

## Unintended Pregnancies in Bangladesh: Levels and Correlates

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**Abstract:** Unintended pregnancies are a complex phenomenon in Bangladesh due to various factors. It is found that complex set of relationship exists among the various socioeconomic, cultural and demographic events, which slightly affect the fertility in Bangladesh and can provide us a preliminary idea of how important each variable is by itself. Result shows that women in Bangladesh a significant proportion of pregnancies were unintended and the level of unintended pregnancy was slightly higher among urban women as compared to rural women (32.80% versus 31.00%) according to the bivariate analysis. Findings need to be scientifically used in suitable programs addressing the case of fertility control in the developing countries as well as in Bangladesh.

**Key words:** Unintended pregnancies, contraceptive use, family planning, unwanted, mistimed, logistic regression analysis, Bangladesh

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### INTRODUCTION

Bangladesh has a long history of Family Planning Programme. In 1953, with the initiative of professionals and social workers an organization called Family Planning Association of Bangladesh (FPAB) was founded. The voluntary activities of FPAB received government support in 1958 and the first national Family Planning (FP) program began in 1960, when the government established the Directorate of Family Planning. Between 1961 and 1971, 152 Rural Health Centers (RHCs) were established. The Maternal and Child Welfare Centers (MCWCs) established mainly at the district level (with some also at the Upazila level) provide only the maternal and child health services under the direct control of directorate of family planning (Ahmed *et al.*, 1995).

Since, independence, the government's population policy was based on the need to curb population growth and the programme was treated as a model whereby development goals were achieved through an assertive maternal and child health based family planning. Knowledge of family planning is universal in Bangladesh and the family planning programme slightly affected fertility. Among ever-married women, the most widely known methods of family planning are the pill (100%), injectables (99%) and female sterilization (95%) and condoms (90%); these are followed by the IUD (84%), implants (81%), male sterilization (73%), periodic abstinence (59%) and withdrawal (50%). Since, overall knowledge of contraceptive methods was already high in 2004, little change has taken place. The most notable

change is a decrease in knowledge of the traditional methods of periodic abstinence and withdrawal. The contraceptive prevalence rate for married women in Bangladesh has increased from 8% in 1975 to 56% in 2007, a sevenfold increase over >3 decades. Overall, current contraceptive use has declined by two percentage points in the past 3 years, from 58% in 2004-56% in 2007, but use of modern methods has remained unchanged. A wide range of modern methods, including male and female sterilization, has been made available in both urban and rural areas. The wide gap between urban and rural areas has also been narrowed considerably. Despite this high level of contraceptive use, there have been indications of unintended pregnancies, suggesting the existence of unmet contraceptive needs among couples in the Bangladesh. Given the evidence of unmet needs, a study focusing on this issue would contribute to the quality of service delivery in this fast moving programme and also, contribute to diminishing the social and psychological consequences of unwanted birth (Jalal Abbasi-Shavazi *et al.*, 2004; Childbirth by Choice Trust, 1999a, b; Malekafzali, 1996; Montgomery and Lloyd, 1997; Lloyd and Montgomery, 1996). The present study uses a large dataset from the 2007 Bangladesh Demographic and Health Survey (BDHS) to explore the levels and correlates of unwanted pregnancies. Unfortunately, the BDHS (2007) did not include sufficient questions in order to measure unmet need. Thus, the focus of the present study concerns only unintended pregnancy.

**Objectives of the study:** In present study based on following objectives:

- The determinants levels and correlates of unintended pregnancies
- To identify the factors affecting fertility as they operate through unintended pregnancies
- To investigate the factors affecting fertility to practice of contraception

**MATERIALS AND METHODS**

The data for the present study have been derived from the Bangladesh Demographic and Health Survey (BDHS, 2007).

In this study, the researcher use the definition provided by Jain (1999), who defined unintended pregnancies as the sum of both unwanted and mistimed pregnancies. There are 2 ways of estimating levels of unwanted fertility from the BDHS data. One is based on women’s response to a question as to whether each birth in the 5 years preceding the survey was planned (wanted then), mistimed (wanted but at a later time), or unwanted (wanted no more children). Another way of measuring unwanted fertility uses data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size. This dichotomous variable is used in the analysis of the levels and correlates of unintended pregnancies. The women’s age, parity, education and working status were used as the independent variables in multivariate analysis of the determinants of unintended pregnancies. Logistic regression analysis was used to estimate the net effects of each of the conceptually important variables on the likelihood of a pregnancy being unintended.

