# AN ALTERNATIVE APPROACH TO MEASURE UNMET NEED FOR FAMILY PLANNING IN TURKEY

Banu Akadlı ERGÖÇMEN \*
Alanur Çavlin BOZBEYOĞLU \*\*

In this study unmet need for family planning in Turkey is analyzed employing the standard formulation of unmet need with a different approach. The purpose of the study is to explore the difference in the size of unmet need when it is estimated for non-users and for users of traditional method who have intention for using a modern method. An alternative approach is preferred in view of the fact that the method-mix of the country affects the magnitude of the estimated unmet need. Thus, to take country-specific situation in family planning method use into account enables to estimate the extent of potential demand for family planning in a more realistic way. The analyses in this study is based on married women aged 15-49 from the 2003 Turkey Demographic and Health Survey. The results put out that in general, the unmet need estimated with the inclusion of women who want to replace their traditional family planning method with a modern one (18.9 percent) reflects a relatively large group of unmet need for contraception compared to that of estimated with the standard formulation (7.1 percent<sup>a</sup>). Difference reveals itself not only in the magnitude of unmet need but also for the selected background variables such as region, type of place of residence, education and age. It is observed that the method-mix of the country affects the magnitude of the estimated unmet need.

## INTRODUCTION

To know the magnitude of demand for family planning is the main criterion in achieving a successful and all-round family planning program. Since the 1960s, initially KAP-gap and subsequently unmet need has served as a means in estimating the size of this demand. The surveys on knowledge, attitudes and practices (KAP) of family planning that were conducted in a number of countries throughout the 1960s and 1970s pave the way for the estimation of unsatisfied demand for fertility control. The data sets of these surveys enabled the measurement of magnitude of discrepancy between reproductive preferences and the actual practices with the information collected on the family size preferences of women in addition to information about women's knowledge of, attitudes towards, and practice of family planning methods. Following the KAP surveys, data collected under the World Fertility Survey (WFS), Contraceptive Prevalence Survey (CPS) and Demographic Health Survey (DHS) were then used for the estimation of difference between reproductive preferences and contraceptive behaviour. The initially referred term KAP-gap was followed by the term "unmet need" in the late 70s (Westoff, 1978) and the configuration of unmet need passed through certain refinements (Westoff and Pebley, 1981; Westoff, 1988; Westoff and Ochoa, 1991) throughout the last three decades of the twentieth century becoming a very practical yardstick for assessing the family planning programs and strategies as well as the future demand for family planning. The measure is widely being used especially in developing countries by different circles such as, policy makers, suppliers and academicians since it can be easily estimated with the survey data enabling international comparison as well. According to the current formulation, unmet need provides an estimate for the magnitude of women who are motivated to

<sup>\*</sup> Assoc.Prof.Dr., Hacettepe University Institute of Population Studies, Ankara, Turkey

<sup>\*\*</sup> Dr., Post-doctoral fellow of the Turkish Academy of Sciences, Ankara, Turkey

control their fertility either by postponing the next birth for at least two or more years or ceasing further childbearing yet not using any contraception though they are exposed to the risk of pregnancy.

Westoff (2006) in his recent study, where trends in unmet need and demand for family planning are presented for 58 developing countries in a comparative way using the Demographic and Health Survey (DHS) data, applied an additional measure. This new look, puts emphasis on unmet need for modern methods excluding withdrawal, periodic abstinence and folk methods. These methods are treated as nonuse and their prevalence are added to total unmet need. Highlighting modern methods is a further improvement in the technique which will clearly bring the demand to light. This recent application of unmet need put all traditional method users into the unmet need category disregarding their intention and preference towards the method.

Our study approaches the process of unmet need by including a method preference dimension into it. Among a number of factors ranging from individual level ones to contextual and to macro level, personal preference for contraceptive method determines the use in a straight way. When demand for contraception is of foremost importance in estimating unmet need for a country or community then method preference turns out to be a crucial issue. If a certain proportion of population is in a determined attitude on the method they use this is as a fact to be considered; otherwise, assuming them in the unmet category for modern methods may be misleading. In this study we aim to estimate the unmet need for Turkey by developing a country-specific model through expanding the definition of unmet need to include traditional method users, on the basis of their intention to use modern method. In this study the unmet need for contraception is estimated for selected background characteristics of women such as age, education, and region. The approach used in this paper is generally based on the algorithm used by Westoff and Ochoa (1991) for the classification of unmet need among married women. However, if the intervening country-specific characteristics have a potential to cause misleading interpretation of the end result, a standard model is either not applicable by its all means or does not produce reliable results. Thus, taking into account the method mix in Turkey, this study attempts to estimate the size of the unmet need by including the traditional method users who are willing to shift to a modern method.

