

**STUDY OF UNMET NEED FOR FAMILY PLANNING
AMONG MARRIED WOMEN OF REPRODUCTIVE
AGE IN A DISTRICT OF EASTERN NEPAL**

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A RESEARCH REPORT

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DEDICATION

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Dedicated to my parents

Mr. Govinda P. Bhandari and Mrs. Rama Devi Bhandari

for

THEIR LOVE AND CARING SINCE THE BEGINNING OF MY LIFE

ACKNOWLEDGEMENT



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ABBREVIATION



AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
BPKIHS	B.P.Koirala Institute of Health Sciences
CI	Confidence Interval
CPR	Contraceptive Prevalence Survey
CPS	Contraceptive Prevalence Survey
DHS	Demographic and Health Survey
EDR	Eastern Development Region
FCHV	Female Community Health Volunteer
FP	Family Planning
FPAN	Family Planning Association of Nepal
GO	Governmental Organization
HC	Health Centre
HDR	Human Development Report
HIV	Human Immunodeficiency Virus
HP	Health Post
IMR	Infant Mortality Rate
IUD	Intra-Uterine Device
KAP	Knowledge Attitude & Practice
MCH	Mother and Child Health
MMR	Maternal Mortality Rate
MWRA	Married Women of Reproductive Age
NCASC	National Center for AIDS & STD Control
NDHS	Nepal Demographic and Health Survey
NFFS	Nepal Family Health and Fertility Survey
NFHS	Nepal Family Health Survey
NFP	Nepal Family Planning
NGO	Non- governmental Organization
NHRC	Nepal Health Research Council
ORS	Oral Rehydration Solution
PHC	Primary Health Centre
RH	Reproductive Health

RHS	Reproductive Health Survey
SHP	Sub-health Post
SPSS	Social Package of Statistical Software
STI	Sexually Transmitted Infection
TFR	Total Fertility Rate
VDC	Village Development Committee
WFS	World Fertility Survey

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INTRODUCTION

The population reports of 1996 estimated that about 10 million women have unmet need in the developing countries. In the developing world as a whole, excluding China, about 20 percent of married women of reproductive age group (MWRA) have unmet need.¹

About 133 million births occur in the world annually; of this total, one in four (33 million) is estimated to be unintended, either mistimed or never wanted.²

Annual Report from Ministry of Health of Nepal in 2001 showed that among currently MWRA the proportion of having unmet need was 27.8 percent. However, the proportion of women who were currently using contraception was only 39.3 percent. Population expressing no demand was 32.9 percent.³ The contraceptive prevalence rate (CPR) in Nepal according to the data of Annual Report was 37.59 percent. Low contraceptive prevalence rate directly affects women's health. Consequences may be unintended pregnancy.³ Most of the unintended pregnancies end in abortion. The proportion of unintended pregnancies that end in abortion is estimated at 58 percent world-wide.

Estimated world-wide abortion ratio is 260-450 per 1000 live births. An estimated 70 thousand abortions occurs each year in Nepal, and about four thousand women die each year from illegal abortions.⁴ In India about 6 million abortion take place every year, of which 4 million are induced and 2 million spontaneous.¹ Mortality ratios even in legal abortion ranges from 1 to 3.5 per 100,000 abortion in developed countries.

The unmet need for family planning in Nepal is 27.8 percent. The reasons for unmet in our context may be the lack of information, lack of decision making power, limited resources, distance from service delivery point, poor quality of care, traditional beliefs.² Usually unintended pregnancies end in abortion. Early complications of abortion include hemorrhage, shock, sepsis, uterine perforation, cervical injury, thromboembolism and psychiatric complication. Late complications include infertility, ectopic gestation, and increased risk of spontaneous abortion and reduce birth weight. All these complications are leading reasons in increasing high maternal mortality rate (MMR), which in Nepal are 539 per 100,000 live births.

So, unmet need is of great challenge to family planning programme for reaching and serving millions of women.

OBJECTIVES

1. To study the prevalence of unmet need for family planning among married women of Reproductive age (MWRA)
2. To study the socio-economic factors responsible for unmet need among MWRA.
3. To study family planning availability and accessibility as a factor responsible for unmet need for family planning among MWRA.
4. To study acceptability and awareness for family planning among MWRA.
5. To study the quality of family planning services as a factor contributing to unmet need

REVIEW OF LITERATURE

Global

Though the phrase “ Unmet Need for family planning “ has similar meaning as mentioned in many literatures, it has many alternative way of measurement proposed by different authors and literatures.

The proportions of couples using contraceptives have increased steadily after the availability of modern methods since 1960s. Among the key factors driving this change in contraceptive behaviors are a decline in the number of the children desired, a desire to avoid unintended pregnancies, and the increasing availability of and access to a variety of contraceptive methods.²

The concept of unmet need, and corresponding methodologies for measuring it, arose out concern with family planning needs in developing countries.⁵

The first series of surveys to shed light on the extent of unmet need in developing countries were knowledge, attitude and practice surveys, which were first fielded in 1960s. These were followed by the World Fertility Surveys, the Demographic and Health Surveys, the Contraceptive Prevalence Surveys and more recently the Reproductive Health Surveys.⁵

In 1960s to determine the extent of demand for fertility regulation, surveys on knowledge, attitudes and practices (KAP) regarding family planning were mounted in various parts of the developing world.⁶

These so called KAP Surveys (Bogne 1974) showed that in nearly all societies a discrepancy existed between some women’s reproductive preferences and their contraceptive behavior, that is, there was a “KAP-GAP”.⁶

“Unmet need for family planning” , which refers to the condition of wanting to avoid or postpone child bearing but not using any methods of contraception, has been a core concept in international population for more than three decades. Under the label “KAP-GAP”, the concept had its origins in the first fertility and family planning surveys carried out during the 1960s.

The identification of the KAP-GAP was an important milestone in the development of population policies and programs in the 1960s, particularly in Asia.⁶

The successor to the KAP surveys of the 1960s was World Fertility Survey (WFS) program, which began in 1972 and ran through 1984, yielding surveys in 41 developing countries. But

none of the 40 “comparative studies” produced by the WFS examines the relationship between fertility preferences and contraceptive use.⁶

Later from 1978 to 1984, greater attention was given to the relationship between preferences and contraceptive use in analyses of data from surveys conducted under the Contraceptive Prevalence Surveys (CPS).⁶

When the first set of WFS Surveys from Asia became available, Westoff (1978) produced a five-country study of “unmet need for family planning”, the phrase he substituted for “KAP-GAP” an indication of his determination to develop more refined measures of the discrepancy between fertility preferences and contraceptive use.⁷

Results from previous survey research which reports the existence of a KAP-GAP provide little insight into the reasons for a “GAP”. An analysis of WFS findings from 18 less developed countries provides proportions of currently married women of reproductive age who did not want any more children and who were not practicing family planning. However, data on reasons for not practicing were not collected by WFS and no further analysis was possible beyond describing the social and demographic characteristics of nonusers.⁸

In the first analysis, Westoff excluded pregnant and amenorrhoeic women on the grounds that they had no immediate need for contraception.

Later Westoff and Pebley showed 12 alternative definitions for unmet need to estimate the prevalence. But again it did not collect the information necessary to assess unmet need for spacing. Using data from the multinational Contraceptive Prevalence Surveys, which contained additional questions related to unmet need for spacing, Nortman (1982) introduced measures of unmet need for spacing to supplement the measures of unmet need for limiting. Nortman excluded pregnant women and amenorrhoeic women from consideration, however because they were, temporarily at least, no in need of family planning.

Then again came the era of Demography and Health Survey (DHS) which has in its component pregnant and postpartum amenorrhoeic women to estimate whether their current pregnancy was intentional, mistimed or unwanted.

By the early 1990s, unmet need for contraception was firmly established as a core concept in the family planning and population policy literature.

Nepal's Context

In rural Nepal, contraceptive use is considered to be risky behavior. Reproduction is a critical concern for rural Nepalese women and their families, and any change in a couple's reproductive capacity constitutes risk. Moreover, fertility decisions including those concerning the use of contraceptives occur within the context of competing motivations, real-

life contingencies, and economic considerations. For example, because children are desired as a means to secure the future social and economic welfare of households, couples balance their future needs against their present economic hardships. Because decisions regarding the birth of children affect other extended family members, couples sometimes must choose between satisfying their own desires and those of powerful kin.⁹

Evolution of Family Planning in Nepal

Family planning services in Nepal were started by the Family Planning Association of Nepal (FPAN) in 1959 A.D. Initially its services were limited to the Kathmandu Valley. The pioneering work of the FPAN led to the establishment of a semi-autonomous Nepal Family Planning and Maternal Child Health Project (NFP & MCH project) in November 1968 at the government level. Family Planning emerged as one of the major components of Nepal's planned development activities only in 1968 with the implementation of the Third Five-year Development Plan (1965-70). This is when the Nepal Family Planning and Maternal and Child Health Project (FP/MCH) under the Ministry of Health was launched in the government sector. Until then, family planning activities were undertaken by the FPAN, which was established in 1959 to create awareness among the people about the need and importance of Family Planning but not to offer any family planning services. Very little was done to directly regulate population growth until 1965 when a family planning project was established under the maternal and child health section of the Ministry of Health. Limited family planning services were offered through the existing maternal and child health clinics. The Fourth Development Plan (1970-75) targeted the provision of family planning services to 15 percent of married couples by the end of the plan period. From the Fifth five-year development plan (1975-80) onwards, family planning services were greatly expanded through outreach workers. From the Eighth Development Plan (1992-97) the integrated development approach was established to achieve target in family planning (reduce fertility rate from 5.8 to 4.5 per women by the end of plan) along with the improvement in other mother and child health indicators.

Table No.1 Trends in Fertility

Age-specific fertility rates (per 1,000 women) and total fertility rates, Nepal 2001				
Age Group	NFFS 1986 (1984-1986)	NFHS 1991 (1989-1991)	NFHS 1996 (1993-1995)	NDHS 2001 (1998-2000)
15-19	99	101	127	110
20-24	261	263	266	248
25-29	230	230	229	205
30-34	200	169	160	136
35-39	114	117	94	81
40-44	68	55	37	34
45-49	49	26	15	7
TFR	5.11	4.79	4.64	4.10

Note: Rates are for the three years preceding the survey.
^a Pradhan, 1995:10
^b Pradhan et al., 1997:11

Currently, government run family planning services have become integral part of health services. Health services in Nepal are delivered through national, regional, zonal and district hospitals, PHC/HC, HP, SHP and peripheral health workers and FCHV, of which/whom provide temporary family planning services (condoms, oral pills, injectables) on a regular basis. Services such as Norplant Implants and IUD insertions are only available at a limited number of hospitals, health centers and selected health posts where trained manpower is available. Depending on the district, sterilization services are provided at static sites (21 districts till '96) through scheduled "seasonal" or mobile outreach services. At the central level, the Family Health Division in the Department of Health Services is responsible for planning, supervision and implementation of family planning activities.¹¹

Table No.2 Health Status of Nepal (Source:11)

Health Indicator	Situation 1997-98	Targets of 9th Plan	20 Year Targets
Infant Mortality Rate	74.7	61.5	34.4
Child Mortality Rate	118	102.3	62.5
Total Fertility Rate	4.58	4.2	3.05
Life Expectancy	-	59.7	68.7
Maternal Mortality Rate	-	40	25
Contraceptive Prevalence Rate	30.8	36.6	58.2
Delivery by Trained Health Worker	-	50	95

The constitution of the Kingdom of Nepal 1990 states “The Constitution is the fundamental law of Nepal and all laws inconsistent with it shall, to the extent of such inconsistency, be void”. Part III – Article 11-23 of the constitution states that the fundamental rights of men & women are no different.²⁹ According to the provision in Articles 12-23, women in Nepal enjoy the following rights: Freedom of speech, equality before the law, information, property, indigenous culture, education, freedom of religion, protection from exploitation, protection from exile and privacy.

In Nepal, Abortion was legalized in March 14, 2002, six years after it was registered in the parliament. The Act became effective from September 23, 2002.⁴ Still the illegal abortion takes places at many corners of urban as well as rural areas, which, after legalization, could be used as a methods of family planning for some extent.

Women’s Situation in Nepal

The population of Nepal is increasing at an alarming rate. Nepal is one of only two countries where the life expectancy of women is lower than that of men. This clearly indicates the low status of women. The low status accorded to women, low percentage of delivery at a hospital site and unwanted pregnancies are some of the causes for high MMR and IMR.

The composition and age structure of a country impacts on the fertility rate and population growth rate. Since more than 42 percent population is under 15 years of age and more than 50 percent are in the age group of 15-59, the population of Nepal will continue to grow even if the fertility rate declines. Improved IMR, MMR and health services have significantly contributed towards increasing life expectancy, which is 55 years for men and 53.5 years for women. The present average life expectancy is 57.6 years (Human Development Report 2000).

About 90 percent of the economically active female population in Nepal is engaged in agriculture and related activities, while less than one percent of them work as professionals and technicians. Women’s participation in upper level decision making positions to influence national policies & programme is negligible.

Those employed in non-agriculture sectors are generally in lower level and low paid jobs. The tiring household chores including taking care of children are generally thought to be the concerns of women only and unproductive in terms of money and are usually taken for granted. The division of labor for men and women decided traditionally has increased extra burdens for the working women, who have a dual responsibility to perform at home and at

the work place. Men's attitude towards women's health generally is found to be very indifferent.

Although, literacy rate of female show an increasing tendency, participation of girls in education is much lower than that of boy. Female literacy rate (30%) is almost half that of men (66%) and the proportion of female with higher education are minimal, particularly in rural area. Early marriage and households chores further limit educational opportunities for the rural girls, who are at higher risk of dropout than the boys. So, education, which lays foundation for all other aspects of development of a person, has been compromised especially for girl child of Nepal. Thousands of girls in Nepal are married in their childhood. The 1996 Family Health survey showed that 25 percent of married women in the age group 15-19 were either mothers or pregnant with their first child. In 40 percent of all marriage in Nepal, the age of girls was under 14, whereas in 7 percent it was below 10 years. This indicates the pressure on many women to get children at an early age. Pregnancy immediately after marriage among adolescent girls is high due to social pressure and fear of childlessness and also to strengthen marital bondage.

Women of reproductive age group (15-49) comprise 23 percent of the total female population. High fertility (4.6), low ANC visit per pregnancy (0.7) and low percentage of deliveries attended by trained health personnel (10%) account for the high MMR (539 per 100,000live births) one of the highest in the world.

Although fertility rate is high (4.6), the total wanted fertility is only 2.9, which clearly shows that a large proportion of pregnancies are unwanted. Women with unwanted pregnancy are more likely to seek abortion and are in more risk. In Nepal most of the abortion is done in unsafe, unhygienic condition by untrained personnel and is one of the important causes of maternal mortality & morbidity.

Almost 30 percent of currently married women in the 15-49 age groups are acutely mal-nourished and 75 percent of them suffer from anemia increasing the risk of mortality and morbidity. Women are found to be in extra risk of getting infected with STI/HIV/AIDS by their husbands who usually go out for seeking jobs and get involved in extramarital relationship with other women. Among the total 1854 cases of HIV +ve including AIDS, 544 are found to be female as reported by National Center for AIDS & STD Control (NCASC) in March 2001.

The incidence of violence against women is on rise. Each year 5000 to 7000 girls between the ages of 12-20 years are trafficked out of Nepal. Dowry and bride pricing is very common especially in Terai belt. Domestic violence is rampant but is widely unreported. Women have

practically no right over their own pregnancy. Marital rape is considered a normal phenomenon. Husbands and in-laws usually decide for her about when, how many and how often she should get pregnant. Usually they also make decision on whether or not to seek medical assistance during her pregnancy, delivery and post delivery. Women are victims of rape, sexual harassment and incest. High son preference has placed extra pressure for the women giving birth to daughters only increasing the chance of her husband to marry another woman. Such gender based discriminations has a life time impact on women, both threatening their health and longevity. It is note worthy that among very few countries in the world; the average life expectancy of women (53.5 years) is lower than that of men (55.0 years) in Nepal.

Thus the situation of women in Nepal is extremely sad. They are overburdened with excessive workload, get less food of low nutrition value and their decision making power is very limited. Their life itself is given such low priority that it has limited their access to education, resources and health facilities. Religion, law, culture, tradition and social attitude have placed tremendous limits on their public and private life depriving them of opportunities towards self-development and well being. This situation has played a significant role in worsening their sexual and reproductive health.

Although there is no organized opposition from religious leaders or from the political parties, there are many social and religious barriers that need to be overcome and attitudes changed. In our society, people's perception of women's role at home and outside and their attitude towards them have been shaped, set, reinforced and perpetrated by a strong patriarchal way of thinking along with economic realities. Women are geared to be the weaker sex and not to question their partners' acts. Religion and tradition has accorded higher priorities to a son by making him the bearer of the family name and a responsible person for performing religious rituals. A girl child is looked upon as burden to the family and married off to shift responsibilities. The marriage of a girl child is a holy deed for the parents and an opening of the door to heaven. The practice of discriminating between sons and daughters in education and food habits has negative consequences not only for oneself but also the nation as a whole. The constitution is against any sort of discrimination, but the prevailing outdated laws and practices need to be changed for improving the RH status.

Unmet Need

Concept: Basically the concept of Unmet Need refers to a gap between someone's stated fertility preferences and his or her contraceptive use at a given point. The concept can serves

as a basis for identifying subgroups that are in need of programmatic action. Unmet need rises as more women would like to control their fertility but for various reasons are unable to do so, and it falls as more start practicing contraception. However, high levels of unmet need in a country do not necessarily reflect program failure, nor do low levels always indicate program success.⁵

Trends in Unmet Need: The level of unmet need in a country is not static but always in flux, depending on the interplay of two factors—fertility desires and contraceptive use. "Unmet need is a moving target," as Westoff and Bankole have observed. It rises as more women want to control their fertility, and it falls as more use contraception.^{12,8} Thus a high level of unmet need does not necessarily indicate program failure, nor does a low level necessarily indicate success. Moreover, even where the proportion of women with unmet need is declining, the absolute number with unmet need may be growing because the population is growing¹³.

Most countries follow a similar pattern as they move through the demographic transition from high to low fertility. In general, a population passes through four stages, during which the level of unmet need first rises and then falls¹³:

(1) **High fertility.** At first there is neither much contraceptive use nor much unmet need because most couples do not want to, or are unaware that they can, limit or space births. Fertility is high.

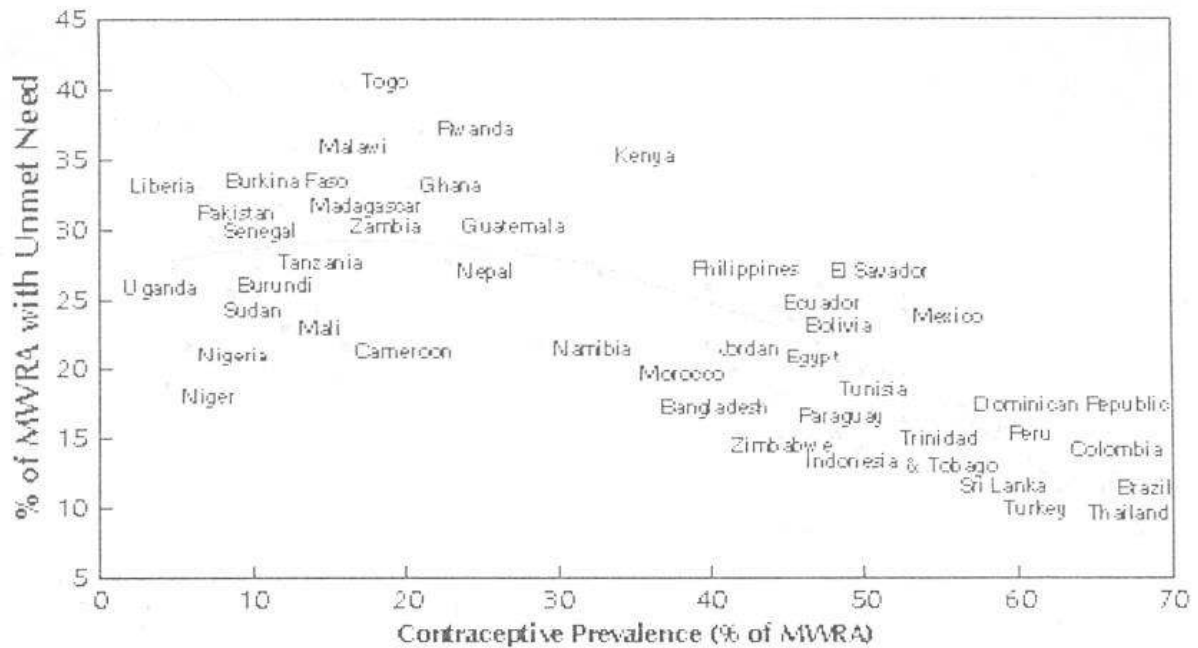
(2) **Change in attitudes.** As more couples want to control their fertility, unmet need rises because attitudes change faster than contraceptive use rises. Contraceptive use begins to rise as well, however, and the fertility rate starts to decline.