**RESULTS AND DISCUSSION**

**Rate of unintended pregnancy:** Table 1 shows the intentions of women about their current pregnancy. Combining through the two categories labeled as unwanted and mistimed, about 32% of women reported that their current pregnancies were unintended. As far as the place of residence is concerned, the level of unintended was slightly higher among urban women as compared to rural women (32.80% versus 31.00%).

**Correlates of unintended pregnancy:** Table 2 reveals that the rate of unintended pregnancy by demographic and

Table 1: Percentage distribution of currently pregnant women by their intention of the current pregnancy, BDHS (2007)

Injection	Region		Total
	Urban	Rural	
Wanted	67.20	69.00	68.40
Mistimed	17.90	15.10	16.10
Unwanted	14.90	15.90	15.50
Total	100.0	100.0	100.0
N	1748	3177	4925
Rate of unintended pregnancy*	32.80	31.00	31.60

\*Unintended pregnancies defined as the sum of both unwanted and mistimed pregnancies

Table 2: Rate of unintended pregnancy by socio-demographic variables, BDHS (2007)

Variables	Percentage of pregnant women whose pregnancy was unintended
<b>Age</b>	
<20	25.00
20-24	25.90
25-29	32.30
30-34	35.40
35-39	48.90
40-44	53.20
45-49	68.20
<b>Birth order</b>	
1	27.30
2	47.10
3	38.10
4+	60.00
<b>Sex of head of household</b>	
Male	31.40
Female	33.60
<b>Economic activity</b>	
Working	33.90
Not working	30.90
<b>Education attainment</b>	
No education	35.80
Incomplete primary	35.40
Complete primary	29.30
Incomplete secondary	27.60
Complete secondary	28.80
Higher	27.80
<b>Place of residence</b>	
Urban	32.80
Rural	31.00

Computed from BDHS (2007)

socio-economic characteristics of women. The older women reported a much higher level of unintended pregnancy. Similarly, women with higher birth order reported a higher rate of unintended pregnancies. In this study, the researcher is focusing on preference for either a boy or a girl child as a correlate of unintended birth. The study shows that women with a particular gender preference for the current pregnancy have a significantly higher rate of unintended pregnancies.

Among the three socio-economic variables considered, economic activity of women did show slight differentiation with respect to unintended pregnancy. However, education showed a consistently inverse relationship in this regard. For example, about 36% of no education women reported unintended pregnancy as

Table 3: Logistic regression analysis predicting probability of experiencing unintended pregnancy, BDHS (2007)

Variables	B	SE	Odds ratios
<b>Age</b>			
<20	RC	RC	RC
20-24	0.031	0.102	1.032
25-29	0.337	0.106	1.400***
30-34	0.471	0.118	1.602***
35-39	1.007	0.136	2.738***
40-44	1.195	0.194	3.303***
45-49	1.790	0.468	5.990***
<b>Sex of head of household</b>			
Male	RC	RC	RC
Female	0.090	0.105	1.094
<b>Economic activity</b>			
Working	RC	RC	RC
Not working	0.082	0.072	1.085
<b>Education attainment</b>			
No education	RC	RC	RC
Incomplete primary	0.156	0.091	1.169*
Complete primary	-0.055	0.121	0.947
Incomplete secondary	-0.092	0.091	0.912
Complete secondary	-0.085	0.138	0.919
Higher	-0.309	0.131	0.734***
<b>Place of residence</b>			
Urban	RC	RC	RC
Rural	-0.125	0.067	0.883**
Constant	-1.00	0.121	0.368

RC: Reference Category; Significant at 5% level; \*\*Significant at 1% level; \*\*\*Significant at 0.1% level

compared with about 28% of women with higher education. As mentioned earlier, urban women had a slightly higher level of unintended pregnancies according to the bivariate analysis.

**Multivariate analysis:** Logistic regression analysis was used to examine the odds ratios of reporting unintended pregnancy among women, who were pregnant at the time of the survey, on the set of demographic and social variables, which seemed conceptually important as correlates of unintended pregnancy. The results of this analysis are shown in Table 3. The multivariate analysis supported some of the findings of the bivariate analysis and indicated a different pattern of effect for a few other variables. Since, age and birth order were highly correlated, the birth order was not included in the bivariate analysis. The all age of women were significant except in age group 20-24 years. Again, all age groups of women were more likely to report unintended pregnancy as compared with women young age below 20 years.