## **METHOD**

#### **Data Source**

This study uses data from the "Turkey Demographic and Health Survey, 2003" (TDHS-2003) which is a nationally representative survey of 10,836 households and 8,075 ever-married women between ages 15-49. The sample design of TDHS-2003 was based on a weighted, multiple stage, and stratified cluster sampling approach. The sample design enables to make analyses for various domains comprising urban and rural areas, and regions. TDHS-2003 sample allows analyses for the conventional five regions<sup>b</sup> in the country as well as for the 12 geographical regions (NUTS1)<sup>c</sup>.

The present analysis is restricted to the 7,672 women who were currently married at the time of the survey. Estimation of unmet need is a process deduced through linkage of responses to different but inherently related questions of the survey questionnaire.

## **Need for an Alternative Approach in Turkey**

In Turkey contraceptives have become more widely available and socially acceptable in the last twenty-five years. Parallel to this feature, small family size appears to be the norm in most

parts of the country. TDHS-2003 results indicate a strong desire for two-child family; more than half of the interviewed women consider two children to be the ideal family size. In accordance with the small family size norm, more than two-thirds of currently married women do not want to have any more children (Table 1). At the same time, there are many women who do not use family planning even though they state that they would like to delay or limit their future births (14 percent and 63 percent respectively).

Table 1. Selected demographic indicators, TDHS-2003

Fertility	
Total fertility rate	2.23
Mean number of children (ever-married women aged 40-49)	3.54
Contraception (among currently married women)	
Current use of any contraceptive method (percent)	71.0
Current use of modern method (percent)	42.5
Fertility preference	
Want no more (percent)	63
Want after 2 years (percent)	14
Ideal number of children	2.5

Source: Hacettepe University Institute of Population Studies, (2004)

The contraceptive prevalence rate can be considered high in Turkey; overall 71 percent of married women use a method of contraception and the majority of users rely on modern methods (Table 1). However, withdrawal, which is known to be an ineffective contraceptive method with its high failure rate, is the most popular method among method users. According to TDHS-2003, 38 percent of all method users and 96 percent of traditional method users rely on withdrawal. In spite of the fact that knowledge of modern methods is almost universal in Turkey, the level of current use for modern methods is not as high as it can be traced from the level of knowledge. From both the demand and supply side of contraception, traditional method users have an unmet need for modern contraception. While 7 of every 10 currently married women are using a contraceptive in Turkey, 3 of every 10 method user women rely on traditional methods. Additionally, considerable group of traditional method users prefers to use a modern method instead. For instance, survey results reveal that 41 percent of the traditional method users would like to use a modern method. It has been shown that the demand of traditional method users who prefer to use a modern contraception change the magnitude of the unmet need group in Turkey significantly (Ergöçmen and Kulu, 1989).

The level of unmet need for Turkey, calculated within its standard configuration, seems to give an under estimated level, owing to the method mix of the country –where there is heavy reliance on withdrawal. Among countries that have a DHS survey after 2000, there are two countries, Vietnam and Colombia, with lower figures for unmet need than that of Turkey (MEASURE DHS, 2006). However, compared to other countries with similar or lower levels of unmet need, the level of modern method users is rather low. It is apparent that countries with lower levels of unmet need are the countries with higher levels of method use and in particular with higher levels of modern method use. In countries where unmet need is less than 15 percent, the proportion of modern method users is well above two thirds of all women. The only two exceptions are Turkey and Armenia. Statistics show that a remarkable group is ignored when the standard

calculation of unmet need for contraception is employed. In some previous studies, contraceptive users also considered to have an unmet need if they are using unsuitable, incorrect or unsafe methods (MEASURE DHS, 2006).

