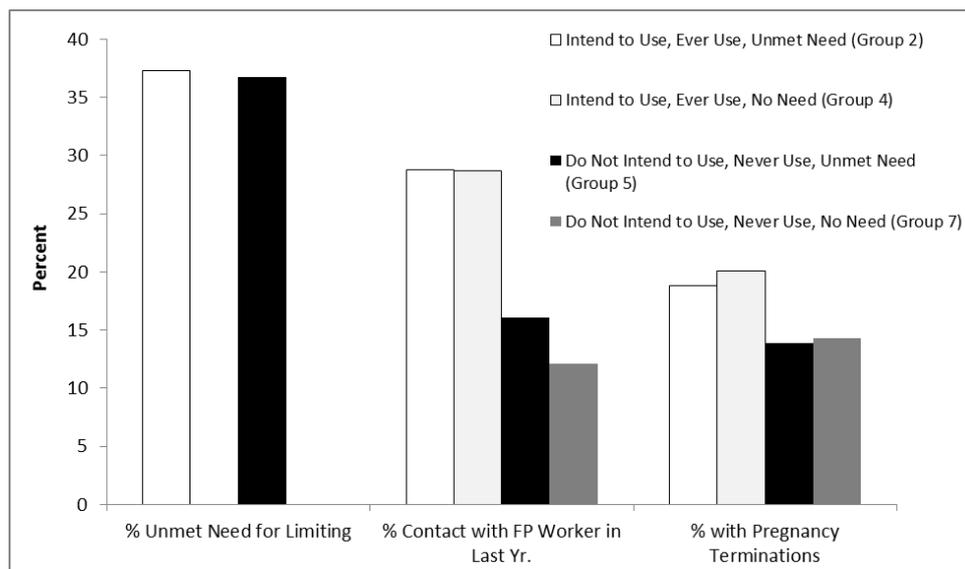


Figure 5: High and Low Motivation Groups By Need, Family Planning Contacts, and Pregnancy Terminations

Discussion

Unmet need has commonly been used for overall program planning to assess the magnitude of potential new adopters of family planning. However, not all women with unmet need have identical desires to use contraception, and not all potential users have unmet need. This exploratory exercise considers the characteristics of women who likely differ greatly in their motivation to use contraception. By identifying high and low motivation groups according to past use, intention to use in the future, and unmet need, large and systematic differences were discovered. In addition, a current of strong regional differences runs throughout the data. The eastern and southern countries show more past use and more promise of future use of contraception than do the western

and central countries. For program actions, the constraints fall somewhat more upon the demand side in WCA and more upon the supply side in ESA.

Motivation to use a contraceptive method clearly links to certain socio-economic traits. Regardless of region, the low motivation non-users are more rural, less educated, and closer to poverty. As such, they likely have less access to public services both in physical proximity and in affordability of travel costs and fees. This unfavorable syndrome affects not only the use of contraception but also the use of, and access to, broader health services, with implications for child and maternal mortality.

Program interventions should be tailored to fit the diversity of non-using women. Groups of non-users were characterized along multiple lines

pertaining to their sizes and likely interest levels. Because non-users differ substantially, with some having no interest at all in contraception, women with higher motivational intensity deserve priority in certain program strategies, especially those related to improving supply barriers. A closer analysis of group sizes can help guide levels of investment in outreach, communication, and service delivery.

At the same time, the body of current users deserves attention. While this study has focused upon non-users of contraception, that needs to be augmented by attention to current users. Jain *et al.*¹⁴ have done so in a recent publication, stressing the importance of reducing unnecessary discontinuations among women whose current method is unsatisfactory. In addition, some women currently classified with no need may be highly motivated, wishing to use a method soon after their next pregnancy. All these groups of women with a high motivation to adopt family planning deserve particular attention by program planners, within the context of a broad-based outreach to whole populations. For countries where use of contraception remains persistently low, the results here can offer family planning program managers and funders new information about the women for whom outreach and services are most critically needed in order to meet their fertility preferences.

Conclusions

Program Implications

While unmet need estimates have been very useful globally, they do not offer specific field strategies for action programs. Motivational indicators can help shape program strategies in two ways: (a) for facilities, and (b) for fieldworkers in contact with individual women.

Facilities: A broadened postpartum/postabortion framework is the chief organizing principle for much program action. Several types of facilities are in contact with pregnant/childbearing women: prenatal, delivery, postpartum, immunization, and well-baby clinics. Starting with a cohort of women seen either prenatally or at delivery, substantial proportions

are seen again either postpartum or in immunization clinics. Facilities that see women for abortions or treat their effects are an obvious channel, notwithstanding the frequent difficulties of establishing contraceptive services, due partly to different institutional priorities and clinical services infrastructure.

Workplaces that include childbearing age women, such as factories, schools, and offices are important channels for both education and services, especially with the presence of educated and higher income women among the high motivation groups. Where they exist, some insurance plans cover contraception as an employee right and/or as a means of reducing costs from unintended pregnancies.

Fieldworker contacts: Fieldworkers often know the situation of their clients, whether they did or did not want the last birth, whether they wish to stop all childbearing, whether they have used a method before, and whether they are open to adopting a method soon. They can identify women who want a child within two years but nevertheless wish to space currently or sometime over the next year, all of whom are omitted in the unmet need estimates. They may also know whether the woman is already menopausal, not living with her husband, or otherwise unconcerned with pregnancy prevention. The fieldworkers can directly dispense pills, condoms and sometimes other methods, and can offer referrals.

Mass media messages can be attuned to the motivational markers discussed above, tying messages to recently delivered women (you can wait before having the next child, you can choose when to become pregnant again) and for women who have discontinued use (if your last method was unsatisfactory, alternatives are available). These focused messages can supplement the broader ones that encourage contraceptive use in general.

It must be remembered that there are two "markets" in the near future for contraceptive adoption: some new users will come from current non-users, but additional ones will come from the annual dropouts among current users. There is a constant circulation in and out of the using group due to the high discontinuation rates of current methods and to changes in women's life

circumstances. Program attention must go to both types, to address all those who need to find an appropriate method before they encounter an unplanned pregnancy.

The degree to which national programs can implement measures such as these will carry implications for the course of fertility in sub-Saharan Africa. Approaches that are more finely attuned to those women and couples who are more highly motivated will improve both program efficiency and overall impact.

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Contribution of Authors

Study conception and design are attributed to Bernice Kuang, John Ross, and Elizabeth Leahy Madsen. Data were collected and analyzed by Bernice Kuang and the manuscript was prepared by John Ross, Bernice Kuang, and Elizabeth Leahy Madsen. All authors have approved the manuscript.

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