

## Extended Abstract

### **Contraceptive Adoption after Unwanted Birth in India: A Calendar Analysis**

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In developing countries like India, the issue of unintended pregnancy in the context of use of contraception has not been explored till date. This study takes advantage of calendar data, which is the first time available in Indian National Family Health Survey (2005-06), to deal with type and time to initiate contraceptive after having unwanted pregnancy. Analysis revealed that, among the group of women who have experience mistimed pregnancy, more than 25 percent using modern spacing method, especially condom followed by the pill. Sterilization used by women who have reported their last birth was unwanted. Surprisingly user of traditional contraceptive method like periodic abstinence and withdrawal was also used by women who have experience unintended pregnancy.

The increased use rate of contraception has been observed in India during last two decades. This increased rate is responsible to some extent to bring out the fertility at the level of 2.68 in the year 2005-06 from 3.39 in the year 1992-93. On the other hand, the level of unwanted fertility is still stagnant and it needs more specific attention as it cannot be declined the same speed as in the case of fertility rate. Further, it has also been observed by Blanc (1982) with the help of cross-sectional data of Latin American and Caribbean countries that although marital fertility has fallen from an earlier time period, the proportion of unwanted births, on average, has increased. Moreover, National Family Health Survey (NFHS) data reports that around one fourth births were unwanted in India in all the three rounds of surveys (IIPS 1995; IIPS & ORC Macro, 2000; IIPS & ORC Macro, 2007).

The high level of unwanted fertility might be adversely affect a country's rate of demographic and, perhaps, indirectly, economic-growth (Blanc, 1982). In addition, various aspects of development like health and economic status are also very much affected by unwanted births. Trussell *et al.* (1999) rightly pointed out that the incidence of unwanted fertility might be relevant to understand the health and well being of individual couples and their children.

The relationship between unwanted pregnancy and contraceptive practice has been addressed in the several studies. Stanley *et al.* (1999) found a high level of unwanted pregnancy among ever married women in India. Previous studies show that among the important determinants of unwanted fertility are: place of residence, age of women, number of living children, child

loss, preceding birth intervals, and measure of economic status (Dwivedi and Ram, 2005; Johnson and Madise, 2009).

The option of the number of births couples exercise will depend upon the ability of couples to plan the timing of births. Although family planning is much more widely available, still couple's ability to control their fertility is limited. About 20 per cent of couples in developing countries reported that, they want to space or limit their fertility, yet currently do not have accessible, affordable or appropriate means to do so. Moreover reasons for which couples are not adopting contraception for the prevention of unwanted pregnancies comprise, lack of access to family planning information and services, personal or religious beliefs, inadequate knowledge about the risks of pregnancy following unprotected sexual relations and opposition from family members.

Literature suggests that adoption of family planning method is not only significant ways to avert unintended pregnancies. The extent to which couples who adopt a family planning method continue to use it, is also very crucial (Cleland and Ali, 2004; Blanc *et al.*, 2002). In this regard quality of family planning services have contributed to increase contraceptive use and their continuation. Several researchers have found high rates of discontinuation due to quality-related reasons (Blanc *et al.*, 2002; Curtis and Blanc, 1997; Ali and Cleland, 1995). Long-term contraceptive use is significantly higher if family planning services offer a choice, over the period of time. Most of women who had not received the contraceptive of their choice had dropped out of the programme within one year compare to their counter parts. A recent study in Indonesia also showed that the contraceptive continuation rate is dependent on the contraceptive choice itself, when applied to the effect of choice for IUD and implants (Steele & Curtis, 2003).

Although a considerable amount of work has been done on the factor associated with an unwanted pregnancy in the developing countries but the issue of contraceptive adoption after having unwanted birth pregnancy in the context of socio-demographic factor is still little understood.

For family planning program and population policy, it is very important to know that those women how have already experienced the unwanted pregnancy whether their timing and type of adoption of contraceptive is differed from those women who have not experienced unintended pregnancy?