## **Formation of Unmet Need**

The term "unmet need" was first used by Bruce Stokes in 1977 in his analysis on both KAP surveys in developing countries and fertility surveys in US (Robey, Ross and Bhushan, 1996). In 1978 Westoff used the concept of "unmet need for family planning" in his comparative study based on WFS data of five Asian countries. In that calculation he excluded the unmet need for spacing births, and unmet need of pregnant and amenorrheic women. Unmet need was defined as a group of women who are currently married, not pregnant, and not amenorrheic and who would like to limit their reproduction. As stated by Casterline and Sinding (2000), Westoff excluded pregnant and amenorrheic women on the grounds that they had no immediate need for contraception. The importance of the difference of unmet need for spacing and limiting births came into discussion by Westoff and Pebley in 1981. In that study 12 alternative definitions of unmet need were produced. In 1982, Nortman focused on the significance of pregnant, amenorrheic, and breastfeeding women as a potential group in need for contraception because they would constitute a demanding group immediately after their non-susceptible status ends. Making use of the DHS data, Westoff and his collaborators made the necessary refinements in the measure of unmet need and developed a new algorithm. That newly formed algorithm allowed for unmet need for the spacing of births and, pregnant and amenorrheic women were included among the women with unmet need if their current or most recent pregnancy was unwanted or mistimed (Westoff 1988, cited by Casterline and Sinding, 2000). Conventional KAP-gap measures of the 1960s and 1970s are more complicated than the unmet need indicators generated from the WFS (Westoff and Ochoa 1991). This algorithm has been applied to several rounds of DHS surveys and it was also used in comparative studies (Westoff and Ochoa 1991; Westoff and Bankole, 1995).

The unmet need for Turkey was also calculated by this formulation. According to this formulation unmet need group includes all fecund<sup>d</sup> women who are married or living in union, who are not using contraception and who either do not want to have any more children or want to postpone their next birth for at least two more years. Women who do not want to have any more children are considered to have an unmet need for limiting births and women who want to have more children but not earlier than two years are considered to be in the group that has an unmet need for spacing births. Pregnant and amenorrheic women are included to the unmet need group unless their pregnancy or last birth intended. If their pregnancy or last birth is mistimed, those women are considered to have unmet need for spacing births. On the other hand women whose pregnancy or last birth was unwanted were regarded as to have unmet need for limiting births. In this formulation women whose pregnancy or last birth is unintended due to a contraceptive failure are not included into the unmet need group.

The expanded definition of unmet need is criticized for being a measure designed for married women only. However the unmet need group should include all sexually active women regardless of marital status and unmet need of men should be calculated as well (Ngom, 1997). Another significant criticism is on whether traditional method users have an unmet need or not. In 1985, Bryan Boulier argued that users of inefficient traditional methods have unmet need for contraception (cited in Robey, et. al., 1996). Not only users of inefficient contraception but also users of inappropriate practices are considered as having an unmet need by some researchers. Dixon-Mueller and Germain (1992), mentioned that some contraceptive users could be considered to have an unmet need if they are using an unsuitable, incorrect or unsafe method. Similarly, Karen Foreit (cited in Robey, et. al. 1996) declares that met need is possible only by "appropriate

contraception". Sinding and Fathalla (Sinding and Fathalla, 1995) are other supporters of above mentioned view, suggesting the inclusion of people into the unmet-need category who are already using a contraceptive but who are dissatisfied with their method.

## **Alternative Formulation for Unmet Need**

Unmet need group in this study includes fecund women who are married or living in union, who are not using contraception and who either do not want to have any more children or want to postpone their next birth for at least two more years or who are using a traditional method and who want to change that method with a modern one.

Women who want to have no more children are considered to have an unmet need for limiting births and women who want to have more children but not earlier than two years considered as to have an unmet need for spacing births. Pregnant and amenorrheic women are included to the unmet need group unless their pregnancy or last birth intended. If their pregnancy or last birth is mistimed, those women are considered as to have unmet need for spacing births. On the other hand women having an unwanted pregnancy or last birth are considered within unmet need for limiting births. The women whose pregnancy or last birth is unintended due to the contraceptive failure are not included into the unmet need group according to this formulation. Definitions of unmet need for limiting and spacing births and, unmet need of pregnant and amenorrheic women are same with the definitions in that of Westoff and Ochoa's (Westoff and Ochoa 1991).