According to Sex of head of household, female were more likely to report unintended pregnancy as compared with male. With respect to the three socio-economic background variables, economic activity did not show any impact on the probability of reporting unintended pregnancy. By contrast, the impact of education remained strong when other variables were controlled. No education women were used as the comparison group in the regression analysis.

Table 4: Distribution of women with current unintended pregnancy by currently using family planning methods to the pregnancy BDHS (2007)

Variables	Urban	Rural	Total
<b>Ever use of any methods</b>			
Yes	84.50	76.40	79.50
No	15.50	23.60	20.50
<b>Currently use</b>			
Pill	46.90	50.60	49.10
IUD	1.40	1.80	1.70
Injections	9.80	13.60	12.00
Condom	15.20	5.50	9.60
Female sterilization	8.50	10.00	9.40
Male sterilization	1.00	1.40	1.20
Periodic abstinence	9.40	9.00	9.20
Withdrawal	5.80	5.30	5.50
Other	0.50	1.20	0.90
Norplant	1.40	1.50	1.50
Number	2330.00	3298.00	5628.00

Computed from BDHS (2007)

Hence, compared to no education women, better educated women were less likely to report unintended pregnancy. The unexpected result from the logistic regression relates to rural-urban residence as a determinant of unintended pregnancy. In the bivariate analysis, urban women had a higher rate of unintended pregnancy. Yet, when demographic variables and education were controlled, rural women were less likely to report unintended pregnancy as compared with urban women.

**Contraceptive use and unintended pregnancies:** In the BDHS interview, women who reported currently being pregnant were asked if they currently used any family planning method delay to getting pregnant. If they reported using some type of method, they were asked about which method they used. The tabulation of results from these two questions is reported in Table 4. One important finding from this tabulation was that about one fifth of women reporting unintended pregnancy did not use any family planning delay to the unintended pregnancy. This provided a strong indication of unmet need for family planning among women in the Bangladesh. The second finding was that among urban women who reported using family planning delay to unintended pregnancy, about 47% used pill. For the same category of women in rural areas, the pill was the most frequently used method. From these results, it became clear that in urban areas dependency on pill as a method of contraception resulted in a high percentage of unintended pregnancies. In addition, in rural areas, many women reported using the pill yet becoming pregnant. The latter finding suggests the low quality of use of the pill among rural women.

## CONCLUSION AND RECOMMENDATIONS

Unintended pregnancies are one of the vital indicators of and it also influences fertility. The analysis of data from a large nationally representative sample of women showed that a significant proportion of pregnancies were unintended. More than half (68.40%) of these unintended pregnancies were reported as unwanted. In urban areas dependency on pill as a method of contraception resulted in a high percentage of unintended pregnancies. This study provides empirical evidence that the institution of unintended pregnancies in Bangladesh is costly for women in several dimensions. As a result of high rates of unintended pregnancies in rural Bangladesh attain significantly less schooling, experience more frequent reproductive health complications have higher fertility. Meanwhile, these findings, it is obvious that the impact of the Bangladeshi family planning programme would be much more significant if strategies to reduce the rate of unintended pregnancies were designed. By running and interpreting the logistic regression analysis, study shows that age, sex, economic activity, education and residence is the major factor/contributors of fertility. This indicates that various socio-demographic factors have played a crucial role in directly and indirectly influencing unintended pregnancies in fertility of Bangladesh. The fact that unintended pregnancies appears to be causally related to female outcomes in adulthood indicates that the current policy focus on enforcing or instituting age of consent laws is justified in many contexts and legal bans on pregnancy below this threshold may be comparable in effectiveness and more feasible policy measures in settings in which unintended pregnancies is costly to prevent. Thus, the programme should emphasize the importance of male involvement in family planning, particularly in areas with entrenched patriarchal culture. Marriage counseling as well as family planning programmes should educate women about emergency contraceptives. The improvement of quality of services is likely to decrease the level of unintended pregnancies in

the future. Particular attention to increasing the quality of delivery of contraceptives and knowledge would add to the exceptional success. However, there is a real need for more in depth studies on this regard. Thus, necessary action is called for to reduce future level of mortality in the country in order to achieve better living conditions in future.

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