(3) **Change in behavior.** Reproductive attitudes continue to change and, as information and services respond to people's changing attitudes, contraceptive use rises rapidly, while unmet need declines. Fertility often declines rapidly.

(4) **Lower fertility.** Finally, most women do not want more children, and use of family planning is widespread. There is little unmet need remaining. Fertility stabilizes at a lower level than before.

Recent survey data illustrate this pattern among countries at different levels of contraceptive use (Figure 1). In countries with high contraceptive prevalence, the level of unmet need is low. At lower levels of contraceptive use, the level of unmet need is high, with slightly lower levels of unmet need in countries with the very lowest levels of contraceptive use. Even in these countries, however, the levels of unmet need suggest that a transition is starting.¹⁴

Figure 2. Relationship Between Contraceptive Prevalence and Unmet Need



Note: A curved regression line (the solid line) fits the data significantly better than a straight line.
 MWRA = married women of reproductive age Source: Demographic and Health Surveys

Population Reports

Fig.1

Fifth stage should be added in the context of developed countries. In developed countries now-a-days, numerous couples have postponed childbearing to such an extent that the only way for them to still have children is medically assisted conception. As these services are generally scarce and fairly expensive, such couples may be said to have an unmet need, not for current family planning, but for the consequences of their family planning in the past. In this sense, unmet need may be expected to rise again during this stage, continuing the oscillating pattern characterizing previous stages.⁵

Definition & Measurement

The unmet need for family planning is defined as the discrepancy between individuals' sexual and contraceptive behaviors and their stated fertility preferences. Basically, the concept of unmet need refers to a gap between someone's stated fertility preferences and his or her contraceptive use at a given point. Unmet need rises as more women would like to control their fertility but for various reasons are unable to do so, and it falls as more start practicing contraception.⁵

Unmet Need has been defined as the proportions of currently married women who report that they have had all the children they want but who are not practicing contraception although they exposed to the risk of pregnancy. Most of the studies are confined to couples currently married or living together, even though some never-married women and some formerly married women need birth control services. In some countries, such as those in sub-Saharan Africa, the demand for contraceptive services for child spacing may constitute a substantial part of the unmet need and may therefore be of major policy concern.⁸

The contraceptive prevalence rate (CPR) remains the contraception parameter of first interest in most quarters, but as time has gone by the prevalence of unmet need has assumed almost equal stature. Unlike contraceptive prevalence rate, unmet need measures both the contraceptive behavior and fertility preferences.

Argue has been made that unmet need is a misleading term because, as presently defined, it neglects reproductive health needs other than preventing births and neglects potential clients other than married women.¹⁵

Although there have been many refinement in the measurement of unmet need, the vast majority is based on the concept of unmet need. Westoff summarizes it as follows: "The objective is to identify the pool of non-users of contraceptives who are capable of conceiving, who are exposed to the risk of pregnancy and who wish to avoid or postpone pregnancy."¹⁶

In many studies and in this study too, the focus is on the respondents preferences about future fertility. Stated fertility preferences determine whether a woman at risk of pregnancy is categorized as experiencing unmet need. Specifically, women at risk of pregnancy who are not practicing contraception are considered to be in need if they want to delay or limit childbearing. This is a logical conceptualization of unmet need, the widespread application of which attests to its validity and value.¹⁷

Although one can be using contraceptives and still experience unmet need, but the methodology used in most studies are on expressed fertility preferences to identify those in need among nonusers.¹⁷

Deborah S.D et al applied entirely different approach to the identification of unmet need. With the previously used preference-based concept of unmet need, they develop a health-based concept. Health-based concept is a measures for those who are not using contraceptives and exposed to the risk of pregnancy, and who, if they were to become pregnant, would experience an elevated risk of mortality for their expected child, their living children or themselves.¹⁷

There are three health-based criteria—length of open birth interval, maternal age and birth order, characteristics that are among the most commonly examined explanatory variables in studies of infant and child mortality in developing countries.¹⁸ Focus was primarily on infant and child mortality, rather than on maternal mortality, because there has been a much greater emphasis on the former in the literature. Several studies have found, however, that the same characteristics are associated with maternal mortality.¹⁹

•*Birth interval.* Length of birth interval is perhaps the most frequently examined determinant of infant and child mortality in developing countries, and the factor for which there are the most consistent findings. Notably, in two studies of WF S countries (using data from 26 and 39 countries, respectively), Hobcraft and colleagues found consistent evidence that a birth interval of less than two years, either preceding or following the birth of a child, resulted in an elevated risk of mortality for that child.²⁰ Similarly, in a comparative study of 17 DHS countries, Boerma and Bicego found that a preceding birth interval of less than two years increased neonatal mortality risk by 98%.²¹ Negative health effects of short birth intervals are hypothesized to arise through several channels, including maternal depletion, competition among closely spaced siblings for resources, greater risk of disease transmission and early cessation of breastfeeding.²² Various approaches have been used to study the effects of birth spacing in an effort to distinguish between these channels. For example, some studies have attempted to disentangle the effects of duration of breastfeeding from the effects of length of birth interval per se. (A short birth interval may result in early cessation of breastfeeding for the previous child, while early cessation of breastfeeding contributes to short birth intervals.)

•*Maternal age.* Maternal age has been associated with higher infant and child mortality in many developing countries, including Bangladesh, Brazil, Guatemala, Mali, Senegal and Sri Lanka.^{23, 24, 25} Although many studies have not found significant effects of maternal age on infant and child mortality, the general pattern that emerges from the literature is one of greater health risks associated with pregnancy among women younger than 20 or older than 34. There is also some evidence of increased risk of maternal mortality for adolescents.²⁶

•*Birth order.* Studies have found that infants of high birth order have a higher mortality rate in Bangladesh, Brazil, the Philippines and Sri Lanka, and in several other countries where World Fertility Surveys were conducted.²²

There is no one “best” estimate of unmet need for family planning.

For a clinic-based family planning program in its early stage, with limited budget, little outreach or educational component, the most stringent measure is probably most appropriate for those who are not using any methods of contraception. At the other extreme, a sophisticated, well-financed program with a solid community base and extensive educational activities may want to use the measures that include all women who are not using an effective method. Since there may be a considerable unmet need for contraceptive services for child spacing in some countries, this criterion should be added where information is available.

If all women wanted more children, there would be zero unmet need. Similarly, if all women wanted no more children and all of them were practicing contraception, there would also be zero unmet need. One could, of course, calculate unmet need with a denominator of married women, who want no more children, but such an index would ignore the role played by women's reproductive intentions, and the numerical result would not indicate the size of the actual population presumably in need.

Apart from others, there is largely unknown prevalence of abortion which was not determined in WFS. Where abortion is commonly used as a form of fertility regulations, our measures overestimate the unmet need for birth control (although not the unmet need for contraception).⁸

Unmet need for family planning has hardly ever been consistently or systematically measured in Europe. This is so because the concept of unmet need, and corresponding methodologies for measuring it, arose out of concern with family planning needs in developing countries, not in developed countries.

Data requirements for measuring unmet need are such that only special surveys can produce them. The first series of surveys to shed light on the extent of unmet need in developing countries were knowledge, attitude and practice surveys, which were first fielded in the 1960s. These were followed by the world fertility surveys, the Demographic and Health Surveys, the Contraceptive prevalence surveys and more recently, the Reproductive Health Surveys. The exact formulation and measurement of unmet need, however, has undergone important changes from one data collection effort to the other.⁵

The standard formulation of unmet need includes all fecund women who are living in marital or non-marital union (and thus are presumed to be sexually active), who are not using any method of 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.¹⁶

The definition and measurement of unmet need have evolved considerably during the past two decades. In 1981 Westoff and Pebley identified 11 measures of unmet need based on

various combinations of women's breastfeeding status, fecundity, and whether a modern or traditional method was used. These early measures took into account the need for limiting but not the need for spacing. The need for spacing was not considered because Westoff and Pebley's data were from the World Fertility Surveys, which did not collect the information necessary to assess unmet need for spacing.²⁷

Using data from the multinational Contraceptive Prevalence Surveys, which contained additional questions related to unmet need for spacing, Nortman (1982) introduced measures of unmet need for spacing to supplement the measures of unmet need for limiting. Nortman excluded pregnant women and amenorrhoeic women from consideration, however, because they were, temporarily at least, not in need of family planning. Subsequently the Demographic and Health Surveys (DHS) included additional questions that allowed for the inclusion of pregnant and amenorrhoeic women among those for whom unmet and met need for spacing and limiting could be measured (Westoff 1988; Westoff and Ochoa 1991; Westoff and Bankole 1995a and 1995b).²⁷

Currently married women, including pregnant and amenorrhoeic women, can be divided into those having met need, unmet need, and no need for family planning. Those with met or unmet need can be further categorized into those who want to limit their family size—that is, to prevent all future births—and those who want to space births by delaying the next birth.²⁸

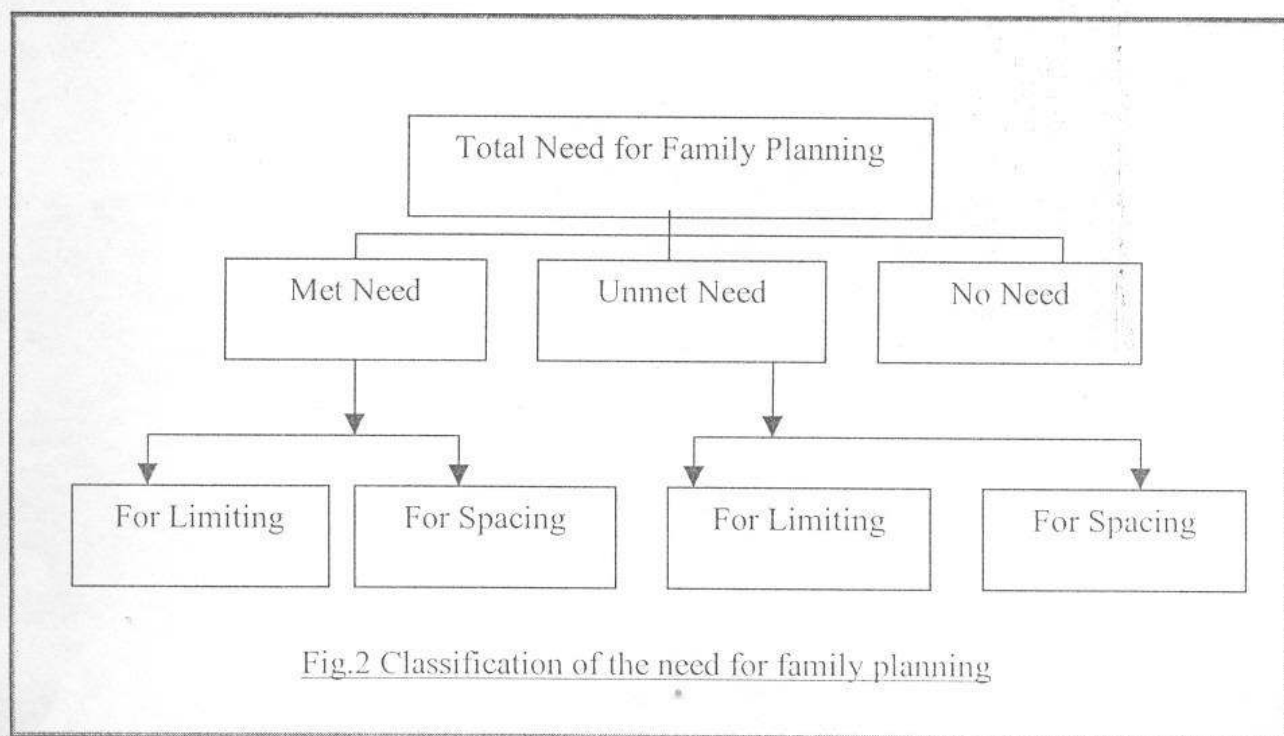


Fig.2 Classification of the need for family planning

Abortion as an indicator of Unmet Need

While the statistical relationships among levels of unmet need, levels of abortion, and contraceptive prevalence are not clear, the many induced abortions worldwide—estimated at a minimum of 45 million each year, or nearly one abortion for every three live births²⁹—are powerful evidence that millions of women want to control their fertility but have not used effective contraception. In many developing countries abortion remains a common way for women to control their fertility.^{30, 31}

Abortion statistics have been described as indicating the "ultimate unmet need for family planning".³² Only a minority of women having abortions have used effective contraception. While not all women who have had abortions would use contraception, many would be likely to do so.

The number of children desired is one of the key factors affecting a population's level of unintended pregnancy. In societies where large families are desired, the potential unintended pregnancy rate tends to be low.³³

As societies move through the fertility transition, the desired number of children declines along with the number of years needed to bear intended children. This implies that the numbers of years during which women are potentially at risk of an unintended pregnancy increases commensurately. In post-transitional populations with small-family norms of around two children, the number of unintended pregnancies per woman can be large unless women are protected from this risk by practicing effective contraception.

Spacing preferences also influence the potential unintended pregnancy rate. Women who prefer longer birth intervals are at greater risk of experiencing unintended pregnancies.³⁴

The proportion of unintended pregnancies that end in abortion is estimated at 58 percent worldwide, but there are large variations among regions.³⁵

In general, abortion rates are highest in societies where small families are desired, because of the increase in the risk of unintended pregnancy; in societies where low contraceptive prevalence or ineffective methods are combined with low-fertility norms; and in societies with a high propensity to rely on induced abortion. Relatively low abortion rates are found in societies with high desired fertility or high levels of effective contraception, or with a low propensity to use abortion. Populations passing through the fertility transition can reveal historically the operation of these different forces at different times. In Korea, for example, the abortion rate rose from around 0.5 abortions per woman in 1960 to nearly 3.0 per woman in the late 1970s (Figure below) as the small-family norm spread and before contraception had become widely available and acceptable. As contraceptive prevalence increased to about

50 percent, the abortion rate reversed its upward trend and declined back to its initial level by 1996. During this entire period, the total fertility rate declined from around 6 to 1.7 births per woman. Similar crossovers in rates of abortion and contraceptive prevalence have been observed in parts of Eastern Europe such as Hungary and, more recently, in some of the republics of the former Soviet Union such as Kazakhstan.³⁶

The NFHS (1996) survey indicated that 4.9% of all pregnancies resulted in spontaneous abortions and 0.3% resulted in induced abortions. However, it should be noted that the collection of pregnancy histories is very difficult as information in pregnancies which were spontaneously aborted within the first few months after conception are likely to be missed. Similarly induced abortions are likely to underreport (as there are done illegally). The MMM Study 1998 reveals that complications from abortion constitute more than half (56%) of the total obstetric & Gynecology admissions to hospital.³⁷

Figure 3 Relationship between the total abortion rate and prevalence of contraceptive use, according to various levels of the total fertility rate

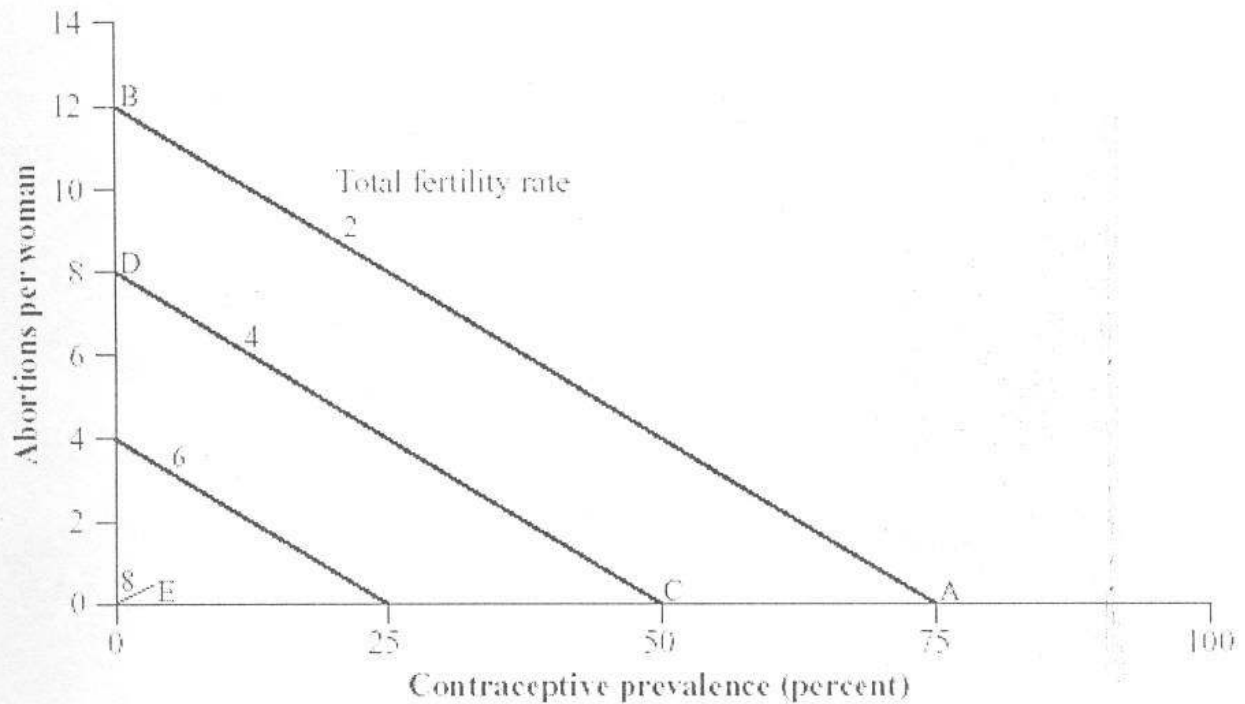


Fig. 3

A population with a TFR of 2 is somewhere on line AB. In the absence of contraception this population will be at point B, with a TAR of 12; at the other extreme, if contraceptive prevalence reaches 75 percent, then the abortion rate would be zero (point A in Figure b).

The higher the level of fertility, the lower the abortion rate and the level of contraceptive prevalence.⁷ For example, with a TFR of 4, a contraceptive prevalence rate of 50 percent among fecund exposed women would suffice to avert all abortions (point C in Figure b), but

without contraception the abortion rate would be 8 (point). In the absence of both abortion and contraception, the TFR would be 8 (point E).