Although traditional methods are considered as unsafe, people using these methods efficiently should not be overlooked. Contraceptive failure rate of withdrawal is 13.5 percent in Turkey (Ergöçmen and et. al, 2004). Thus, not all of the traditional method users can be considered as having an unmet need for a modern contraception. Data of TDHS-2003 is suitable for finding out this group. In the Ever-married Women Questionnaire of the TDHS-2003, the question: "Would you like to use a different method of family planning than the one you are currently using?" is directed to all currently married women who use a contraception at the time of the survey. Women who would like to use a different method also mentioned the method they would prefer. Women who use traditional method but would prefer to change it with a modern one are considered to be in the category of unmet need for a modern contraception. Thus, total unmet need is the sum of group of traditional method users who have unmet need for a modern contraception and group of non-users who have unmet need for any contraception. In other words, total unmet need refers to both unmet need of non-users for any contraception and the unmet need of traditional method users for modern contraception.

## **RESULTS**

Result of the analysis enables both the comparison and the summation of unmet need of non-users for any contraception and the unmet need of traditional method users for modern contraception. Unmet need for non-users is calculated by the standard formulation of unmet need. As it is seen in Figure 1, 7.1 percent<sup>a</sup> of currently married women who are not using a contraceptive method at the time of the survey have an unmet need for contraception. Of the currently married women using a traditional family planning method, 11.8 percent, is in the unmet need category and, they are in particular in need of a modern contraception. In Turkey, 28.4 percent of married women are traditional method users and furthermore 4 of every 10 traditional method users declare that they would like to change their current method preferably with a modern one.

When both groups are considered, total unmet need for family planning, for women married at the time of the survey is 18.9 percent (Figure 1). In other words nearly one fifth of married women takes place within the unmet need category. As regards these results, the first significance of the expanded calculation of unmet need is that it reflects a relatively large group of unmet need for contraception compared to that of estimated with the standard formulation.

This differentiation between the two estimations of unmet need shows itself according to the women's background characteristics which are type of place of residence, region, age and women's level of education.

The percentages of unmet need are different according to type of place of residence (Table 2). As regards the total unmet need, more women living in rural settlements take place in the unmet need group compared to women living in urban settlements (20.6 and 18.2 percent respectively). Unmet need of non-users is higher among women living in rural settlements compared to that for women living in urban settlements. On the contrary, unmet need for modern contraception does not reveal a sharp difference between traditional method users of urban and rural resident women.

Turkey has diverse geographical, climatic, cultural, social and economic characteristics in different parts of the country therefore a regional breakdown is usually necessary in the analyses. In Turkey conventionally five regions are distinguished, reflecting to some extent differences in socio-economic development levels and demographic conditions among sections of the country. However these regions are still the territories with pretty big areas bearing different characteristics. The TDHS-2003 was designed in such a way that it enables analysis in 12 sub-regions as well as five major regions. The provinces of Turkey were classified into 5 regions and 12 sub-regions where the sub-regions were embedded in the initial five major regions. Naturally, it is almost impossible to obtain a uniform socio-economic structure even in small areas, but to have somewhat small areas with more similar characteristics facilitates designing of a functional policy for these places. Thus, in the case of Turkey in general and unmet need in particular, sub-regions are useful to understand inter and intra regional variations and accordingly are efficient for developing functional strategy for family planning. So, in addition to the conventional break-down of regions, findings are presented for NUTS1 level.

Among the conventional five regions, total unmet need is the highest in the East region where more than one fourth of women seem to be within the unmet need for contraception (Table 2). The North, South, West and Central regions subsequently follow the East region. Distribution pattern of unmet need into regions is totally different between the non-users and traditional method users. The East region has the highest level of unmet need within the non-users relative to other regions. However in the case of traditional method users of the East region, it is evidently different; they have the lowest level of unmet need for modern contraception.