Understanding the socioeconomic condition of women who have experience unintended pregnancy and still do not adopt proper contraceptive in terms of time and type of contraceptive is also crucial in ensuring that family planning programmes are able to meet their needs. Therefore, it is proposed to explore the type and time to initiate contraceptive after having unwanted pregnancy. More specifically this paper examines the effect of socioeconomic and demographic factors affecting type and time to initiate contraceptive after having unwanted pregnancy. Further an attempt has been made to link the method attributes on timing of adoption of contraceptive in India.

### **Methods and Materials:**

The Nationwide data from India's latest National Family Health Survey-3 (NFHS-3) conducted during 2005-06 was used for this study. This survey covered a representative sample of 1, 24,385 women in the age group of 15-49 years. Sampling method used under NFHS-3 was multistage systematic random sampling. NFHS-3 collected information of status of births which occurred in five years preceding the survey, and also they collected information about the status of current pregnancy (IIPS & ORC Macro, 2007). To fulfill the objectives of the study, a sample of 36850 currently married or cohabiting with their partners and had a live birth within 5 five years before the survey were included in this analysis. Analysis of data has been carried out after assigning weights.

The outcome of interest is the use of any contraceptive methods (modern or traditional contraceptive methods) after the last childbirth. Information comes from birth and contraceptive use calendar, which is the first time included in the NFHS-III Women's Questionnaire, which records month-by-month all events related to pregnancy, pregnancy outcomes, childbirth, and contraceptive use for 60 months before the survey. The outcome is measured by duration (in months) from the time of the last childbirth to the time that a woman started using a modern method of contraception. At the time of the survey, if a woman had not adopted any contraceptive method, she is considered a censor case.

### **Finding**

Preliminary analysis shows that (Table 1) one third women who have experienced mistimed birth and 37 percent women who have reported, last birth was unwanted were not using any type of contraceptive method. Among the group of women who have experience mistimed birth, more than 25 percent using modern spacing method, specially condom followed by pill.

Sterilization used by women who have reported their last birth was unwanted. Surprisingly user of traditional contraceptive method like periodic abstinence was high among women who have reported last birth was unwanted and withdrawal method was used by women who have experience mistimed birth.

**Table 1:** Type of contraceptive method used according to status of last birth in India, NFHS-2005-06.

Status of Last Birth	Method Use After Last Birth									
	No Method	Pill	IUD	Injections	Condom	Female Sterilization	Male Sterilization	Periodic Abstinence	Withdrawal	Other
Wanted	41.9	6.2	2.6	0.2	8.6	19.2	0.3	6.9	3.0	0.4
Mistimed	33.3	9.9	3.6	0.3	12.1	18.3	0.3	8.2	4.4	0.4
Unwanted	37.2	6.7	1.9	0.3	7.9	24.9	0.6	9.3	2.7	1.1
<b>Total</b>	<b>40.5</b>	<b>6.6</b>	<b>2.6</b>	<b>0.2</b>	<b>8.8</b>	<b>19.8</b>	<b>0.3</b>	<b>7.3</b>	<b>3.1</b>	<b>0.5</b>

Further analysis shows that around one third women who have experience mistimed pregnancy and about 47 percent women who have reported last birth was unwanted still not using any form of contraceptive within six months after having birth. More than two third women who have adopted contraceptive method just after birth to within six months, majority of them experience mistimed birth. Initiation of contraceptive within 6-18 months was mainly those women, who have experience unwanted pregnancy.

**Table 2:** Time to adopt contraceptive according to status of last birth in India, NFHS-2005-06.

Status of Last Birth	Time to adopt contraceptive ( in months)				
	1-6	7-12	13-18	19 - 24	25-59
wanted then	61.5	22.0	8.7	4.1	3.7
wanted later	67.4	22.3	5.5	3.0	1.9
wanted no more	53.4	23.7	11.9	6.0	5.1
<b>Total</b>	<b>61.0</b>	<b>22.3</b>	<b>8.8</b>	<b>4.2</b>	<b>3.7</b>