In this hypothetical illustration, there is a clear tradeoff between abortion and contraception. With a TFR of 2, 75 percent prevalence has the same fertility-reducing effect as 12 abortions, while with a TFR of 4; 50 percent prevalence is equivalent to eight abortions. These results imply that a rise of 10 percentage points in contraceptive prevalence averts 1.6 induced abortions per woman at any given level of fertility. An assumption made in obtaining this estimate is that fertility remains constant when prevalence is changed. In reality, any rise in contraceptive prevalence will avert not only abortions but also unintended births.³⁴

Couples throughout much of the world are increasingly exerting control over their reproductive lives; despite this trend, however, the incidence of unintended pregnancy remains high. About 133 million births occur in the world annually; of this total, one in four (33million) is estimated to be unintended-either mistimed or never wanted.³⁵ In addition, an estimated 46 million induced abortions are performed, bringing the total number of unintended pregnancies to about 79 million per year. In other words, almost as many unintended as intended pregnancies occur each year (not counting miscarriages), and more than half of these unintended pregnancies end in abortion.²

Developing regions with relatively high birth rates (Africa, Latin America, and south Asia) have higher rates of reported unintended pregnancy and abortions than do developed regions with low birth rates (North America, East Asia, Western Europe, Japan and Oceania). The reverse is true, however, for the proportion of all pregnancies reported as unintended. More than half of all pregnancies (56%) are unintended in the developed world, compared with 42% in the developing world. The proportion of all pregnancies ending in abortion is also higher in the more developed than in the less developed world (41% vs. 23%).²

Unmet Need versus Demand for Contraception

Despite the word "need," statistics on unmet need do not measure demand for family planning services, some analysts have pointed out, because surveys do not directly ask women whether they want or need contraception.^{38, 39} Nor do survey responses indicate the intensity of women's interest in avoiding pregnancy.⁴⁰ In particular, some have criticized assumptions that improving access to contraception would satisfy all unmet need.³⁹ Such criticisms do not invalidate the concept of unmet need. Rather, they point to the importance of understanding the various reasons for unmet need and, as a result, recognizing how much unmet need family planning programs can meet and the various ways that they can do so.

While the term "unmet need" may evoke the image of women seeking contraceptives, Rodolfo Bulatao has observed, "the reality is that many of those counted as having unmet need still need to be convinced that contracepting is acceptable and in their interests".⁴¹ To avoid misinterpretation, Bulatao has suggested substituting the term "blocked fertility preferences" to describe the women who want to control their fertility but "for some reason--internal or external, psychological or social or physical--are not taking steps to do so".⁴¹

Changing attitudes and behavior

While unmet need may not equal demand for contraception, it can be considered an "essential step" between preferring lower fertility and acting on this preference by using contraception.⁴² Adopting a new behavior such as family planning is not an instantaneous act but a process, as people become increasingly aware and interested and, eventually, decide to adopt and to maintain a new behavior.^{43,44,45} "Unless we assume that the gradual development of a new value--wanting fewer births--is immediately followed by the adoption of birth control, we can expect a group to exist with discrepant goals and means," Freedman and Lolagene Coombs observed in 1974. "This should be a group with a high potential for adoption of contraception".⁴⁶ That is, unmet need is a stage between changing attitudes and changing behavior.⁴⁷

Based on a review of studies over the past two decades, Freedman in 1996 concluded that family planning programs have played an important role in helping women move from having an unmet need to being contraceptive users. Programs help convert "what are often somewhat uncertain and ambiguous desires not to have more children into a definite demand for contraception." In other words, they help women with unmet need overcome barriers to contraceptive use, "thereby converting latent to manifest demand for contraception".⁴²

Reasons for Unmet Need

Several reasons together explain why many women who would prefer to avoid pregnancy nevertheless do not use contraception, according to findings from comparable surveys and in-depth studies. These reasons are:

- Difficulties with access to and quality of family planning supplies and services;
- Health concerns about contraceptives and side effects;
- Lack of information;
- Opposition from husbands, families, and communities;
- Little perceived risk of pregnancy.

Difficulties with Access to Methods and Quality of Services

In most countries unmet need is greatest among two groups that have the least access to family planning programs—rural women and women with little education.^{8,12,13,27,48,49} For some women access appears to be a persistent problem.⁴⁰ As family planning services have become widely available in many countries, however, recent studies using DHS data report that the distance to a source of contraception—measured by how far the average person lives from the nearest service site—now has little relationship to the level of unmet need in a country.^{12,50,51}

Even if distance to *any* service site may not be important to unmet need, lack of access to people's preferred methods and services can be a formidable obstacle.^{50,52}

In addition to lack of preferred methods, various other "costs" limit access to family planning. Many potential clients do not use contraception because of "monetary, psychological, physical, and time-related costs," Martha Ainsworth reported in 1985 on the basis of CPS data.⁵³ Analyzing DHS data, John Bongaarts and Judith Bruce observed in 1995 that difficulties obtaining "adequate services that can be used without undue personal costs—psychological costs, travel time, monetary outlay, and so forth"—are reasons for much unmet need.⁵⁰

Poor-quality services—or the expectation of poor services—keep some women from using family planning. Some have been poorly treated at family planning clinics or have had problems with services.^{54,55,56,57,58} Sometimes, lack of supplies in clinics causes women to discontinue contraceptive use.⁵⁹ Other women do not go to clinics because they fear modern medicine and are suspicious of service providers.⁶⁰

Health Concerns and Side Effects

In many countries concerns about health and contraceptive side effects cause much unmet need.^{12,50,61,62} These concerns come from a variety of sources, including women's own experiences with using contraception, experiences of friends, and the rumors that often result as these experiences are told and retold throughout communities.

Women who never have used contraception. Most women with unmet need who cite a health concern about a particular method have never used that method themselves. Sometimes they have heard about medical problems that others experienced using contraception. In the Philippines women provided interviewers with detailed, often graphic descriptions of the health risks of using contraception—for example, of women who had been hospitalized because IUDs were incorrectly inserted.⁶³ In Nepal women with unmet need told

interviewers that they feared sterilization because they knew of women who had died of sepsis following sterilization procedures.⁵⁸

Sometimes people's fears are based on rumors. In Kenya women in focus-group discussions spoke of pills accumulating into life-threatening masses in the stomach and other bizarre effects thought to accompany contraceptive use.⁶⁴ In Nepal some women said that they would not consider sterilization because it was said to cause weakness and so require additional nutritious foods that they could not afford.⁶⁵

Women who discontinued family planning. Many women have discontinued contraceptive use, not because they wanted to become pregnant, but because they experienced side effects and health problems attributed to contraceptives.⁶⁶ Discontinuation often leads to unwanted pregnancies.

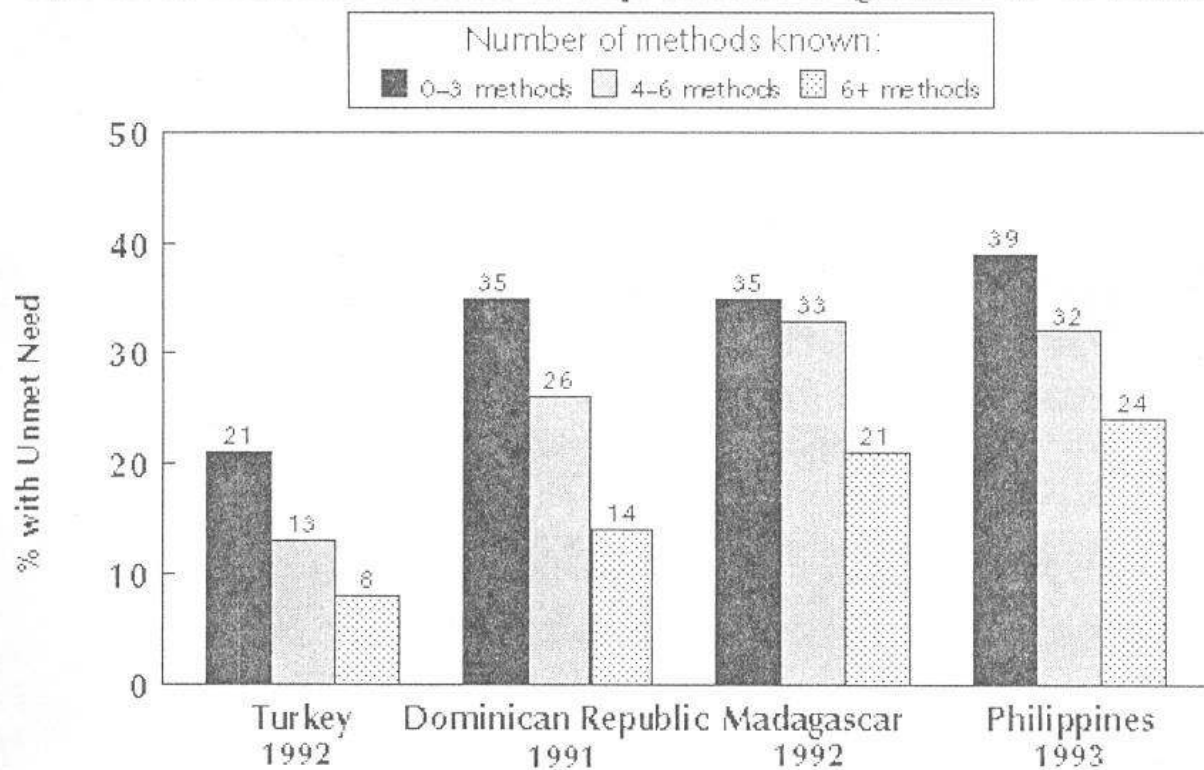
Comparing risks. Many women have concerns about contraceptive side effects and health risks.⁶³ Many use contraception despite these reservations, however, because they see it as preferable to becoming pregnant. For example, in Mexico a study found that IUD users accepted side effects, including heavy bleeding, as the price of avoiding unwanted pregnancy.⁶⁷ Other women, however, would rather risk an unintended pregnancy than use contraception, especially when they lack information about effects on health.^{55,52}

Lack of Information

Lack of information is another important reason for unmet need. Women who are aware of many contraceptive methods, know where they can be obtained, understand their side effects, and know how to use them are less likely to have unmet need.

The more contraceptive methods that women know, the lower their level of unmet need, as DHS findings illustrate⁴⁷ (Figure 4). As might be expected, lack of awareness of *any* contraceptive method is most likely to explain unmet need in countries with little contraceptive use, as in sub-Saharan Africa.¹² This is because, if a woman does not know about contraception itself, she can not cite other reasons for not using it, such as lack of availability or side effects.

Figure 4. Unmet Need by Number of Family Planning Methods Known to Married Women of Reproductive Age in Four Countries



Source: Bhushan 1996 (19) from Demographic and Health Surveys

Population Reports

Just knowing that methods exist may not be enough information for many women. In-depth studies show that many women may be aware of at least one, and often several, contraceptive methods, but they often do not know how the methods work, what their side effects are, how to obtain them, how much they cost, whether their use can be kept private, and other aspects that may affect the decision to use contraception.⁶⁸ Even when women give interviewers such reasons for nonuse as dislike of contraception, fear of side effects, or belief that they cannot get pregnant, these reasons suggest a lack of information about reproduction and contraception.⁶⁹

Knowledge of availability. To use contraception, women must not only know about the existence of contraception itself but also what services are offered where and when. Studies have shown that the more women find contraception to be available, the more likely they are to use it.^{70,71,72} In general, women with an unmet need perceive family planning services to be less accessible than do contraceptive users, according to DHS data.⁴⁷ WFS data for Nepal in 1979 showed that the level of unmet need for limiting in Nepal was lower among women who knew of a nearby service delivery outlet than among those who knew only a distant outlet.⁷³

Opposition from Husbands, Families, and Communities

As Moni Nag has noted, a woman may have unmet need for family planning because of the high "social cost of challenging the opposition from her spouse or anyone else in her social influence group".⁶²

Opposition from husbands. Many women do not use contraception because their husbands are opposed.^{74,75,56,64,76,58} From the limited evidence available, only a minority of all wives and husbands appear to disagree about using contraception. Nevertheless, these couples probably make up a substantial share of couples with unmet need.^{77,74} When husbands want to have more children than their wives, the preference of the husband usually prevails.^{78,79}

Men's reasons for opposing family planning vary. Some want more children. Others oppose contraception, even if they do not want to have more children, because they worry that their wives might be unfaithful if protected from pregnancy.^{80,81,82} Others are jealous that male physicians would examine their wives.⁶² Still others want to control their wives' behavior, have religious objections, or fear the side effects of contraception.^{80,55,64,76,74} Husbands' attitudes may affect not only whether or not wives use contraception but also the choice of a method and how long it is used.⁸³

Opposition from families and communities.

Although less important than husband's opposition, lack of support by extended families and community leaders also prevents some women from using contraception. In the Philippines, for example, women with unmet need are less likely than contraceptive users to consider contraception socially acceptable.⁷⁴ In Kenya mothers-in-law prevent some women from using contraception because they think that it would weaken the control of the husband's family or that their daughters-in-law should not expect anything different from their own experience.⁶⁴

In most countries religious opposition is not an important reason for unmet need.¹² In a few surveyed countries, however—including Bangladesh, Nigeria, Pakistan, and Senegal—religious opposition is one of the main reasons that women give in the DHS.

Little Perceived Risk of Pregnancy

When a woman believes that she is unlikely to become pregnant, she is unlikely to be interested in contraception.⁶⁵ In the Philippines, for example, women with unmet need are much less likely than contraceptive users to think that they can ever become pregnant. These women "concede a certain risk of becoming pregnant but consider it too small to justify the

various costs and inconveniences of contracepting".⁷⁴ Women with unmet need for limiting births are much more likely than potential spacers to think that they face little risk of pregnancy—probably because most women with unmet need for limiting are older. While many women may be right about their inability to conceive, other women face a risk of unintended pregnancy because they do not understand the menstrual cycle or do not know about reproductive physiology in general.^{84,85,86,87,88,89}

Apparent Ambivalence

An estimated 15% to 30% of the total unmet needs group give apparently contradictory responses to different DHS questions about childbearing intentions.⁴⁷ For example, some women who respond that they do not want to become pregnant also respond to another question that they do not intend to use contraceptives because they want to have more children.

To an unknown extent, these contradictory responses may reflect difficulties with the survey questions.²⁸ Nevertheless, in most countries surveyed more women fit this category than cite lack of information or disapproval of family planning as their main reason for not intending to use contraception.

Such apparently ambivalent responses are much more common among potential spacers than limiters. In fact, in the DHS it is by far the most important reason among potential spacers for not intending to use contraception.¹² For example, in 24 countries, among spacers who do not intend to use contraception soon, an average of 37% appears ambivalent about their childbearing plans. Ambivalent responses are common in sub-Saharan Africa, where most unmet need is for spacing births, but such responses are relatively rare elsewhere, where unmet need for limiting births typically accounts for a larger share of unmet need.¹²

Women's conflicting statements about their reproductive desires also may reflect the contradictions that they face in many aspects of their lives. In Guatemala, for example, some women interviewed said that they would prefer not to have any more children so that they could have more time for themselves, but also they wanted to have more children to please their partners.⁸⁰

Unmet Need Levels by Women's Characteristics

The DHS identify several important characteristics associated with unmet need among married women. These include time since previous birth; age; number of children; education; and place of residence, whether rural or urban.

Time since previous birth. Fecund, sexually active women who do not use contraception are likely to have frequent pregnancies, whether they want to or not.⁹⁰ Thus levels of unmet need are highest among women who have given birth within the last three years.

Women classified as having an unmet need who have long intervals since their last births probably are less fecund and less sexually active than others with unmet need. Most of these women are older, with older children. Their numbers are few compared with the large numbers of younger women with unmet need.

Women's age. Almost everywhere, clear relationships emerge between women's age and the level of unmet need when unmet need is divided into its spacing and limiting components. Most unmet need among younger women, like most contraceptive use, is for spacing births, because younger women still want to have more children. Among older women most unmet need (and most contraceptive use) is for limiting births because older women have had as many children as they want, and often more.¹² Unmet need for limiting typically peaks among women in their late thirties or early forties and then declines in the 45-49 age group. Many women in their forties have become infecund and thus are no longer included in the unmet need category.

Number of children. In developing countries almost all married women want to have children, and they want them soon after marriage. Thus among childless married women there is almost no unmet need for spacing or limiting births. Once women have had their first child, however, unmet need for spacing in some countries decreases with each additional child, while in other countries it peaks after the birth of two children and then decreases with each additional child. In almost all countries unmet need for limiting births increases with each additional child that a woman has. Overall, the trend for limiting and the trend for spacing cancel each other out. As a result, there is no apparent relationship between number of children and the *overall* level of unmet need.^{12,13}

Education. There are two patterns of unmet need related to women's education.^{12,47} Outside sub-Saharan Africa better educated women have somewhat less unmet need than women with little or no education

. In contrast, in most sub-Saharan countries, such as Ghana, levels of unmet need are about the same regardless of women's education levels.

These patterns suggest that outside Africa, although many women at all education levels want to avoid pregnancy, less educated women face more obstacles to using contraception than more educated women. In sub-Saharan Africa, however, women with more education are

more interested in avoiding pregnancy than other women but face the same obstacles as other women.

Rural or urban residence. In most countries unmet need is greater in rural areas than in urban areas. In sub-Saharan countries, however, unmet need is either greater in urban areas or about the same as in rural areas.^{12,13} In sub-Saharan Africa the pattern of unmet need by residence probably reflects both the greater interest in avoiding pregnancy among urban residents and the limited availability and acceptability of contraception, even in cities. Also, within cities everywhere, slum or squatter neighborhoods are likely to have higher levels of unmet need than elsewhere.

Differences among Women with Unmet Need

There are important differences among women with unmet need. Such differences include pregnancy status, whether unmet need is for limiting or spacing births, previous use of contraception, and intention to use contraception in the future.

Pregnancy status.

The fact that many women with unmet need are pregnant or amenorrheic is closely related to the fact that unmet need is most common among women who have recently given birth. Fecund, sexually active women are likely to become pregnant soon if they do not use contraception.

Many women give birth much sooner after the previous birth than they would like.

Limiting or spacing. The distinction between unmet need for limiting and for spacing births is important for family planning programs. First, women who want to space births would be interested in temporary contraceptive methods, while women who want to have no more children may prefer long-term or permanent methods. Also, the main reasons for unmet need differ between potential limiters and spacers. For example, in the DHS, among women who do not intend to use contraception, apparent ambivalence is the most important reason among potential spacers, while few potential limiters appear to be ambivalent about their reproductive intentions. More than twice as large a percentage of potential limiters, however, do not intend to use contraceptives because they consider themselves not exposed to the risk of pregnancy

Previous use of contraception. Generally, most women with unmet need have never used contraception.

Still, in some countries a substantial number have used contraception but have discontinued use, reflecting side effects, poor services, ineffective methods, or other concerns

Intention to use contraception. Slightly over half of women with unmet need intend to use contraception within the next 12 months.

Women with an unmet need who intend to use contraception are different from those who do not. In a study of DHS data from Egypt, Jordan, and Morocco, John Stover and Laura Heaton found that intenders resemble contraceptive users, and nonintenders resemble nonusers, in such characteristics as ideal and actual family size, awareness of a contraceptive method, personal and husband's approval of family planning, discussion of family planning between wife and husband, and previous use of contraception. In particular, most intenders had used contraception before. Among women who did *not* intend to use contraception, nearly half appeared to face little risk of becoming pregnant.⁹¹

Many women who are not using contraception and do not currently have unmet need—that is, women who presumably are trying to have a child—say that they intend to use contraception in the future.

Low risk of pregnancy is often an important reason for nonuse among women presumed to have unmet need.

Thus women, who intend to use family planning in the future, even if they have no unmet need now, probably would respond better to family planning program efforts than women at risk who do not intend to use contraception.^{92,28,93,94,95,96} Research in Nepal, for instance, has found that women with unmet need who intend to use contraception are more likely than nonintenders to view family planning and health workers favorably.⁹⁵ In contrast, many nonintenders may not feel strongly about avoiding pregnancy or may face little risk of pregnancy.

MATERIALS AND METHOD

Description of the Study Area:

This study was conducted in Rangeli Village District Committee (VDC) in the Morang District, situated in the Eastern Development Region of Nepal and is mainly a Terai area. The population of Morang District is 9, 14,483 (Census 2001) with a total of 68 health institutions. There are 65 VDCs and one Municipality in the District.