The pronounced interregional disparity in the share of unmet need for any method and unmet need for modern method reveals itself in the sub-regions. The level of total unmet need is the highest in the Northeast Anatolia with 32.2 percent followed by Central East Anatolia (29.8 percent). Southeast Anatolia and Istanbul are the next two regions with unmet need levels around 20 percent. Two of every ten women seem to be within the category of unmet need, in both regions (Table 2). However, the type of contraception used determines the magnitude of unmet need to a great extent because when traditional method users are taken into account the size of unmet need group changes and Central East Anatolia is seen as the region with the highest level of unmet need for non-users of any contraception. The proportion of modern method users with unmet need in Istanbul is more than twice those of in Southeast Anatolia. (15.9 percent and 6.1 percent respectively).

Table 2. Percentage of non-user and traditional method user women who are currently married and have unmet need for contraception by type of place of residence and region, TDHS-2003

	Unmet need for non-users of any contraception	Unmet need for traditional method users of modern contraception	Total unmet need	Currently married women*
Type of place of residence		-		
Urban	5.9	12.3	18.2	2750
Rural	10.1	10.4	20.6	1153
Regions				
West	4.1	13.3	17.4	1569
South	7.6	10.3	17.9	497
Central	5.1	12.1	17.3	915
North	7.4	10.6	18.0	283
East	16.9	9.2	26.1	639
12 Regions				
Istanbul	4.3	15.9	20.2	679
West Marmara	5.1	11.9	17.0	176
Aegean	4.2	12.7	16.9	550
East Marmara	4.1	9.9	14.0	363
West Anatolia	2.8	12.1	14.9	390
Mediterranean	7.6	10.3	17.9	497
Central Anatolia	9.0	9.4	18.4	223
West Black Sea	5.0	13.6	18.6	242
East Black Sea	9.7	9.7	19.4	144
Northeast Anatolia	16.5	15.7	32.2	115
Central East Anatolia	19.7	10.1	29.8	198
Southeast Anatolia	15.0	6.1	21.2	326
Total	7.1	11.8	18.9	
Number*	277	458	735	3902

<sup>\*</sup>Weighted numbers

Another significant point for the family planning services is the total number of women who constitute the potential group for contraceptive use. Since the populations of the regions are different than each other in Turkey, high proportion of unmet need in a region does not necessarily mean the high number of women. The number of women that have unmet need for contraception is the highest in the West region while it is the lowest in the North region (Table 3). The percentage of traditional method user women with unmet need for a modern contraception is more than non-users with unmet need for any contraception in the area with high population density. For instance, Istanbul has a considerable share in the total unmet need; 42.4 percent (not shown in the table) of the 1 411 313 traditional method user women with unmet need for modern contraception is in Istanbul.

Table 3. Total number of non-user and traditional method user women who are currently married and have unmet need for contraception by region, TDHS 2003, Turkey

Region	Unmet need of non-users for any contraception	Unmet need of traditional method users for modern contraception	Total unmet need
West	187.027	598.487	785.514
South	134.248	180.175	314.424
Central	144.726	341.801	486.527
North	75.900	108.428	184.328
East	333.925	182.422	516.347
Number	875.826	1.411.313	2.287.139

Source: Total number of women with unmet need was estimated from the regional distribution and marriage proportions of 2000 General Population Census.

Age pattern of unmet need for modern contraception is also different than the unmet need for any method (Table 4). Variation between age groups in the unmet need for modern contraception is low, compared with that of the unmet n3eed for any contraception. Traditional method users reveal a higher demand for family planning between ages 20-34; while unmet need of non-users is relatively lower after age of 25. Many women reach their desired number of children at the beginning of this age interval; achieving the desired number of children is reflected differently in the groups of non-users and traditional method users. In the case of non-users unmet need is comparatively lower since they have the traditional method as an alternative in front of them, whereas traditional method users display higher levels of unmet need with the purpose of changing their current traditional method. Thus demand for a more reliable contraceptive is high for this age group. Total unmet need reflects a declining level of unmet need with increasing age.