Rangeli VDC, one of the oldest village of Morang, was once a known as business centre of the region. The total population of Rangeli VDC is 14951 with male to female ratio of 1.09. The total number of house hold is 2764. It is situated 25 KM South-East of Biratnagar, an industrial city and can be accessed by local bus in one hour. Rangeli VDC is bounded by Takuwa VDC in the eastern and Northern Border, Amgachi in eastern and southern, Darvesha and Sorhavag VDC in west and the southern part is bordering India. The total population of Rangeli VDC is 14500. As in other VDC's of Nepal, there are altogether nine wards. Although there are graveled roads in all parts of the village, there are no such transportation facilities within the village, but a local medium of transport, i.e., Rickshaws, can be hired to reach any part of the village. Other local medium of transport for carrying weights, other than Rickshaws, are bull carts, tractor and also some hand-cart. There are a few small Industries in Rangeli VDC, apart from the agriculture and livestock as a source of income.

Table No.3 *House Holds having agricultural land, livestock & Poultry*

Total	Agriculture / land	Livestock	Poultry	Land & Livestock	Land & Poultry	Livestock & Poultry	Land /Livestock & Poultry	None of all
2764	183	413	41	504	28	223	461	911

Table No.4 *H/H operating small scale Non-agricultural economic activity by type of activity*

No. of Households			Type of Activities					
Total	Having economic activities	Not having economic activities	Total	Manufacturing	Trade / Business	Transport	Services	Others
2764	1436	1328	1436	36	366	22	620	392

Table No.5 *Population 6 years of age & over by literacy status and sex*

Total			Can't Read & Write			Can Read only			Can Read and Write			Not Stated		
Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F
12640	6673	5967	5344	2038	3307	297	122	175	6964	4505	2459	34	8	26

Table No.6 *Population 6 years of age and over by status of school attendance*

Total	Currently Attending			Currently not Attending		
	Total	Male	Female	Total	Male	Female
6092	3030	1763	1267	3062	1409	1409

Table No.7 *Population 10 years of age and over by Marital Status*

Total	Single	Married (Single spouse)	Married (>1 spouse)	Remarried (Single spouse)	Widow /Widower	Divorced	Separated	Non stated
10999	3643	6956	118	133	141	0	8	0

Table No.8 *Population 10 years of age and over by usual economic activity*

Total			Economically Active			Economically inactive		
Total	Male	Female	Total	Male	Female	Total	Male	Female
10999	5806	5193	5404	4145	1259	5594	1661	3934

Table No.9 *Children below 16 years of age by status of living arrangement*

Total	Children below 16 years of age living with							
	Parents	Mother	Father	Father & Step Mother	Mother & Step Father	Other Relatives	Employer	Others
5959	5798	14	8	9	0	0	8	122

Source: Population Census 2001

Regarding the education facilities, there is one government high school and two primary schools and private primary level schools are in few numbers. Safe piped water supply and electricity are yet to reach the periphery of the VDC.

The government district hospital is situated in the centre of the VDC and is recognized as the Teaching District Hospital of B.P.Koirala Institute of Health Sciences (BPKIHS), Dharan for the training of medical Interns and Post- Graduates. BPKIHS provides specialized services in all major medical disciplines such as Medicine, Surgery, Pediatrics Obstetrics and Gynecology and Dentistry through visiting faculty and Residents. Two private clinics run by graduate doctors and others by health auxiliaries are also available in the centre of the VDC.

Four private medical stores nearby the hospital area are only the allopathic medical drug providers in the village. As the district hospital is in the village, there is no Sub Health Post in VDC. The National Programs are implemented through District Hospital. Family Planning programmes are run by different NGOs (Plan International). The Rangeli Hospital provides all family planning methods except for tubal ligation or vasectomy, for which they are referred to Koshi Zonal Hospital, Biratnagar. FCHV also dispense contraceptive supplies (condoms, pills) to women in their homes during their home visits or as per requirement A clinic of Family Planning Association of Nepal (FPAN) was also there in VDC office, but recently shifted its clinics to. Most of the deliveries are conducted at homes by their relatives & TBAs and some go to hospital for deliveries. Maternal care facilities are available through district hospital.

There is One Female Community Health Volunteer (FCHV) in each ward. FCHVs are provided a drug kit consisting of paracetamol, tincture iodine, gentian violet, ORS packet, condoms, Oral Contraceptive Pills, cotton bandages, scissors, a soap case with soap and a towel. Condom and pills are distributed free. The role of FCHV is mainly on motivating and educating women and community members for the promotion of safe motherhood, child health, family planning and community health. Similar to other Terai communities most of the people are dependant on agriculture. Majority are agricultural laborers with few cultivating in their own land. The main crops are Rice, Millet, Sugarcane, Jute etc.

The major caste is mandal. Most of the people residing the Rangeli VDC are Hindu minority are muslims and others.

METHODOLOGY:

Study Area: The study was conducted in Rangeli VDC of Morang district. Fourteen thousand nine hundred and fifty-one people live in Rangeli VDC which is characterized by poverty, lack of education etc. More than 75 percent of the houses are Kuchha with thatched roof. Most of them are illiterate and ethnically mandals.

Study Design: This was a cross-sectional descriptive study.

Sampling Frame: The sampling frame was all married women of reproductive age group in Rangeli VDC

Study Population: The study population of the research was married women of reproductive age group, i.e. 15-45 years.

I. Exclusive criteria of the study population:

- Unmarried women
- Women whose husband has died, separated or divorced

II. Inclusion criteria of the study population:

- Married women of reproductive age group, 15-45 years
- Pregnant women, living together with husband, aged 15-45 years

Unit of Study: The unit of study was individual married women of reproductive age group 15-45 years.

Sample size: The sample size was 1050. The sample size was calculated by taking the Nepal's Family Planning Unmet need prevalence rate of 27.8% with a precision of 10% with 95% confidence interval (CI).³

Sampling Technique: Sampling was done in following steps:

- I Step: Morang District was chosen purposively as a study area.
- II Step: Rangeli VDC was also chosen purposively as it is one of the teaching district of BPKIHS.
- III Step: All nine wards from Rangeli VDC were selected.
- IV Step: The sample size was equally distributed among all the nine wards assuming the homogeneity of the population in terms of different characteristics (social, cultural, economic etc). Thus 120 subjects were needed to be studied from each ward. Finally to select 120 subjects from each ward, one chowk (junction of the road) was selected randomly and from the selected chowk, interview was started from centre to periphery till the required numbers of eligible women were contacted. The direction to precede the interview from the selected chowk was chosen by lottery method. The first household was the first house from the selected chowk towards the selected direction and the interview was continued towards the periphery of that ward till the required sample size

was fulfilled. If the household didn't have the sample subject on the day of interview, a second visit was made on the next day.

STEP I	MORANG DISTRICT	}	PURPOSIVE SAMPLING
STEP II	RANGELI VDC		
STEP III	ALL 9 WARDS		
STEP IV	CHOWK		RANDOM SAMPLING
	DIRECTION		LOTTERY METHOD

Sampling Technique

1. Data Collection Tool: A semi structured questionnaire was used as tool for data collection. The questionnaire was in Nepali language. The questionnaire covered the areas on Socio-demographic, Fertility Preferences and Unmet Need aspects.
2. Pretesting of the questionnaire: Pretesting of the questionnaire was done in Hasposa VDC of Sunsari District. Married women of reproductive age group were interviewed. Modification was done in the questionnaire after pretesting for ambiguity or difficulty to understand for respondents.

Data processing:

- i. Editing: The raw data was edited on the same day of collection to detect errors and omissions and to correct in time. The purpose of data editing was to make sure that the data was accurately filled, consistent, uniformly entered, complete and well arranged to facilitate coding and tabulation.
- ii. Coding: Coding was done by assigning the numbers to the responses.
- iii. Data entry and tabulation: Data entry and tabulation was done in SPSS 10.0.
- iv. Data analysis and interpretation: The data was analyzed as per the study variables. The study variables were first entered in the SPSS 10.0 program, than the data were entered

accordingly. The calculations were made in percentages and means and the statistical tests were applied where applicable.

ETHICAL CONSIDERATION:

1. The study was conducted after acceptance by ethical committee of BP Koirala Institute of Health Sciences
2. Before conducting the study a written permission was taken from Rangeli VDC.
3. Before starting the interview, each respondent was explained the purpose of the study and verbal consent was taken.
4. Confidentiality of each respondent was maintained.

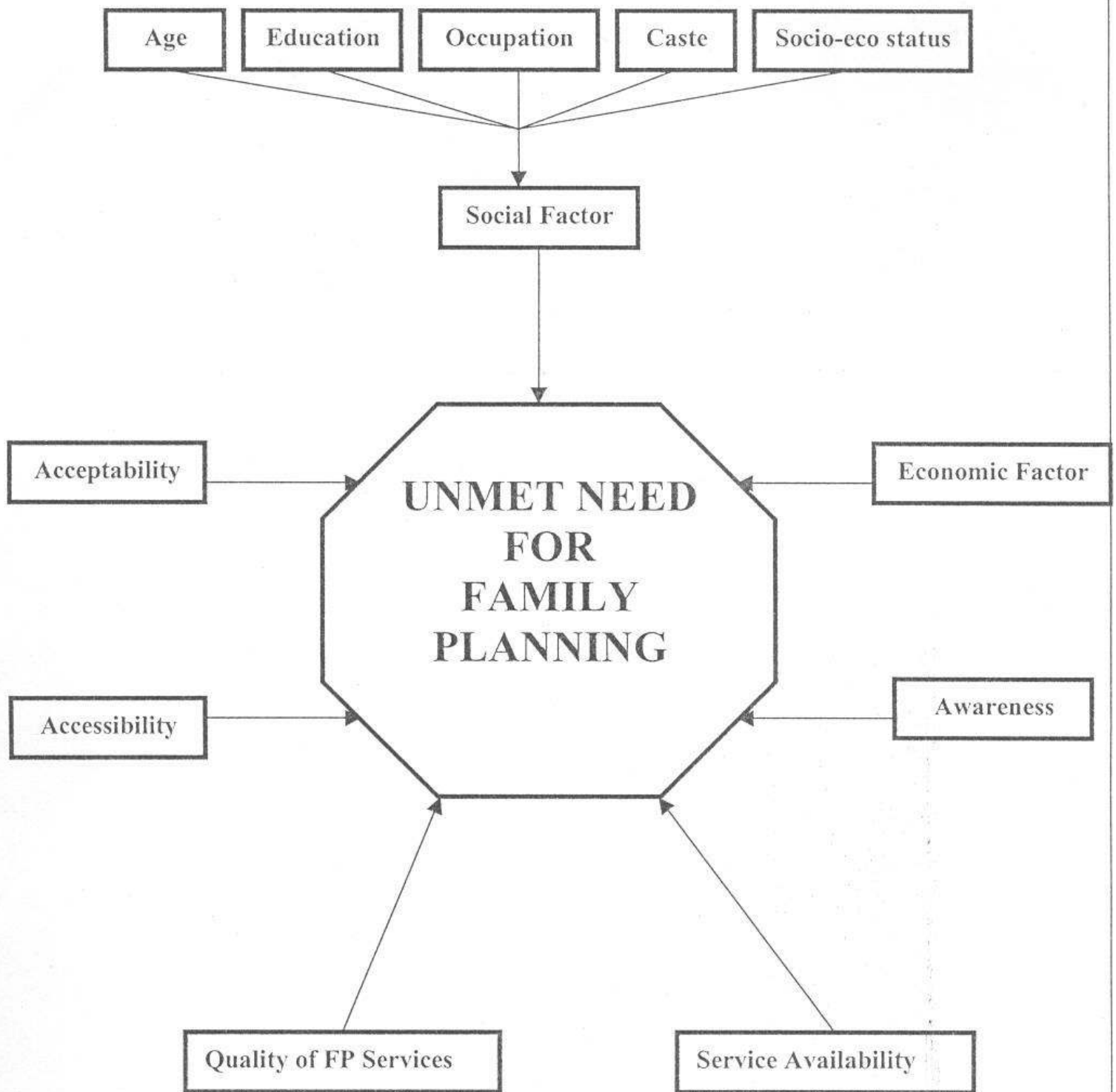


Fig: Conceptual Framework of the Study

CHAPTER - V

RESULTS

1. DEMOGRAPHY:

The total number of MWRA interviewed were 1080 from Rangeli VDC.

1.1. Age Distribution of MWRA

Table No.12 Age Distribution of MWRA

Age group	Frequency	Percentage
20	211	19.6
21-25	317	29.4
26-30	209	19.4
31-35	164	15.2
36-40	106	9.8
41-45	72	6.7
Total	1079	100.0

Age distribution of the study population is given in table no. 12. It is seen from the table that 29.4 percent belonged to the age group 21-25 age group, which was the highest, followed by 19.6 percent and 19.4 percent which belong to less than 20 and 26-30 age group respectively, whereas 6.7 percent of the MWRA belonged to 41-45 age group, the least among the all age group.

1.2. Distribution of Women by Religion:

Table No.13 Distribution of women by Religion

Religion	Frequency	Percentage
Hindu	1050	97.3
Muslim	26	2.4
Buddha	2	.2
Christian	1	.1
Total	1079	100.0

The highest percentages of MWRA, i.e, 97.3 percent, were Hindu by religion, followed by Muslim (2.4 percent). Buddha and Christian were only 0.2 and 0.1 percent respectively.

1.3. *Distribution of Women by Cast*

Table No.14 Distribution of women by cast

Caste*	Frequency	Percent
Major Hill Caste	52	4.81
Hill Occupational	25	2.31
Hill Native	17	1.57
Major Terai Caste	708	65.61
Terai Occupational	250	23.16
Terai Trader	2	0.18
Muslim	25	2.31
Total	1079	100.0

*Source: Sunsari Health Interview Survey

Cast distribution of the study population is given in table 14. It shows that the Major Terai Caste were highest (65.61%). The next highest 23.16% were in Terai Occupational Caste. 4.81 percent of MWRA belong to Major Hill Caste followed by Hill Occupational and Hill Native with 2.31 and 1.57 percentages respectively. Muslims were 2.31 percentages.

1.4. *Educational Status of the Women and their Husband:*

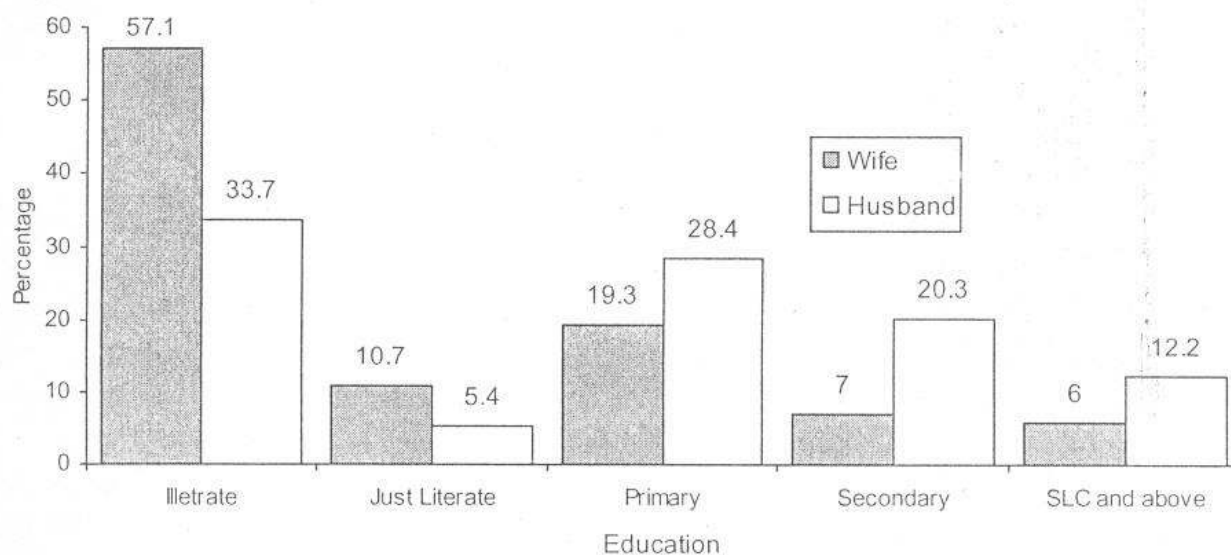


Fig. 5

Educational Status is given in Figure 5. From the figure, it is seen that 57.1 percent of wife and 33.7 percent of husband were illiterates. Surprisingly, more wives (10.7%) were just

literate in contrast to the husbands, who were only 5.4%. The percentages of husband were higher (12.2%) than wife (6.0%) in higher level of education, i.e., SLC and above. 19.3% and 28.4% of wife and husbands respectively were educated upto Primary classes. Secondary level education was obtained by 7% of the women and 20.3% husband.

1.5. Occupational Status of Wife and Husband:

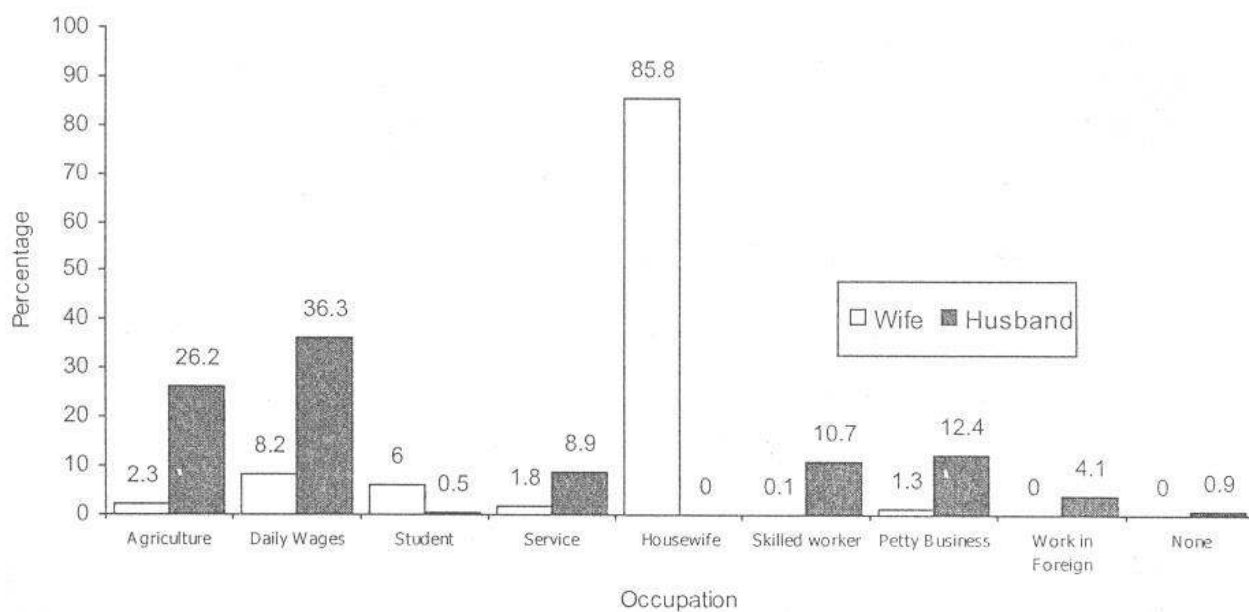


Fig. 6

Occupational Status of the women and their husband is given in Figure 6. Most women were housewife (85.8%) by occupation, whereas least (0.1%) of the women were skilled worker. Other women were in daily wages (8.2%), Student 6%. Agriculture 2.3%, Govt. Service 1.8% and Petty business 1.3%. On the other hand, 36.3% of the husband were working on daily wages followed by agriculture (26.2%) and petty business (12.4%). 0.9 percent were not working at all and 0.5% were students. By occupation 10.7% were skilled worker and 8.9% were in HMG service, whereas 4.1% were working in foreign country.