Table 4. Percentage of non-user and traditional method user women who are currently
married and have unmet need for contraception by age group, TDHS-2003

Age Group	Unmet need of non-users for any contraception	Unmet need of traditional method users for modern contraception	Total unmet need	Number
15-19	18.3	10.8	29.2	120
20-24	14.5	14.7	29.3	543
25-29	6.0	15.4	21.3	703
30-34	5.6	13.3	18.9	720
35-39	5.8	11.5	17.3	694
40-44	4.7	9.5	14.1	644
45-49	5.0	4.2	9.2	477
Total	7.1	11.8	18.9	3902

In general, women without education have the highest unmet need with more than one fifth of women taking place in the total unmet need category (Table 5). Likewise women with at least first level primary education constitute a slightly lower percentage than the uneducated group and nearly one fifth of the women with at least primary education takes place within the total unmet group as well. Women with unmet need for modern contraception exhibit a different pattern by education groups. While unmet need for contraception of non-users is higher among less educated women, unmet need for modern contraception is higher among more educated women.

Table 5. Percentage of non-user and traditional method user women who are currently married and have unmet need for contraception by level of education, TDHS-2003Turkey

Level of Education	Unmet need of non-users for any contraception	Unmet need of traditional method users for modern contraception	Total unmet need	Number
No education/Primary incomplete	13.5	7.9	21.5	843
First level primary	5.2	13.0	18.2	2146
Second level primary	4.9	14.6	19.5	308
High school and higher	5.6	11.2	16.9	605
Total	7.1	11.8	18.9	3902

#### **DISCUSSION**

Unmet need serves to provide decision-makers with a figure indicating a total demand for family planning. When the unmet need for contraception for currently married women in Turkey is calculated with its standard formulation making use of the TDHS-2003 data, Turkey appears to have an unmet need of 7.1 percent. This is one of the lowest level of unmet need with 2.6 percent for spacing births and 4.5 percent for limiting births among DHS countries in the period 2000-2005. In fact, there is a large group of traditional method users who come into view as a group who would like to change their current method with some another, and generally with a modern method. Since unmet need is the estimate of the magnitude and characteristics of the additional market for contraception the level of unmet need should include the obvious demand for modern method use which is put out by women who use traditional methods. The traditional method users constitute a potential group for using modern contraceptive methods thus in a country where traditional methods are so popular, the standard calculation of unmet need can be misleading causing an under estimation.

In this study, unmet need is calculated for women who are not using any contraception, as well as for those who are using traditional family planning methods but would like to change it with a modern one. Inclusion of this group increases the level of unmet need from 7.1 percent to 18.9 percent for currently married women. The effect of traditional method users who would like to prefer a modern contraception is not only reflected on the size of that group but also on the basic characteristics of the group with an unmet need for family planning. While unmet need for any contraception is high for the less developed areas of the country, such as rural settlements and eastern parts of the country, it is high for modern method in the more developed parts of Turkey such as urban settlements and the western regions. Similar variation is observed regarding the educational level of women. Unmet need for any contraception is high among less educated women, whereas it is high for modern methods among more educated women.

Unmet need for family planning in Turkey is also calculated at the regional level to examine interregional variations of unmet need. Unmet need for any contraception is the highest in the Eastern region, and for modern methods it is the West with the highest unmet need. It is important to note that the population sizes of the regions should also be taken into consideration in the assessment of unmet need for regions because high or low proportion of unmet need in a region does not necessarily indicate a large or small number of women.

Finally, potential demand for family planning has been estimated in the first place for non-users, concentrating on the supply of family planning methods, which is estimated by considering the conflicting situation based on the contradictory behaviour between pregnancy intention and contraceptive practice. Secondly, in calculating the unmet need for traditional method users, the demand for modern method has been taken as the basis of estimation.

Naturally not all women classified in need of family planning is expected to use contraception in the future; still, to know the magnitude of potential demand for family planning and the assessment of fertility implications of a satisfied unmet need might have practical results in policy making.

#### REFERENCES

Bongaarts, J. (1991), The KAP-gap and the unmet need for contraception, **Population and Development Review**, 17(2): 293-315.

Casterline, J. and Sinding, W. (2000), Unmet need for family planning in developing countries and implications for population policy, **Population and Development Review**, 26(4):691-723.

Dixon-Mueller, R. and Germain, A. (1992), Stalking the elusive unmet need for family planning, **Studies in Family Planning**, 23(5): 330-335.

Ergöçmen, B.A. and Kulu, I. (1989), Unmet need for family planning in Turkey, **The Journal of Population Studies**, 11: 5-17.