1.6. Distribution of Women by Type of Family:

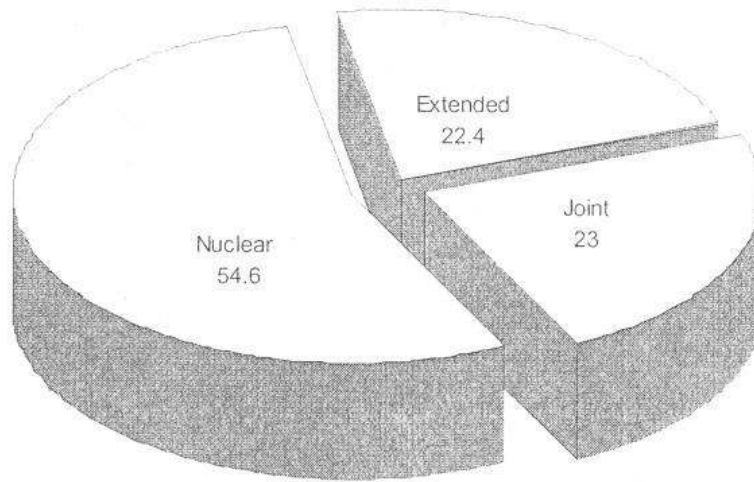


Figure 7

Distribution of women by type of family is given in Figure 7. About 55% of the women were living in nuclear family, whereas living in joint family and extended families were 23 and 22 percent respectively.

1.7. Distribution of Women by Total Number of Living Children:

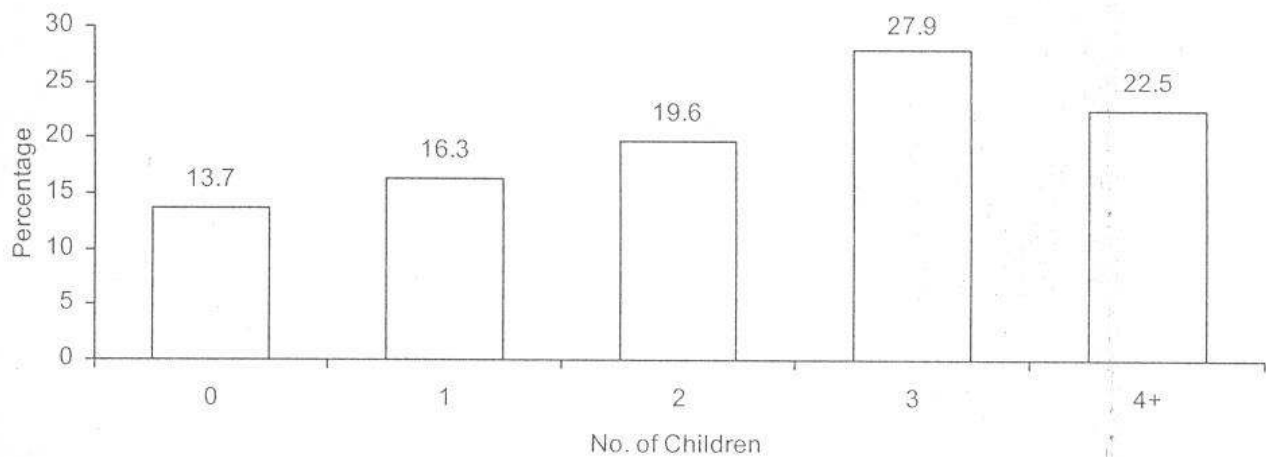


Fig. 8

Figure 8 shows the distribution of women by number of children. 27.9% of the women had 3 children which is followed by 22.5% of women having 4 or more children. Those women who were having only 2 or 1 children were 19.6 and 16.3 percent respectively. 13.7% of women didn't have any children.

1.8. Composition of Women according to number of Sons and Daughters:

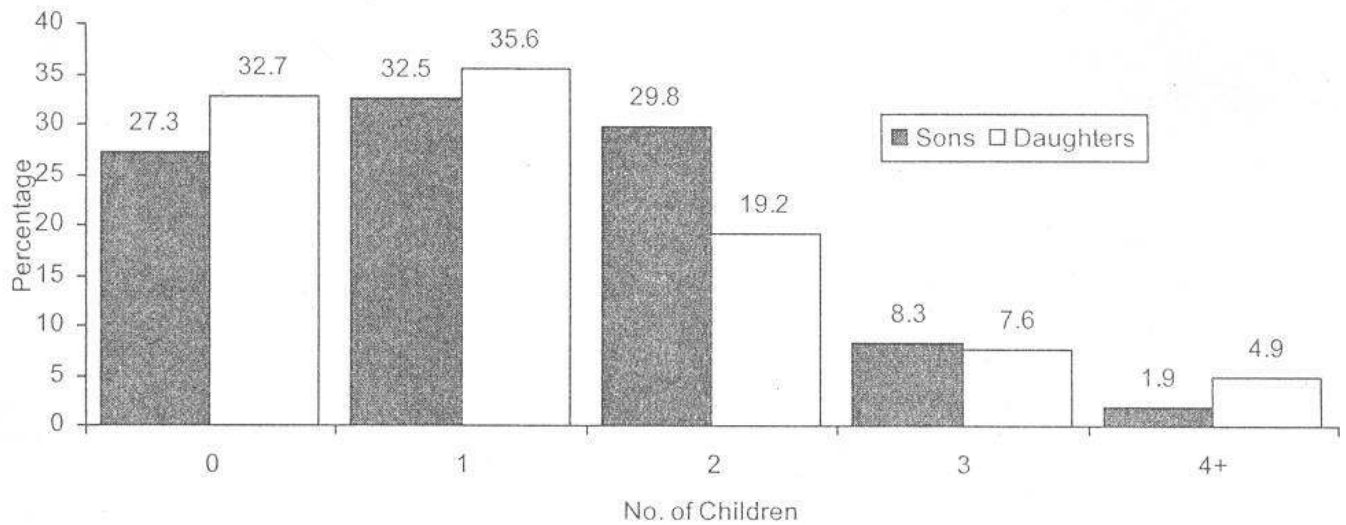


Figure 9

Figure 9 shows the distribution of women by number of sons and daughters. Women having at least one son or daughter were 32.5 and 35.6 respectively, whereas women having two sons or daughters were 29.8 and 19.2 respectively. Having four or more children were less common (1.9 and 4.9).

1.9. Women's mean age at marriage:

The mean age at marriage was 16.20 among married women of reproductive age group.

1.10. Distribution of women by Socio-economic Status:

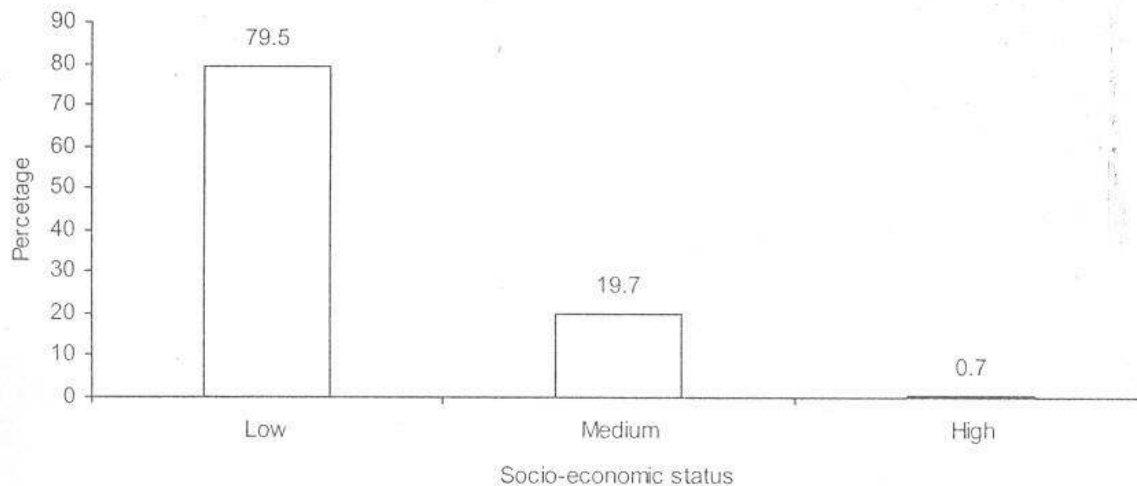


Fig 10 *

Fig 10 shows the economic status of married women of reproductive age group. From the figure, about 80% of the women were from low socio-economic status, whereas about 20% of

the women were from medium socio-economic status. Only less than one percent of the women were from high socio-economic status.

2. FERTILITY PREFERENCES:

Fertility preferences are also an important topic in the research of unmet need. Information on fertility preferences is useful as an indicator of general attitudes towards childbearing and the possible future course of fertility. Moreover, data on fertility preferences are also useful for assessing the unmet need for family planning and the number of unwanted births in the population. Although the fertility preferences have been the subject of controversy, questions in the research is able to assess the unmet need and unwanted pregnancies.

2.1. Desire for more children (Fertility Preferences by number of children):

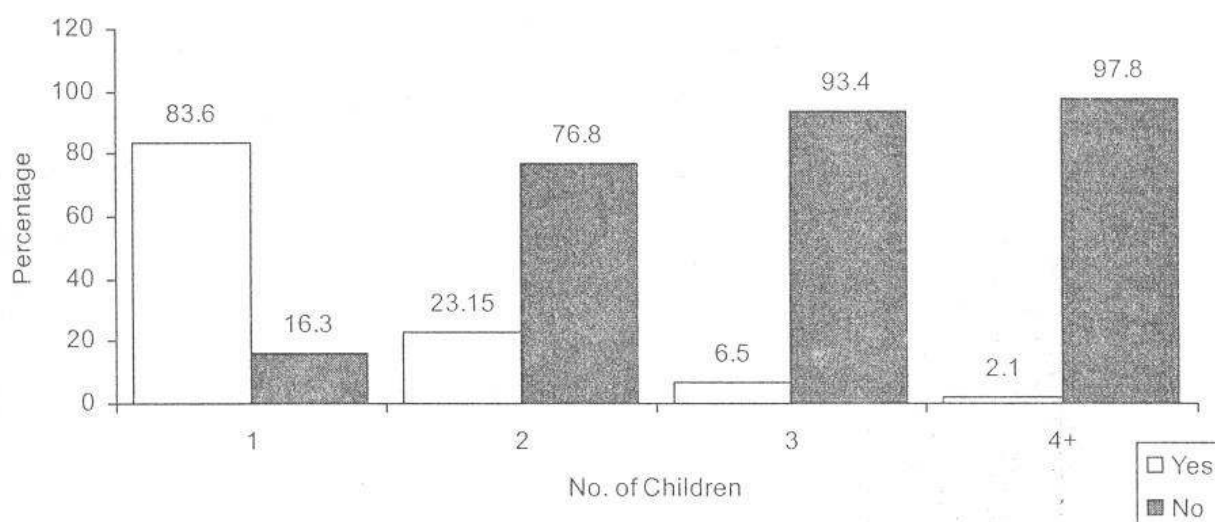


Fig.11

About 83.6% of the women having one child wanted more children, followed by 23.15% of women having two children wanted more children, whereas 93.4% of women having 4 or more children did not want any more children. This shows declining in the desire for more children with the number of children or the preference is inversely proportional to the number of children they have. $X^2 = 418.2$ ($p < .001$).

2.2. Desire for more children (Fertility Preferences by women's age):

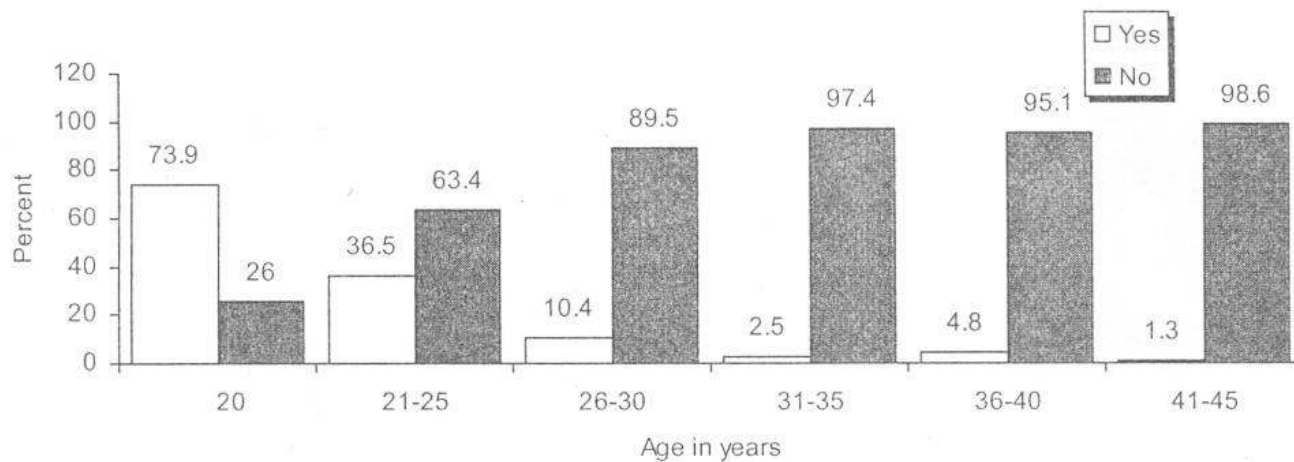


Fig. 12

Fig 12 shows the fertility preferences of women by age group. 74% of women aged 15-20 wanted more baby followed by 37% of women of 21-25 age group, whereas only 2% of women age group 41-45 wanted more baby.

2.3. Fertility Preferences by women's age among pregnant women:

Wanted Pregnancy	20	21-25	26-30	31-35	Total
Yes	56(100)	46(95.8)	20(95.2)	6(75)	128
No	0	2(4.1)	1(4.7)	2(25)	5
Total	56(100)	48(100)	21(100)	8(100)	133(100)

Figures in parenthesis are percentages

Table 15

According to table no. 14 age group 15-20 had no unwanted pregnancy followed by 4.1% of women age group 21-25 having unwanted pregnancy, whereas 25% of women age 31-35 had unwanted pregnancies. Further age group didn't have any pregnancies. This shows increasing in unwanted pregnancies with increasing in age group.

3. UNMET NEED FOR FAMILY PLANNING:

3.1. Need for Family Planning

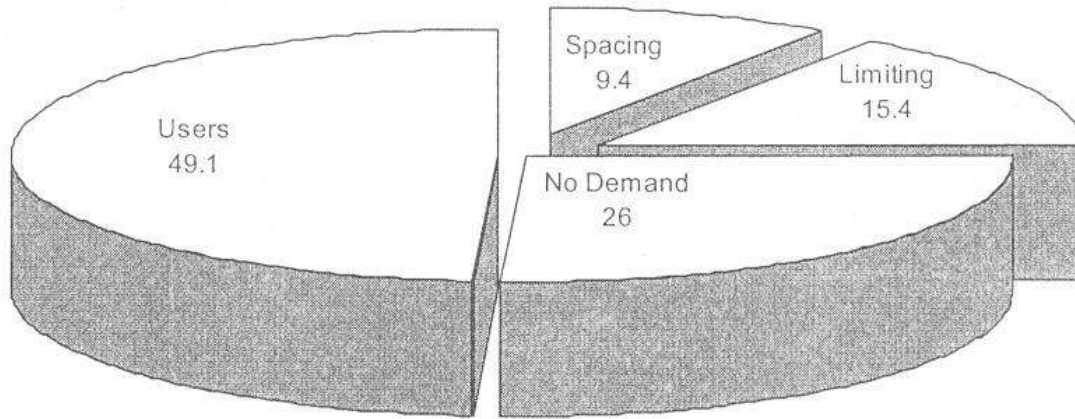


Fig.13

Fig 13 shows Need for family planning methods. It shows that about 24% of the married women had unmet need for family planning- 9% for spacing purposes and 15% for limiting births. Together with the 50% who were currently using a contraceptive method, the total demand for family planning among currently married women was 74%. The current contraceptive prevalence rate among married women was 50 percent. If all women who said they wanted to space or limit their children were to use methods, the contraceptive prevalence rate would be from 50 percent to 74%.

3.2. Unmet Need for Family Planning and its association with women's age:

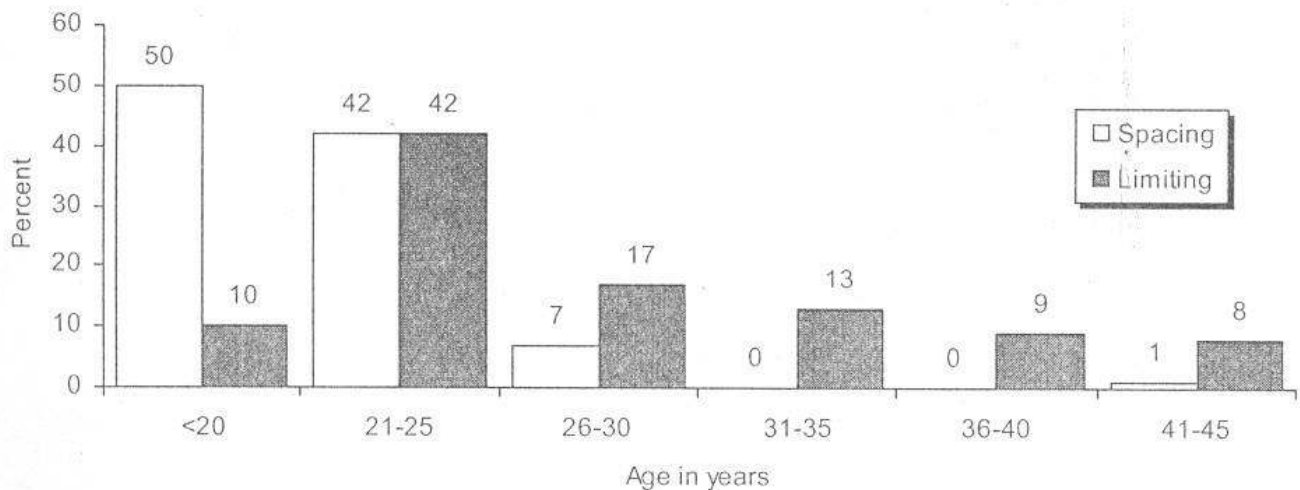


Fig. 14

Fig. 14 shows need for family planning according to the age group. As expected unmet need for spacing is highest among younger women, while the unmet need for limiting childbearing is higher among older women. The total unmet need for family planning decreases with age.

3.3. Unmet Need for Family Planning and its association with religion:

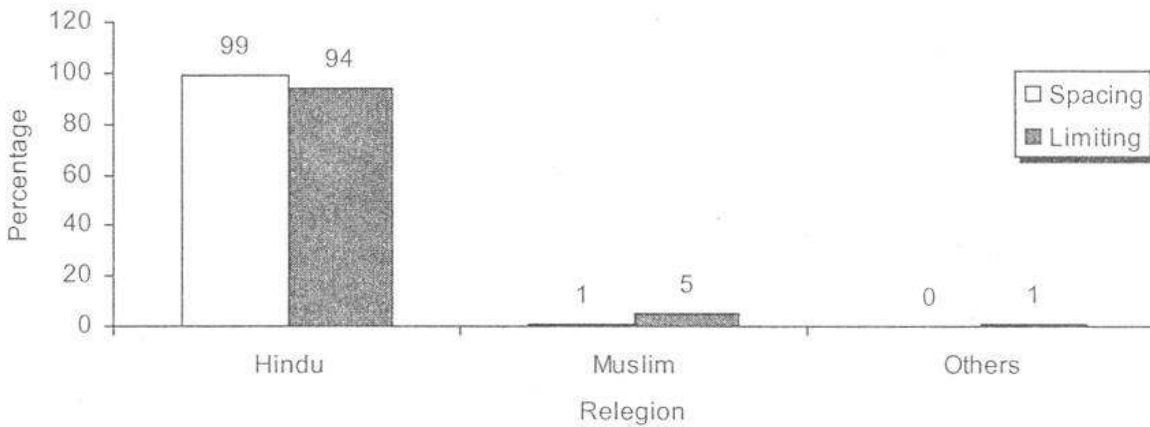


Fig. 15

Most of the women (99% and 94% for spacing and limiting respectively) with unmet need for family planning were Hindu by religion, whereas a few (1% and 5% for spacing and limiting) women were Muslim by religion. Only a very few percent of women (1%) were in other groups (Boudha or Christian). $X^2=30.239$ ($p<0.003$)

3.4. Unmet Need for Family Planning and its association with Husband's Education:

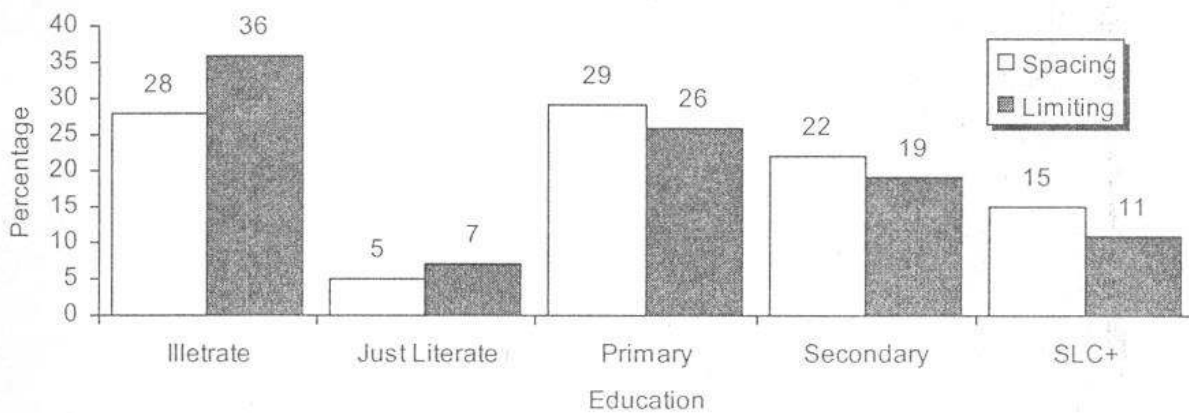


Fig. 16

Fig. 16 shows association between Unmet Need and educational status of the husband of the study population. Unmet need is lower among women's husband with at least a SLC+ than among less educated women's husband. Spacing was higher among educated women's husband than less educated women's husband. SLC+ educated women's husband had 15 and

11 percent need for spacing and limiting respectively, whereas illiterate women had 28 and 36 percent need for family planning for spacing and limiting respectively.

3.5. Unmet Need for Family Planning and its association with Women's Education:

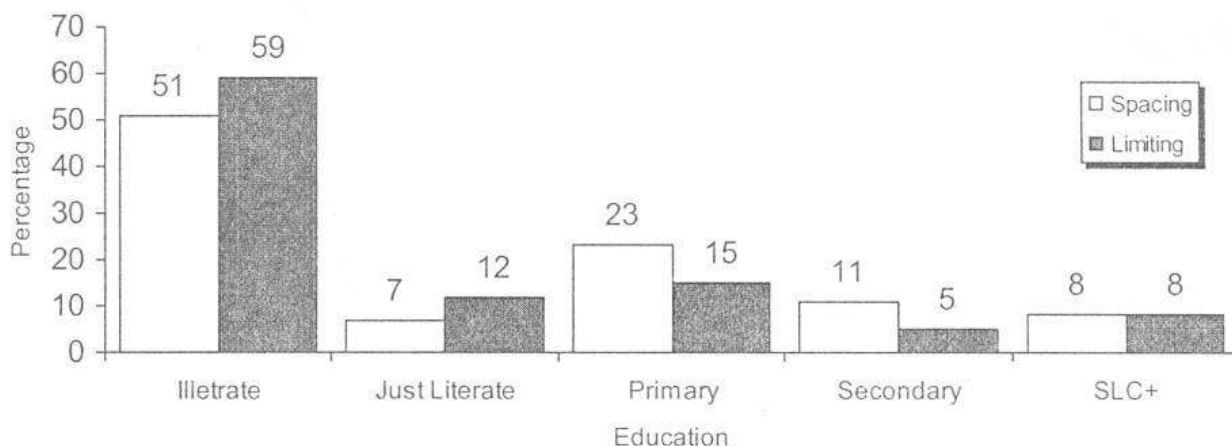


Fig. 17

Fig. 17 shows unmet need and its association with educational status of women. Unmet need decreases with the education of the women, 51% of Illiterate women had unmet need for spacing and 59% limiting whereas women with SLC plus education were only 8 percent for both spacing and limiting.

3.6. Unmet Need for Family Planning and its association with Type of Family:

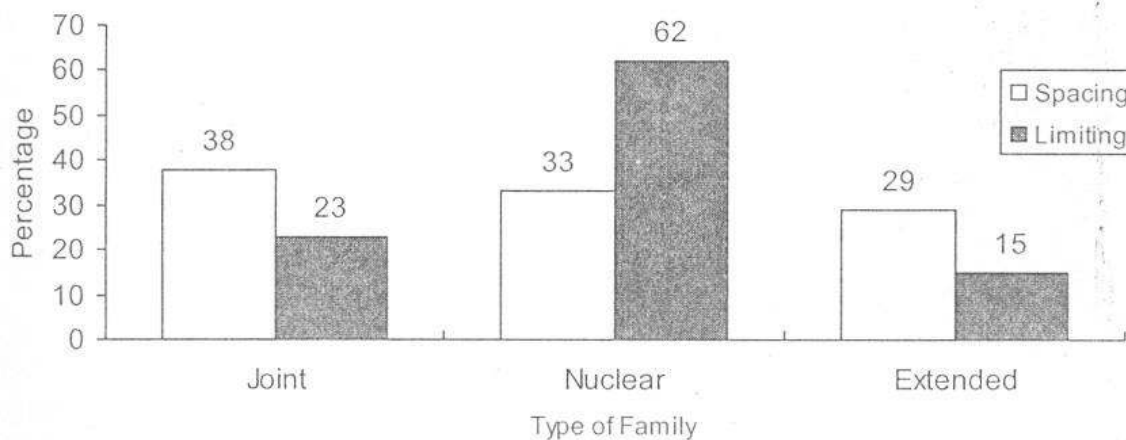


Fig. 18

Fig. 18 shows the relationship between unmet need and type of family. Figure shows that unmet need in nuclear type of family was highest (51%), whereas women in extended families had the lowest unmet need (20%). Limiting is higher (62%) in nuclear family than spacing (33%). $X^2=94.13$ ($p<0.0001$)

3.7. Unmet Need for Family Planning and its association with Socio-economic Status:

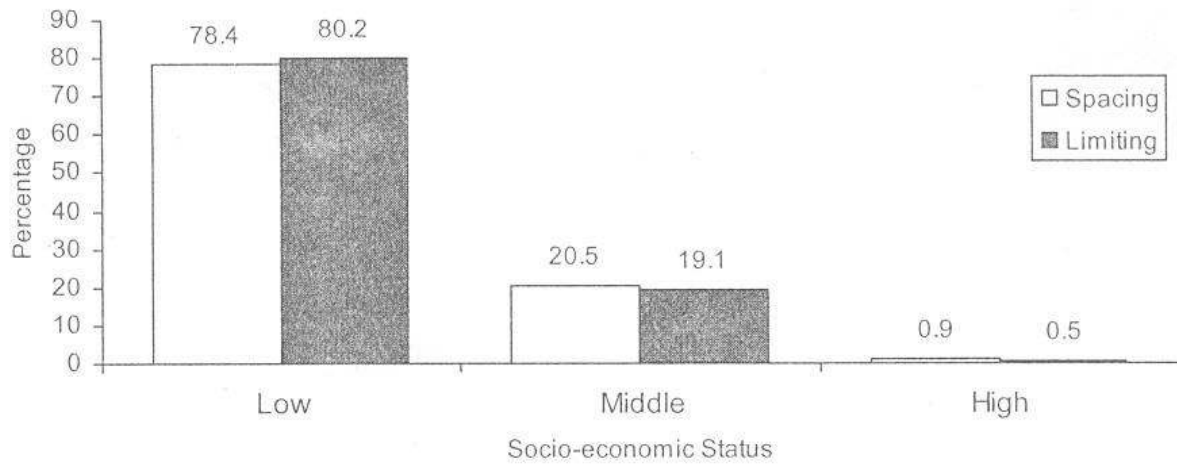


Fig. 19

Fig. 19 shows that about 80% of the women having unmet need had low socio-economic status, whereas less than one percent of women with unmet need were from high socio-economic status. About 20% of the women were from middle socio-economic class.

3.8. Distribution of women by knowledge of Family Planning Methods:

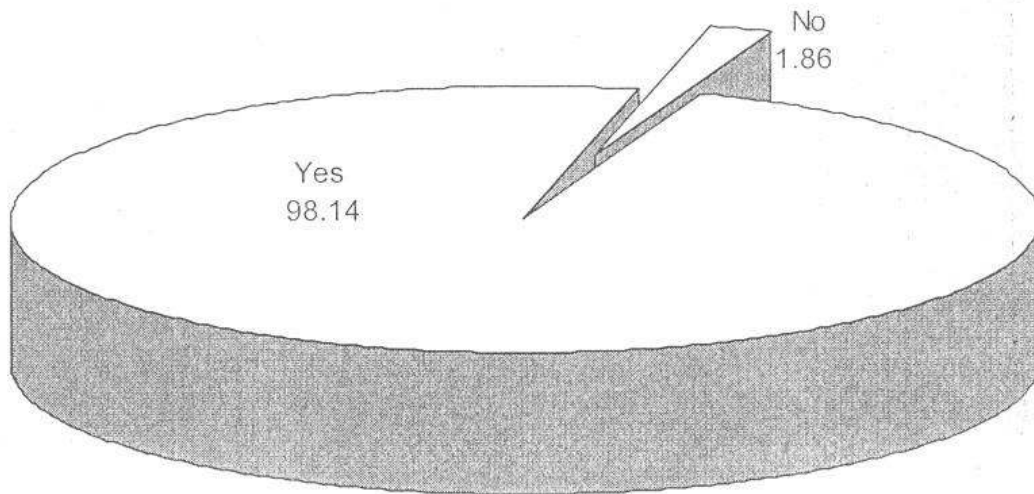


Fig. 20

Fig. 20 shows the distribution of women by knowledge of Family Planning Methods. From the figure, about 98% of women had some knowledge of Family Planning methods, whereas only a less percentage (1.86%) of women didn't know.

3.9. Percentage of women who know specific contraceptive methods:

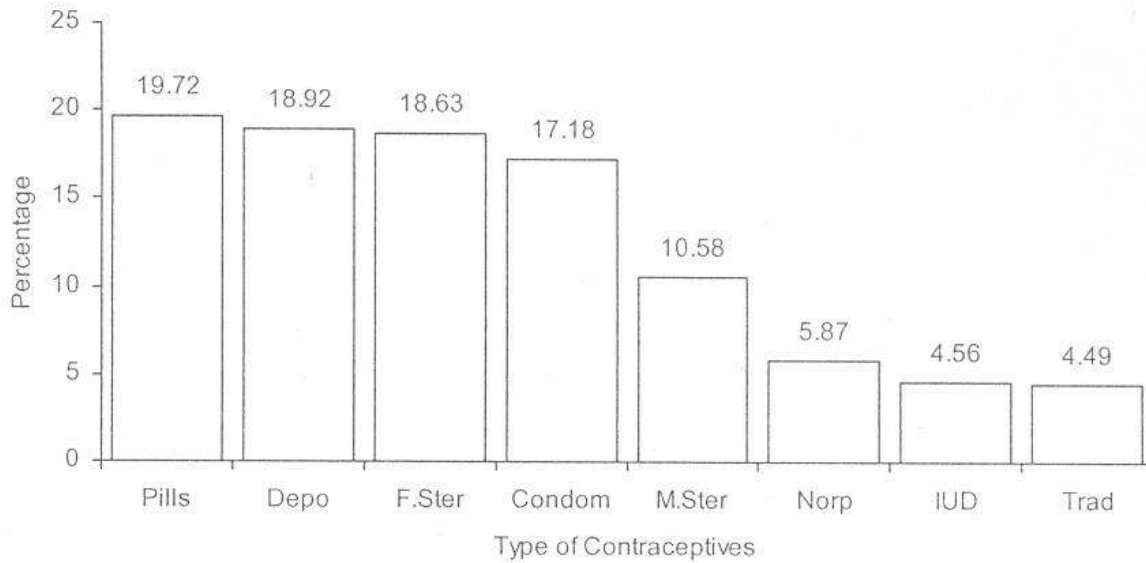


Fig. 21

Fig. 21 shows the percentage of MWRA, who know specific contraceptive methods. Knowledge regarding Pills, Depo and Sterilization were about 19% of women. The least known contraceptive methods were Traditional method, and IUD which were mentioned by only about 4 percent of the women. Condom was also one of the methods known by more women i.e. 17%.

3.10. Percentage of women by their desire on more knowledge of Family Planning Methods:

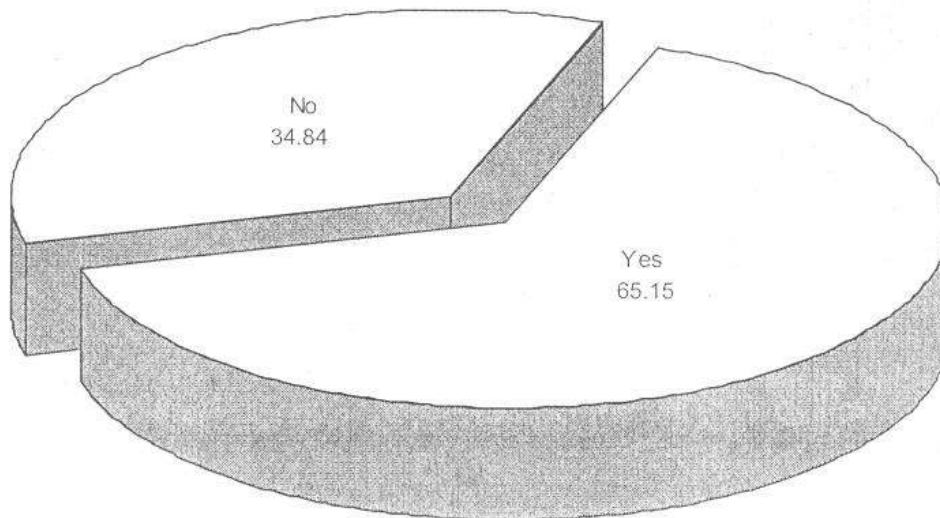


Fig. 22

Fig. 22 shows the distribution of the women by their desire on more knowledge of Family Planning methods. Two-third of the women wanted more knowledge on Family Planning

methods whereas one-third of the women didn't want any more information on family planning methods.

3.11. Percentage of women by access to Contraceptive:

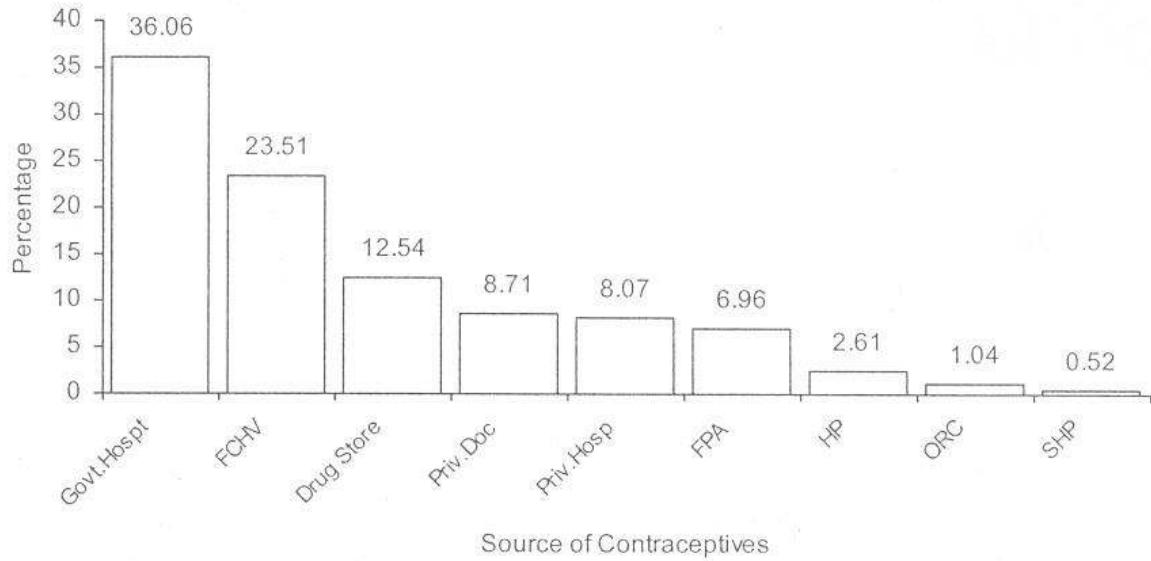


Fig. 23

Fig. 23 shows the women's access to the contraceptives. About 36% of the women had access to the Government Hospital (District Hospital) for contraceptive followed by FCHV (24%). As there were no SHP and HPs, women's access to these institutions are very low (above graph indicates the SHP and HP of nearby VDCs). A few percentage of women, i.e. 9% and 8% had access to Private Doctor and drug stores respectively.

3.12. Percentage of women by fear of using Contraceptive Methods:

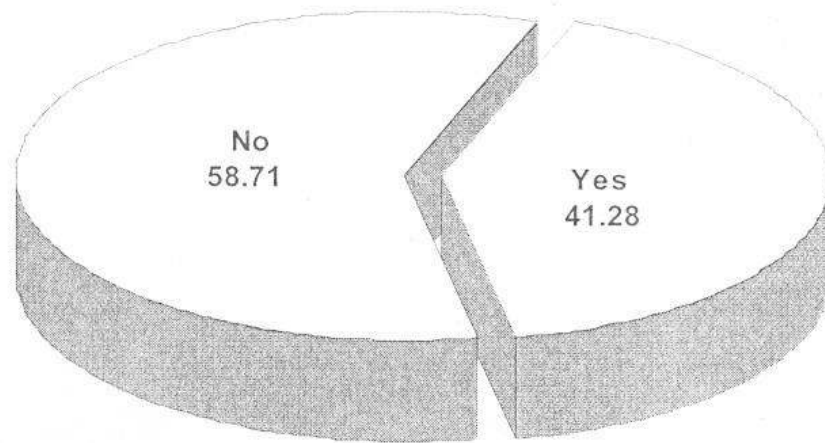


Fig. 24

Fig. 24 shows the distribution of women according to whether they fear using family planning methods. About 59% of the women didn't fear using methods, whereas 41% of women feared using contraceptive methods.

3.12. Percentage of women by reason for not using Contraceptive Methods:

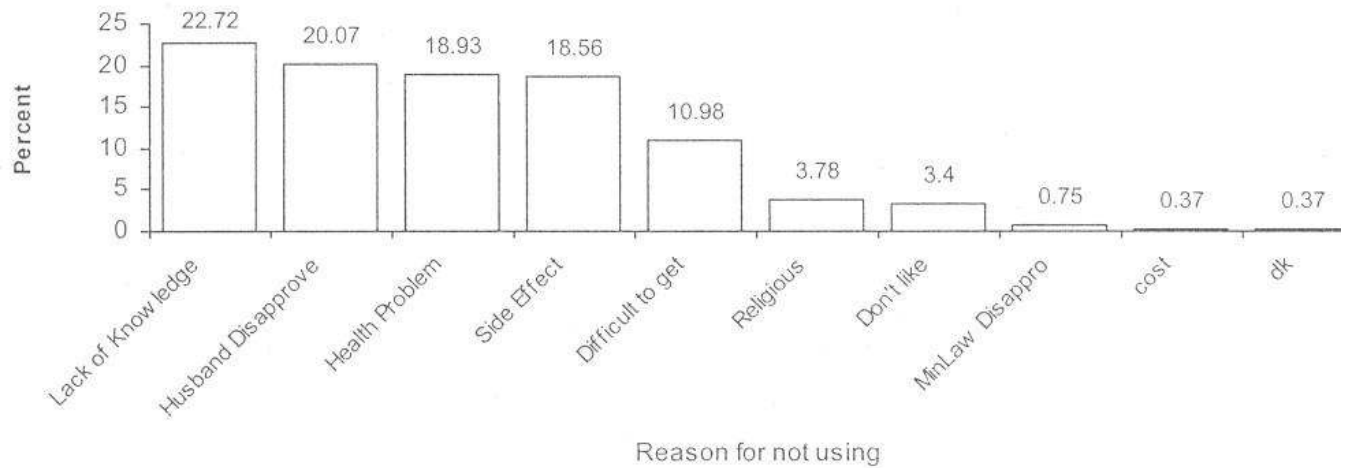


Fig. 25

Above graph shows that lack of knowledge was the most common reason for not using contraceptives (23%), followed by disapproval from the husband (20%) and Health Problems and Side Effects (18%). The least common reasons were cost and religions.