Ergöçmen, B.A. and et. al, (2004), A closer look at traditional contraceptive use in Turkey, **The European Journal of Contraception and Reproductive Health Care**, 2004, 9:221-244.

Hacettepe University Institute of Population Studies (HUIPS), (2004), **Turkey Demographic Health Survey 2003**, Hacettepe University Institute of Population Studies, Ministry of Health, State Planning Organization and European Union, Ankara.

MEASURE DHS, Demographic and Health Surveys, STAT Compiler,

<a href="http://www.statcompiler.com/statcompiler/index.cfm?CFID=2034792&CFTOKEN=10688548">http://www.statcompiler.com/statcompiler/index.cfm?CFID=2034792&CFTOKEN=10688548</a>, accessed Oct. 31, 2006

Ngom, P. (1997), Implications of man's unmet need in Africa, **Studies in Family Planning**, 28(3): 192-202.

Nortman, D.L. (1982), Measuring the unmet need for contraception to space and limit births, **International Family Planning Perspectives**, 8(4): 125-134.

Robey, B., Ross, J. and Bhushan, I. (1996), Meeting unmet need: new strategies, **Population Reports**, Series J: Family Planning Programs, 43.

Sinding, S.W. and Fathalla, M.F. (1995), The Great Transition, **Populi**, Dec:18-21.

State Institute of Statistics (SIS), (2003), **Population and Development Indicators**.

Westoff, C.F. (1978), The unmet need for birth control in five Asian Countries, **International Family Planning Perspectives**, 1978, 10(3):173-181.

Westoff, C.F. and Bankole, A. (1995), Unmet Need: 1990-1994, **Demographic and Health Surveys Comparative Studies**. No.6. Macro International, Calverton, Maryland.

Westoff, C.F. and Ochoa, L.H. (1991), Unmet need and the demand for family planning,

**Demographic and Health Surveys, Comparative Studies**. No.5, Institute for Resource Development, Columbia, Maryland.

Westoff, C.F. and Pebley, A.R. (1981), "Alternative measures of unmet need for family planning in developing countries, **International Family Planning Perspective**, 7(4): 126-136.

#### Notes

- a. Total unmet need for family planning was calculated as 6.0 percent for *ever-married women* in the final report of TDHS-2003 (HUIPS, 2004: p.102). Number of women given as 4078 in the report, , is the number of ever-married women. However in this paper the calculation of the indicator is in conformity with the standard formulation which is taken as the percentage of currently married women who has unmet need for contraception.
- b. The distribution of provinces into 5 regions are as follows: <u>West</u>: Edirne, İstanbul, Kırklareli, Tekirdağ, Balıkesir, Kocaeli, Sakarya, Çanakkale, Bursa Yalova, İzmir, Denizli, Manisa, Aydın; <u>South</u>: Muğla, Burdur, Isparta, Antalya, Hatay, Adana, İçel, Gaziantep, Kilis, Osmaniye; <u>Central</u>: Çankırı, Çorum, Yozgat, Tokat, Amasya, Bilecik, Eskişehir, Uşak, Kütahya, Afyon, Ankara, Kırşehir, Nevşehir, Bolu, Konya, Kayseri, Niğde, Aksaray, Karaman, Kırıkkale; <u>North</u>: Trabzon, Rize, Giresun, Ordu, Artvin, Samsun, Kastamonu, Zonguldak, Sinop, Bartın, Karabük; <u>East</u>: Mardin, Diyarbakır, Siirt, Hakkari, Bitlis, Van, Batman, Şırnak, Kars, Bingöl, Ağrı, Muş, Erzurum, Ardahan, Iğdır, Şanlıurfa, Malatya, Adıyaman, K.Maraş, Sivas, Tunceli, Elazığ, Erzincan, Gümüşhane, Bayburt
- c. "The Nomenclature of Territorial Units for Statistics" (NUTS), is a statistical region classification used by member countries of European Union. In the TDHS-2003, NUTS1 level can be used for selected indicators with sufficient number of observations.
- d. Infecund women in this survey consist of women who declared themselves as infecund and menopausal, and of non-pregnant and non-amenorrhoeic married women whose last menstrual period were six or more months preceding the survey, and of non-pregnant and non-amenorrhoeic married women who had never used any contraception and did not become pregnant in the last five years.
- e. Of all traditional method users 45 percent would like to change their current method and 93 percent of would bechangers prefer a modern method.