3.13. Percentage of women by decision making regarding Family Planning Methods:

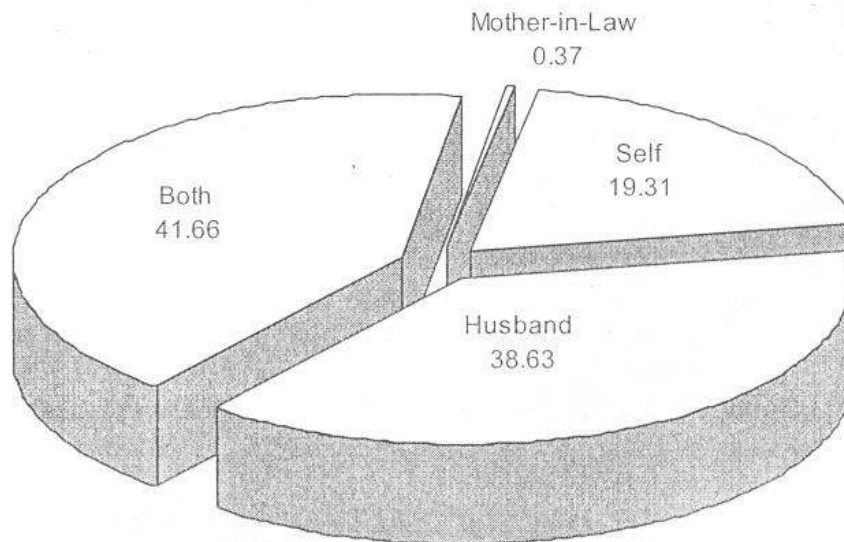


Fig. 26*

Fig. 26 shows the percentage of women who takes decision on Family Planning method herself or other family members. Majority of the women (42%) took the decision on use of

Family Planning methods along with their husband, followed by about 39% of women, whose husband used to take decision on choice of Family Planning methods. Only 0.5 percent of women's mother-in-law interfered in the choice of family planning methods.

3.14. Percentage of women by decision making regarding no. of Children:

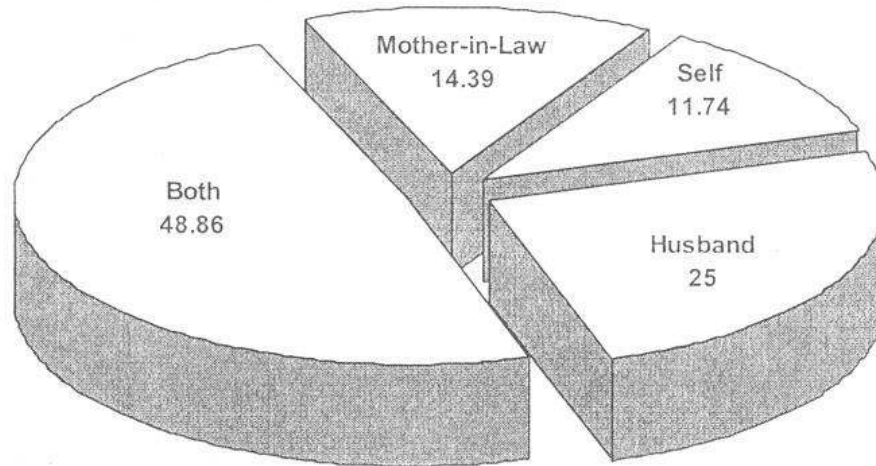


Fig. 27

Fig. 27 shows the distribution of women by the family members who used to take the decision on number of children. About 79 percent of women took decision themselves along with their husband in case of number of child bearing, followed by 25 percent of women's husband taking the decision on number of childbearing. Women herself taking decision on number of childbearing were very low (12%).

3.15. Percentage of women by husband's knowledge on Family Planning Methods:

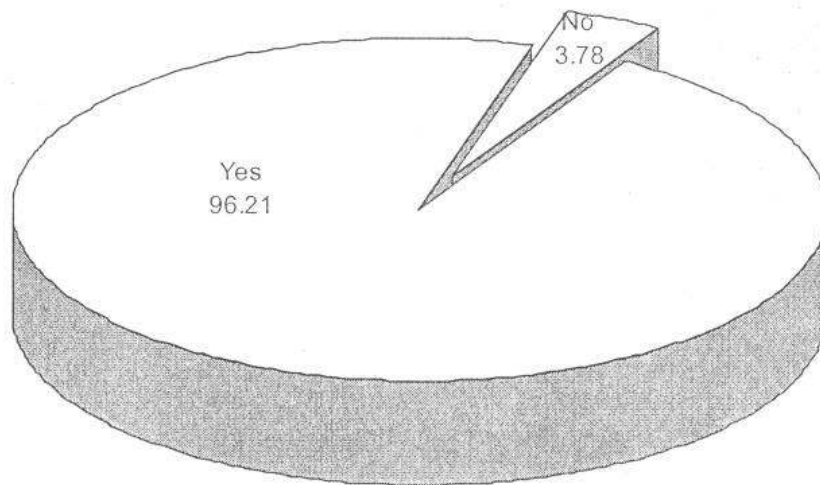


Fig. 28

Fig. 28 shows women's husband's knowledge on Family Planning methods. About 96% of all husband had knowledge on methods of family planning. Only 4% of women's husband didn't have knowledge on family planning methods.

3.16. Percentage of women who ever used Family Planning Methods before:

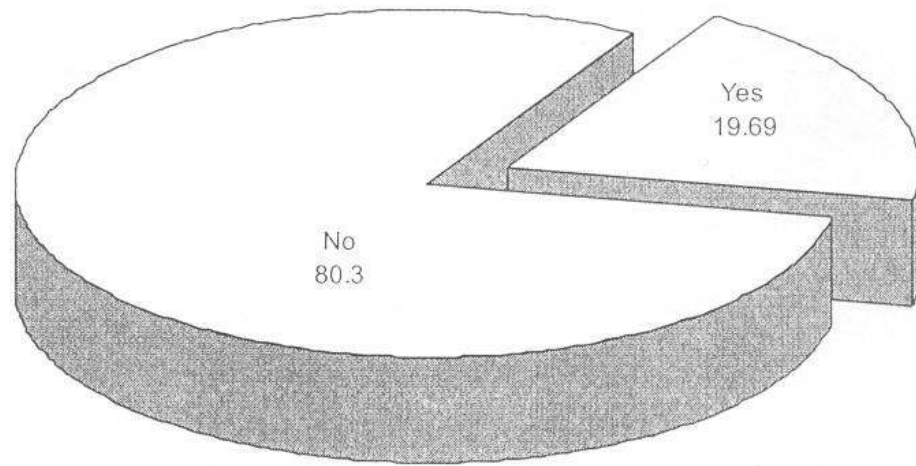


Fig. 29

Fig. 29 shows the percentage of women who had ever before used family planning methods. 80% of the women with unmet need didn't used family planning methods before. Only 20% of women had used family planning methods before.

3.17. Percentage of women intends to use Family Planning Methods in future:

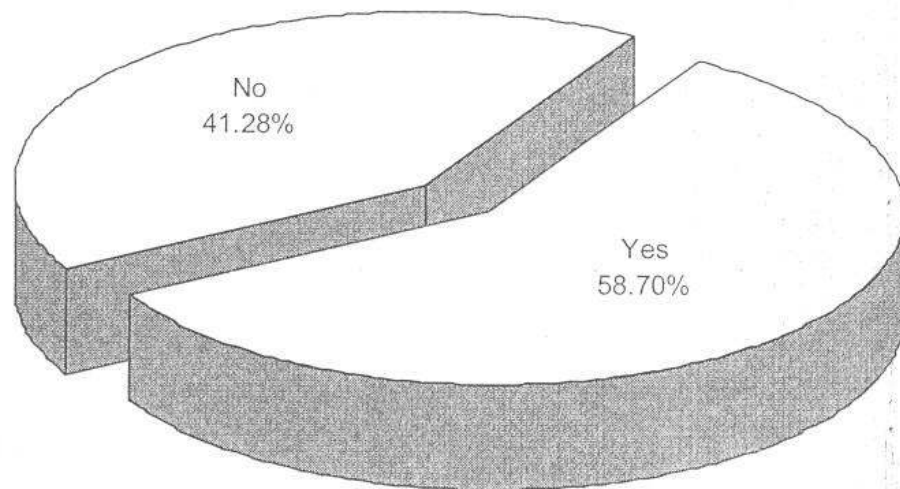


Fig. 30

Fig. 30 shows the intention of the women to use contraceptives in the future. About 58 percent of the women intend to use contraceptives in the future whereas 41 percent of the women did not want to use it in future.

DISCUSSION

By responding to the concerns of women with unmet need, programs can serve more people and serve them better.^{38(69,178)} Programs can respond best if they have a strategy that focus on women with unmet need as a distinct audience and clientele.

PREVALENCE OF UNMET NEED:

Millions of women would prefer to avoid becoming pregnant either right away or ever, but they are not using contraception. These women have an unmet need for family planning.³⁹

Standard measure of unmet need was principally developed by Charles Westoff and he formulated that the unmet need group includes all fecund women who are married or living in union – and thus presumed to be sexually active – who are not using any method of 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. Those who want to have no more children are considered to have an unmet need for limiting births, while those who want more children but not for at least two more years are considered to have an unmet need for spacing births.³⁹

As Ruth Dixon-Muller and Adrienne Germain have pointed out, the standard formulation does not identify the full extent of need for family planning.³⁹

Karen Foreit and Colleagues have called this broader formulation the unmet need for “appropriate contraception”. For example, contraceptive users may need a more appropriate method because their current method causes side effects or because they are using a method best suited to spacing births when in fact they want no more children.³⁹

The limitation, Westoff has observed in the standard formulation is that it does not consider unmet need among unmarried women, including unmarried young adults, who are sexually active and at risk of unintended pregnancy.³⁹

This study measures the unmet need according to expanded formulation, which excludes the unmarried women and unmarried young adults, but includes the pregnant women.

Present study revealed that 25 percent of married women have unmet need for family planning services, 9 percent for spacing and 16 percent for limiting. 49 percent were using contraception and 26 percent of married women had no demand.

The Demographic and Health Survey 2001 showed that 28 percent of currently married women in Nepal have an unmet need for family planning services, 11 percent for spacing and 16 percent for limiting births. At the same time, 39 percent of currently married women are using a contraceptive method.⁴⁴

From study of unmet need, conducted in Department of Community Medicine, Calcutta National Medical College, India in a Immunization Clinic set revealed that 23.1 percent of women had unmet need.⁴⁶ A study on hospital setting may show less prevalence than a study on community. The reason may be that the women coming to the hospitals are more educate, aware regarding health seeking behavior. And most of those attending immunization clinic, may not come to the hospital for their own problems.

A study on unmet need for family planning in Nepal by S.Thapa showed that the unmet need in Nepal was 27.7 percent in 1991, and 31.4 percent in 1996. The study showed that 22.7 percent in 1991, and 28.5 percent in 1996, had met the need for Family planning for spacing or limiting purposes. Unmet need during 1991 – 96 increased by 0.74 percent.⁴⁷

Westoff and Bankole estimated the level of unmet need in “Explanation of Unmet Need for Contraception in chitwan, Nepal” using the procedure employed for data analyses by the Demographic and Health Surveys.³⁰ From their study approximately 30 percent of married women found to have unmet need for family planning. Approximately 17 percent of these women wished to limit childbirth and approximately 13 percent wished to space their children.¹⁵

Here the percent of women wanted to limit are higher as in all other studies from Nepal. The reason may be the culture of early marriage (16 years in our study). At the age of 25 all the women have already more children and they want to go for permanent methods, so as to get rid of child bearing.

A survey conducted in 1986 in Nepal indicated that currently married fecund women of reproductive age the proportion who either want no more children or who want to delay their next birth was 59 percent.

Table no.16 Unmet Need for Family Planning in Asian Countries

Country	For Spacing	For Limiting	Total
Cambodia 2000	17	15	33
Pakistan 1990-91	16	15	32
Nepal 2001	11	16	28
Philippines 1998	8	11	19
India 1998-99	8	8	16
B'desh 1999-2000	8	7	15
Indonesia 1997	4	5	9
Vietnam 1997	4	4	7
Median	8	9	17

Source: 45

From the above table, only Pakistan and Cambodia, among Asian countries, have higher percentage of unmet need for family planning in comparison to Nepal, the lowest being Indonesia and Vietnam with 9 percent and 7 percent respectively.⁴⁴

Based on DHS and RHS survey data for 60 developing countries, an estimated unweighted average of 21 percent of married women of reproductive age have an unmet need for family planning: 12 percent for limiting births and 9 percent for spacing. Among developing regions, the level is highest in Sub-Saharan Africa, at 24 percent. It is lowest in Latin America and the Caribbean, at 16 percent.⁴⁵

Unmet Need among married women is greatest in Haiti, at 40 percent, and Yemen, at 39 percent. At the other extreme unmet need among married women falls below 10 in Brazil, Colombia, Costa Rica, Indonesia, Mauritius, Puerto Rico and Vietnam.⁴⁵

Among 37 countries surveyed more than once since 1990, unmet need fell an average of 14 percent. Levels of unmet need typically rise as more and more women want to control their fertility and then fall as more and more women use contraception to do so.⁴⁵ In Senegal and Uganda, for example, unmet need grew about 20 percent between surveys. In contrast, declines of 40 percent or more took place in Colombia, Egypt, Ghana and Honduras.³⁹

Thirty percent of currently married women of reproductive age in Uttar Pradesh, India – approximately 8 millions women – have an unmet need for contraception. National Family Health Survey Subject Reports of 1996 showed that this unmet need accounts for 60 percent of total need for contraception (met plus unmet).³³

Erik Klijzing⁵ in his article “ Are there Unmet Family Planning Needs in Europe ?” mentioned that minimum estimates of unmet family planning needs for men and women turn out to be less than 10 percent in all FFS countries examined except Bulgaria (23%), Latvia (13%), and Lithuania (13%). It is possible that this represents a threshold value between more developed and less developed countries. For instance, minimum estimates for unmet need among currently married women of reproductive age in countries of the Middle East and north Africa vary between 11 percent and 22 percent (in Turkey and Egypt), in the rest of Africa between 15 percent and 37 percent (in Zimbabwe and Rwanda), in Asia between 11 percent and 32 percent (in Thailand and Pakistan) and in Latin America between 12 percent and 29 percent (in Colombia and Guatemala). The average for all developing countries together (except China) is about 20percent.¹⁵

A study carried out by Charles Westoff and Akinrinola Bankole in 1998 found that unmet need declined by about 43 percent over a three- year period among a sample of women interviewed both in 1992 and 1995. While 29 percent of women in need were still in need three years later (mostly to limit births), 35 percent had adopted a method by 1995, and another 36 percent had moved into the “other no need” category, which includes women trying to get pregnant and infecund women.³¹

SOCIO-ECONOMIC STATUS

This study showed that unmet need for family planning decreases by the increment in the socio-economic status of the women. In this study, four indicators are taken to calculate the socio-economic status of the study population. One of the direct indicators, income, is not taken, as it is difficult to get the exact income. This method of getting socio-economic status is referenced from Raman V. Kutty, specially developed for India. But there is no socio-economic standard developed for Nepal.

FERTILITY PREFERENCES BY NO. OF CHILDREN

This study showed that 98 percent of the women having 4 or more children wanted no more children whereas only 16 percent of women having one child had no desire for additional children. 94 percent of the women not having any children wanted to have immediately, whereas 52 percent of the women having 3 children wanted to have another only after 2 years.

Demographic and Health Survey 2001 shows that only about 70 percent of the women having 4 or more children, wanted no more children. And 64.7 of women having no children wanted to have immediately, whereas 56.6 percent of women having one child wanted to have another only after 2 years.⁴⁴

A study from Calcutta by Ram R et al showed about 28 percent of women had at least 4 children, whereas 8 percent of women had only one child.⁴⁶

From all studies, it is seen that the desire for more children will decrease with more number of children. In Nepal, the 2 child norms have been developed by the government, and people are exposed to this by media.

FERTILITY PREFERENCES BY WOMEN'S AGE

From DHS 2001 it is revealed that about 30 percent of married women aged between 15-30 express unmet need.⁴⁴

Similar pattern was found in our study too, where most of the women having unmet need were in the same age group.

Similarly, a study on unmet need from Uttar Pradesh, India found that 35-50 percent of married women who had unmet need were in age group 15-30.³³

Similarly, a study in Calcutta National Medical College by Ram R et al revealed 20-30 percent of women lie in the same age group as in other studies.⁴⁶

Tuladhar J.M. et. al in their study of unmet need in Nepal also found 57.6 percent of women with unmet need were between 15-30 years age. This shows that unmet need is high in more fertile age group.

So the family planning program should address women with unmet need focusing this age group so as to increase the contraceptive prevalence rate and decrease the unmet need.

WOMEN'S EDUCATION

Our study showed that about 56 percent of illiterate women had unmet need and only 8 percent of the women having higher education had unmet need. It indicates that unmet need is inversely proportional to level of education.

Similarly DHS 2001 of Nepal – unmet need for family planning is negatively associated with women's level of education, ranging from a high of 28 percent among women with no education to a low of 21 percent among women with at least an SLC.⁴⁴

As the level of education increases, people become more aware by learning, listening and perceiving themselves the benefit of contraceptive methods. Illiterate people have less time to think on other aspects of life, as they are always busy in hand-to-mouth. Those with higher education have easy access to both knowledge and contraceptive methods.

Sharon Stash on "Explanation of unmet need for contraception in Chitwan, Nepal" mentioned that 77 percent women without schooling had unmet need, whereas schooling at least up to some grades decreases the percentage of unmet need.¹³

But, a study from Uttar Pradesh on unmet need for family planning showed that the percentage of unmet need for both literate and illiterate were similar(30percent).³³

Tuladhar J.M et al in a study of unmet need in Nepal showed that about 43 percent of women with no schooling had unmet need, whereas only 11 percent with higher education had unmet need.⁴⁰

TYPE OF FAMILY

Our study showed that more than half of the women with unmet need were living in nuclear family, and only one-third were living in joint family. The reason may be that those living in nuclear families wouldn't get advice from the senior members of the family. But, in some communities where a decision maker were elderly and disapproves, the percentage of unmet need will be higher in joint family. As a study from Uttar Pradesh by Radha Devi in National Family Health Survey Subject Reports, showed the data that 63 percent of women with unmet need were living in joint family whereas only 37 percent were in nuclear.³³ Elder members form joint family has more past experiences, which can be transferred to their children. So use of contraceptive may increase in joint type of family. But if there is culture of not using contraceptives in those joint families, than there will be disapproval and obviously decrease the use of contraceptives.

KNOWLEDGE OF FAMILY PLANNING METHODS

Findings from 2001 NDHS show that knowledge of at least one modern method of family planning is nearly universal in Nepal. The most widely known modern contraceptive methods among women were female sterilization (99%), male sterilization method (98%), Injectables (97%), the pills (93%). Four in five women know of implants, a little more than one in two women have heard of the IUD,

while two in five women have heard of vaginal methods. A greater proportion of women reported knowing a modern method than a traditional method. Only 55 percent of women know of any traditional methods than modern methods.⁴⁴

In our study, about 99 percent of the women had knowledge on at least one of the contraception method. About 19 percent of the women know about female sterilizations, Pills and Injectables, and 17 percent had knowledge on condom, whereas 11 percent had knowledge on male sterilization. Other methods known were below 10 percent.

One of the reasons for the low reporting of knowledge of a traditional method may be that these methods are not included in the government family planning program and women may be reluctant to mention them since they are not widely accepted.

The high level of knowledge could be attributed to the successful dissemination of family planning messages through the mass media.⁴⁴

A study from Tuladhar J.M et al mentioned the knowledge of family planning methods, in which about 93 percent of the women had heard female and male sterilization. Least heard among women were IUD.⁴⁹

SOURCE OF CONTRACEPTION

According to NDHS 2001, the public sector remains the major source of contraceptive methods in Nepal. The share of the public sector has remained constant over the last five years. Eight percent of users get their methods from the non-governmental sector, mostly from the FPAN and 7 percent get their method from the private medical sector, mostly from pharmacies. In the public sector, 27 percent of the users obtained their contraceptive methods from government hospitals or clinics, 14 percent from government sub-health post. Most contraceptives sold in pharmacies are provided through the Nepal Contraceptive Retail Sales Company.⁴⁴

Our study revealed that about 64 percent of the women were getting contraceptives from the governments sectors. About 13 percent of women had them from drug pharmacies.

All contraceptive methods are available at the Rangeli VDC, except sterilization. Pills and condoms are available through FCHVs at free of cost, Injectables, IUDs and Norplants are available at the District Hospital Rangeli. Though female and male sterilization are conducted in Biratnagar 20km from Rangeli VDC), a separate mobile camp is established once every year in winter season. Initially there was a clinic of FPAN, from where women got counseling as well as all contraceptive methods.

Most women are getting services from the public sectors. It shows that government has good strategies to provide contraceptives methods at free of cost through its peripheral level health institutions. In private sector, most of contraceptives are available at low cost. Nepal CRS company is distributing by social marketing through small outlets.

REASON FOR NOT USING CONTRACEPTION

This study showed that about 23 percent of women didn't use contraceptive due to lack of knowledge, followed by 20 percent of the women did not use due to disapproval from husband, 19 percent and 18 percents had health problems and side effects respectively. About 3 percent of women had religious ground on not using contraceptives; most of them were Muslims by religion.

According to NDHS 2001, nearly one in two women does not intend to use contraception in the future because of fertility related reasons. Most of these women (28%) report themselves to be subfecund or infuecund. Sixteen percent of women do not intend to use because of opposition to use, with most of them citing religious opposition as a reason for nonuse. Twenty-nine percent of women cited method related reasons for non-use, the most important of these being fear of side effects (21%). Women age 15-29 are most likely to cite opposition to use (44%), with religious opposition being the primary reason (36%).⁴⁴

DECISION ON USE OF FAMILY PLANNING METHODS

This study showed that 42 percent of women took decision along with their husband; this revealed that both of the couples were discussing and deciding for their benefit. On the other hand, as being a male dominating society, still 38 percent of women were obeying their husband's decision on use of family planning. Only 18 percent of women were deciding themselves. Less than one percent of women were interfered by their mother-in-law while using contraceptives.

DECISION ON NO. OF CHILDREN

Due to high media exposure and increase in the literacy of women, 79 percent of the women decided regarding number of children along with their husband. And 25 percent of women's husbands were deciding regarding the number of children. Only 12 percent had self decision. There were families influences regarding number of children, as 23 percent of women's mother-in-law decide.

EVER USED OF CONTRACEPTION AND INTENTION TO USE IN FUTURE

20 percent of the women with unmet need used contraceptive method before. Intend to use in future were about 59 percent. It showed that most of women with unmet need wanted to use methods, but were not using due to some reasons.

Data on ever used has special significance since it reveals the cumulative success of programs promoting the use of family planning among couples. Ever use refers to use of a method at any time, with no distinction between past and present use. According to NDHS, 54 percent of married women had used the method in the past.⁴⁴

QUALITY OF FAMILY PLANNING SERVICES

Evidence that lack of access to good-quality services is a major reason for unmet need suggest that both good quality and accessibility are important to meeting unmet need. Improving access and the quality of services at the same time could increase contraceptive use further. Such factor as the no. of contraceptive method available, the quality of counseling about side effects, and the attitudes of providers toward their clients are key elements of access and quality.

In the study area, except sterilization, all other methods are available. One of the reasons for unmet need among the limiter may be the lack of sterilization services. But at the distance of 20 km with transport accessibility, male and female sterilization services are available. For those women, who have unmet need for spacing, all methods are available free of cost and easily.

The another factor, quality of counseling about side-effects, is quite adequate, as the FCHV and VHW are always counseling women in the village regarding the good and bad effects of the family planning methods they want to use.

Regarding the attitudes of providers toward their clients, FPAN, Nepal CRS Company and Public Sectors are committed to increase the contraceptive prevalence rate through various programs.

In many countries, offering more methods to more couples would probably reduce unmet need, particularly when combined with improvements in service quality. Even where services are widely available some women still do not have adequate access to them. Hard-to-reach group still need better access to services.

For many other people, services are available, but poor quality stands in the way of their use. Some people do not use available family planning services because of unnecessary or inappropriate requirements for examination and tests, eligibility exclusions, and provider biases that constrain the clients' choice of methods.

The variables studied in our study were accessibility to good-quality services, number of contraceptive methods available. But the counseling parts were not studied.

CONCLUSION

The total numbers of married women of reproductive age group interviewed were 1079. Among them 25 percent had unmet need for family planning, 9 percent for spacing and 15 percent for limiting.

Most of the women interviewed were in age group 21-25 (29%), and least was in old age group 41-45 (6%).

97 percent of the women were Hindu by religion, less than 2 percent were others.

Major Terai cast were highest (65%) among study population, followed by Terai Occupational (23%). About 7 percent of them were belonging to hill cast.

About 57 percent of the married women of reproductive age group and 33 percent of their husband were illiterate. Only 6 percent of the women and 12 percent of their husband had higher education.

Most women were housewife by occupation, least were skilled worker. Most of the women's husbands were working on daily wages, and less than one percent was not working at all.

About 28 percent of women had 3 children; about 14 percent didn't have any children. 33 percent of the women had only one son whereas only 8 percent had 3 children. Similarly 36 percent had only one daughter and 5 percent of the women had 4 or more daughters.

The mean age at marriage of the married women was 16.

About 80 percent of the women were living in lower socio-economical status, only less than one percent were form higher socio-economic stats.

84 percent of the women having one child had desire for more children and 92 percent of the women having 4 or more children didn't want any more. It showed that desire for more children was inversely proportional to the number of children.

Women in 20 age group had strong desire for children whereas women aged 41-45 had less desire for having more children.

75 percent of the women of age 31-35 had unwanted pregnancy.

About half of the women with unmet need were living in nuclear family.

About 98 percent of the women had knowledge about at least one contraceptive method. Among them 19 percent of the women had knowledge on female sterilization, pills and injectables. The least known methods were Norplant and traditional methods.

64 percent of women had source of contraceptive from government sectors. Remaining was from private sector, mostly through social marketing.

About 20 percent of the women were not using contraceptive methods due to lack of knowledge, followed by the husband's disapproval (20%). About 18 percent were not using due to the side effects of the contraceptives or health problems. About 4 percent were not using on religious ground.

42 percent of the women were taking decision along with their husband regarding the use of family planning.

Similarly, regarding the number of children in a family, 79 percent of the couples were taking decision.

Only 20 percent of the women with unmet need had used contraceptives method previously.

About 63 percent of the women with unmet need didn't intend to use contraceptive methods in the future.

58 percent of the women were aware that contraceptive methods were available free of cost.

Only 1.5 percent of the women were not using contraceptives due to the cost.

RECOMENDATION

Three approaches should be part of unmet need program

- Maximize access to good-quality services: Lack of this is a major reason for unmet need. For family planning programs, making contraception more available has been key to raising contraceptive prevalence. There should be a screening camp in the village for women to rule out the eligibility for tubal ligation.
- Emphasize Communication: Many women lack information about contraceptive methods, where to find, how to use and reluctant to try new thing, which they know little about.
- Focus on men as well as women: Husband often influences their wife's reproductive attitudes and determines whether or not they use contraception. Family planning programs may have been hindered by focusing mainly on women since family planning decisions are usually made either by the couple jointly or by the male partner.

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APPENDIX

प्रश्नावली

१. क्रम संख्या:..... २. बाई नं. :..... ३. अन्तर्वाताको मिति :.....

४. नाम :..... ५. उमेर.....

६. धर्म : हिन्दु । मुस्लिम । बौद्ध । किश्चियन । अन्य (खुलाउने).....

७. शिक्षा :

क) विद्यालय जानु भएको छ ? छ । छैन

ख) कति कक्षा सम्म पढनु भएको छ ?

ग) तपाईंलाई पढ्न लेख्न आउँछ ? आउँछ । आउँदैन

८. तपाईंको पेशा के हो ?

क) कृषि ख) दैनिक ज्यालादारी (गैरखेती) ग) विद्यार्थी घ) कर्मचारी ङ) गृहिणी

९. तपाईं कुन स्थानमा काम गर्नु हुन्छ ?

.....

१०. श्रीमानको शिक्षा :

क) श्रीमान विद्यालय जानु भएको छ ? छ । छैन

ख) श्रीमानले कति कक्षा सम्म पढनु भएको छ ?

ग) श्रीमानले पढ्न लेख्न सक्नु हुन्छ ? सक्छ । सक्दैन

११. श्रीमानको पेशा के हो ?

क) कृषि ख) दैनिक ज्यालादारी (गैरखेती) ग) विद्यार्थी घ) कर्मचारी

१२. तपाईंको श्रीमान कुन ठाउँमा काम गर्नु हुन्छ ?

.....

१३. आर्थिक स्थिती :

क) तपाईंको परिवारको जग्गा-जमिन कति छ ?

आफ्नै जग्गा-जमिन :.....

मोहि (आधा भाग आफ्नो) :.....

अधिया :.....

ज्यालादारी :.....

अन्य (खुलाउनुहोस) :.....

ख) यो तपाईंको घर हो ? हो । होइन

ग) घरको छाना (आफै हेरेर उल्लेख गर्ने) :

१) पुराना वा सहरको, २) टिनको, ३) ढलानको, ४) टायलको

५) अन्य (खुलाउने) :.....

घ) तपाईंको घरमा यि बस्तुहरू छन (टिक लगाउने) :

१) बिजुली २) टेलिफोन ३) रेडियो ४) टेलिभिजन ५) साइकल

६) अन्य (खुलाउने) :.....

ड) तपाईंको घरमा क्रमाउनै मान्छेहरु कति जना छन् ?

१ जना

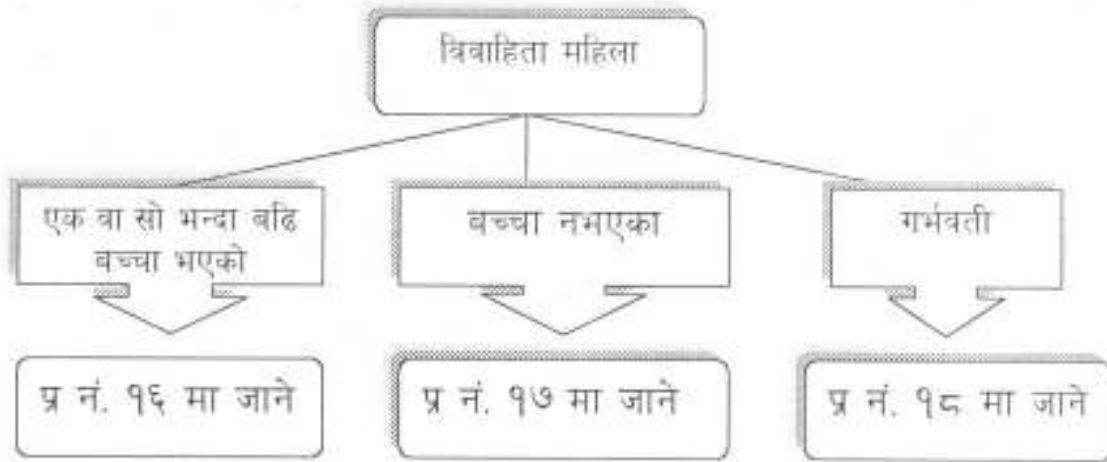
२ जना

३ जना

धेरै (४ जना वा सो भन्दा बढी)

१४. परिवारको किसिम : क) संयुक्त ख) एककल ग) विस्तारीत

१५. तपाईंको विवाह कति साल अगाडी भएको हो ?



१६. क) अहिले तपाईंका जिवित बच्चाहरु कति छन् ?

१) छोरौ :

२) छोरी :

ख) तपाईं अरुपनि बच्चा पाउन चाहनु हुन्छ ? १) चाहन्छु (प्र नं. १९ मा जाने)

२) चाहन्न (प्र नं. ३ मा जाने)

ग) अर्को बच्चा कहिले जन्माउन चाहनु हुन्छ ?

१) तुरुन्तै (अन्तर्वाता समाप्त गर्ने) २) २ वर्ष पछि (प्र नं. ४ मा जाने)

घ) बच्चा हिलो जन्माउन परिवार नियोजनका विभिन्न साधनहरु छन् । २ वर्ष पछि बच्चा जन्माउन ती साधनहरु प्रयोग गर्नु भएको छ ?

१) छ (अन्तर्वाता समाप्त गर्ने) २) छैन (प्र नं. ३ मा जाने)

ङ) बच्चा तपाउनको लागि परिवार नियोजनका विभिन्न साधनहरु छन् । बच्चा नजन्माउनको लागि ति साधनहरु प्रयोग गर्नु भएको छ ?

१) छ (अन्तर्वाता समाप्त गर्ने) २) छैन (प्र नं. १९ मा जाने)

१७. क) पहिलो बच्चा कहिले जन्माउन चाहनुहुन्छ ?

१) तुरुन्तै (अन्तर्वाता बन्द) २) २ वर्ष पछि (तत्तको प्रश्नमा जाने)

ख) बच्चा तुरुन्तै नजन्माउनको लागि परिवार नियोजनका विभिन्न साधनहरु छन् । के तपाईंले प्रयोग गर्नु भएको छ ?

१) छ (अन्तर्वाता बन्द) २) छैन (प्रश्न नं. १९ मा जाने)

१८. क) यो गर्भ तपाईंले धाहेर रहेको हो ?

१) हो (अन्तर्वाता बन्द) २) होइन (प्रश्न नं. १९ मा जाने)

१९. बच्चा जन्माउने तथा ढिलो जन्माउने विभिन्न साधनहरुको बारेमा सुन्नु भएको छ ?

१) छ २) छैन ।

२०. तपाईंलाई थाहा भएको साधनहरुको नाम भन्नुहोस ।

१) पिल्स २) आई यू डी ३) सुई (डिपोप्रोमेरा) ४) कण्डम ५) नरप्लान्ट

६) महिला बन्ध्याकरण ७) पुरुष बन्ध्याकरण ८) बाहिर फाल्नु

९) महिनावारी पछाडीका निश्चित दिनमा श्रीमान संग नसुत्न १०) अन्य (खुलाउनु होस्)

२१) तपाईं यि मध्ये कुनै प्रयोग गर्न चाहनु हुन्छ ?

१) चाहन्छु (प्रश्न नं. २२ मा जाने) २) चाहन्न (प्रश्न नं. २३ मा जाने)

२२) कुन साधन बढि प्रयोग गर्न रुचाउनु हुन्छ ?

१) पिल्स २) आई यू डी ३) सुई (डिपोप्रोमेरा) ४) कण्डम ५) नरप्लान्ट

६) महिला बन्ध्याकरण ७) पुरुष बन्ध्याकरण ८) बाहिर फाल्नु

९) महिनावारी पछाडीका निश्चित दिनमा श्रीमान संग नसुत्न १०) अन्य (खुलाउनु होस्)

२३) प्रयोग गर्न नचाहनुको कारण के हो ?

१) ज्ञान नभएर २) श्रीमान नमानेर ३) महङ्गो भएर ४) खराव असर

५) स्वास्थ्य समस्या ६) साधन प्राप्त गर्न गाह्रो ८) धार्मीक कारण ९) परिवार नियोजन मन पर्दैन

१०) थाहा छैन ११) अन्य (खुलाउने)

२४) तपाईं वा तपाईंको श्रीमान परिवार नियोजन सम्बन्धि अरु बढी ज्ञान हासिल गर्न चाहनु हुन्छ ?

१) चाहन्छु २) चाहन्न

२५) तपाईंलाई थाहा छ, कहाँबाट परिवार नियोजन सम्बन्धि सेवा प्राप्त गर्न सकिन्छ ?

१) उप स्वास्थ्य चौकी २) स्वास्थ्य चौकी ३) सरकारी अस्पताल ४) गाँउ घर क्लिनिक

५) स्वास्थ्य कार्यकर्ता ६) प्राईभेट डाक्टर ७) प्राईभेट अस्पताल ८) औषधि पसल

९) थाहा छैन १०) अन्य (खुलाउने)

२६) त्यसता सेवा गर्ने ठाँउ कति टाढा छ ?

१) नजिक (सोही वडामा) २) टाढा (अर्को वडामा) ३) धेरै टाढा (अर्को गा वि स मा)

२७) कुनै पनि स्वास्थ्य कार्यकर्ता स्वयंसेविका वा डाक्टर संग परिवार नियोजन सम्बन्धि सर सल्लाह लिनु भएको थियो ?

१) थिए २) थिएन

२८) तपाईं वा तपाईंको श्रीमानलाई परिवार नियोजनका साधन प्रयोग गर्न डर लाग्छ ?

१) लाग्छ २) लाग्दैन

२९) यदि लाग्छ भने, किन ?

तपाईंको परिवारमा कतिवटा बच्चा जन्माउने वा कहिले बच्चा जन्माउने भन्ने बारेमा कसले निर्णय लिन्छ ।

१) आफैले २) श्रीमानले ३) सासु ससुराले

३१) तपाईंको परिवारका आफू भन्दा ठूला सदस्यले परिवार नियोजन सम्बन्धि सल्लाह दिन्छन् कि दिन्नैन ।

१) दिन्छन् २) दिदैन

३२) यदि दिन्छन भने, कसले र के सल्लाह दिन्छन ?

३३) तपाईंको श्रीमानलाई परिवार नियोजन सम्बन्धि ज्ञान छ ?

१) छ २) छैन

३४) यदि तपाईंले कुनै पनि परिवार नियोजनको साधन प्रयोग गर्न चाहनु भएको खण्डमा तपाईंको श्रीमान वा परिवारका अन्य सदस्यले केहि भन्छन ?

३५) तपाईंको विहे पछि, कुनै यस्तो अवस्था सम्भन्नु हुन्छ, जब तपाईं र तपाईंको श्रीमानले परिवार नियोजनको साधन प्रयोग गर्न चाहन्दा चाहन्दै पनि केहि कारणवश प्रयोग गर्न सक्नुभएको थिएन ? कारण खुलाउनुहोस ।

३६) तपाईंले पहिले कहिले परिवार नियोजनका साधन प्रयोग गर्नु भएको थियो ?

१) थियो २) थिएन

थियो भने, तपाईं सन्तुष्ट हुनुहुन्थ्यो वा स्वास्थ्यको समस्या थियो

३७) तपाईंलाई बाह्य छ परिवार नियोजनका साधन सितैमा पाइन्छ ।

१) छ २) छैन

३८) पैसाको कारणले परिवार नियोजनका साधन प्रयोग नगर्नु भएको हो ?

१) हो २) होईन

३९) के अब तपाईं परिवार नियोजनको साधन प्रयोग गर्नु हुन्छ त?

१) गर्छु २) गर्दिन

४०) यदि गर्नु हुन्छ भने, साधन प्राप्त गर्न को संग सम्पर्क राख्नु हुन्छ ?

४१) यदि प्रयोग गर्नु हुन्छ भने, त्यसको कारण के हो ?

धन्यवाद