## ÖZET

## TÜRKİYE'DE AİLE PLANLAMASINDA KARŞILANMAMIŞ İHTİYACIN ÖLÇÜMÜNE FARKLI BİR YAKLAŞIM

Karşılanmamış aile planlaması ihtiyacı, 1970lerin sonuna doğru geliştirilen bir hesaplama biçimi ile, doğumlarının arasını açmak veya doğurganlığını sonlandırmak istediği halde gebeliği önleyici herhangi bir yöntem kullanmayan doğurabilme yetisine sahip kadınların potansiyel büyüklüğünü tanımlamaktadır. Bu çalışmada, Türkiye'de aile planlamasında karşılanmamış ihtiyaç, standart olarak kullanılan ölçüm biçiminin farklı bir yaklaşım içinde ele alınarak hesaplanması ile tahmin edilmiştir. Farklı bir yaklaşım tercih edilmesinin nedeni ülkedeki yöntem kullanma örüntüsünün aile planlamasında karşılanmamış ihtiyacın büyüklüğünün tahminini etkileyeceğidir. Bu bağlamda, Türkiye'de geleneksel yöntem kullanımının oldukça yaygın olması göz önünde tutularak yöntem kullanmayan veya geleneksel yöntem kullanan kadınlardan modern yöntem kullanma eğiliminde olanlar hesaplamaya dahil edilmiştir. Gebeliği önleyici yöntem kullanımının dağılımında ülkeye özgü durumun dikkate alınmasının aile planlamasına potansiyel talebin büyüklüğünü daha gerçekçi biçimde tahminini sağlayacağı düşünülmüştür. Böylece çalışmanın amacı, gebeliği önleyici yöntem kullanmayan veya geleneksel yöntem kullanan ama modern yöntem kullanma eğilimi içinde olan kadınların dahil edilmesiyle oluşacak talebin büyüklüğünün tahmin edilmesi ve bu tahminin klasik hesaplama biçimiyle farkını görmektir.

Bu çalışmada, 2003 Türkiye Nüfus ve Sağlık Araştırması'nın verileri kullanılarak evli ve 15-49 yaşlar arasındaki kadınlar temel alınmıştır. Sonuçlar, geleneksel bir yöntem kullanan ama modern bir yöntem kullanmayı tercih eden kadınların modelde yer almasıyla karşılanmamış ihtiyacın (yüzde 18.9) standart formulasyonla elde edilen karşılanmamış ihtiyaca kıyasla (yüzde 7.1) oldukça büyük olduğunu göstermiştir. Bu farklılık kendini sadece karşılanmamış ihtiyacın büyüklüğünde değil fakat aynı zamanda bölge, eğitim, ve yaş gibi temel değişkenlerde de kendini göstermektedir. Ülkede kullanılan gebeliği önleyici yöntem dağılımının, karşılanmamış ihtiyacın büyüklüğünün tahminini etkilediği görülmektedir.

Currently married Using Not using contraception contraception 72.2 27.8 Traditional method Modern method Pregnant or Neither pregnant amenorheic nor amenorheic 28.4 43.9 8.2 19.6 Like to change Pregnancy Not like to Pregnancy Infecund mistimed current change intended 11.2 1.5 method current method 5.1 12.7 15.7 Need for Not sure or Like to use spacing for the Fecund like to modern non-users 8.4 use traditional method 1.5 0.9 11.8 Pregnancy unwanted 1.5 Want no more Want later\* Want soon\*\* Need for modern 3.0 4.2 1.1 contraception for the users 11.8 Need for spacing Need for limiting **Need for limiting** for the non-users for the non-users for the non-users 1.5 1.1 3.0

Figure 1. Unmet need for contraception for currently married women, Turkey DHS-2003 by extended formulation

Unmet need of traditional method users for modern contraception=11.8%

Unmet need of non-users for any contraception=7.1%

Total unmet need =Unmet need of traditional method users for modern contraception +Unmet need of non-users for any contraception

Total unmet need = 18.9%

<sup>\*</sup>Wants to delay next birth for 2 or more years

<sup>\*\*</sup>Wants next birth within 2 years