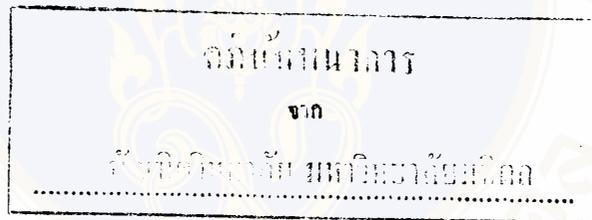




**WOMEN'S SOCIAL PARTICIPATION AND  
CONTRACEPTIVE USE IN BANGLADESH**

**MD. LUTFUR RAHMAN**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF ARTS  
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IN BANGLADESH**

*Md. Lutfur Rahman*

Md. Lutfur Rahman  
Candidate

*Yothin*

Asst. Prof. Yothin Sawangdee, Ph.D.  
Major Advisor

*Chai Podhisita*

Assoc. Prof. Chai Podhisita, Ph.D.  
Co-Advisor

*Liangchai Limlomwongse*

Prof. Liangchai Limlomwongse, Ph.D.  
Dean  
Faculty of Graduate Studies

*Chai Podhisita*

Assoc. Prof. Chai Podhisita, Ph.D.  
Chairman  
Master of Arts Program in Population  
and Reproductive Health Research  
Institute for Population and Social Research

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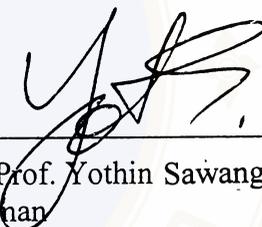
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for the degree of Master of Arts (Population and Reproductive Health Research)

on  
August 25, 2000



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Md. Lutfur Rahman  
Candidate



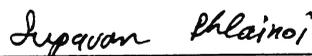
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Asst. Prof. Yothin Sawangdee, Ph.D.  
Chairman



---

Assoc. Prof. Chai Podhisita, Ph.D.  
Member



---

Assoc. Prof. Supavan Phlainoi Ed.D.  
Member



---

Prof. Liangchai Limlomwongse, Ph.D.  
Dean  
Faculty of Graduate Studies  
Mahidol University



---

Assoc. Prof. Bencha Yoddumnern-Attig, Ph.D.  
Director  
Institute for Population and Social Research  
Mahidol University

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***Md. Lutfur Rahman***

4238540 PRRH/M: MAJOR: POPULATION AND REPRODUCTIVE HEALTH RESEARCH; M.A. POPULATION AND REPRODUCTIVE HEALTH RESEARCH

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This study has made an attempt to investigate the relationship between women's social participation and contraceptive use in Bangladesh. The data for this study was obtained from Bangladesh Demographic and Health Survey, 1996-97 conducted by National Institute for Population Research and Training. A sample of 8,306 currently married women of reproductive age 15-49 living with their husbands were chosen for this study.

Univariate analysis with frequency distribution was used to examine the background characteristics. Logistic regression model was employed for examining the effect of each independent variable as well as control variable on dependent variable. Multivariate analysis showed that the effect of women's participation in the labor force and organized group memberships remains statistically significant and has great influence on their use of contraceptives, even after adding the control variables into the model.

In this study, it is concluded that women's labor force participation and organized Group membership seemed to empower women through strengthening economic roles and diffusion of knowledge and ideas associated with their contraceptive use. For enhancing the current rate of contraceptive use in the country, women's social participation and education must be taken into consideration through intervention and development programs by the government as well as non-governmental organizations.

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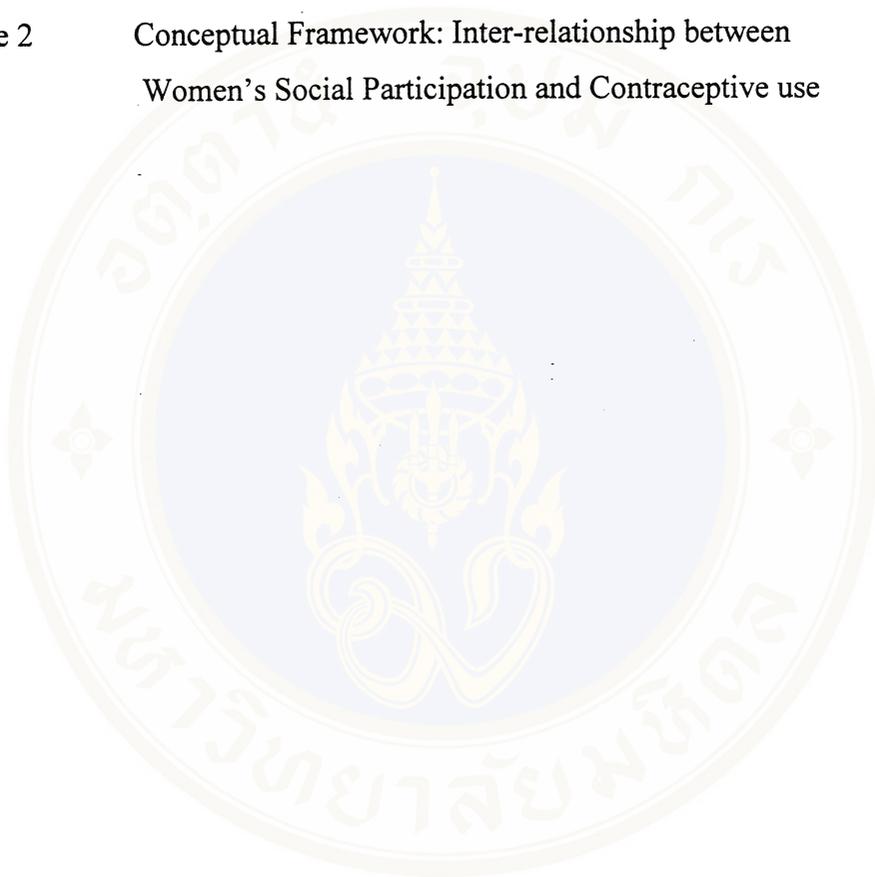
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## CHAPTER 1

### INTRODUCTION

#### 1.1 Country Background

Bangladesh is one of the developing countries in South Asia of 147,570 square kilometers with a population of over 120 million. It is almost entirely surrounded by India except for a short southeastern frontier with Myanmar and a southern coastline on the Bay of Bengal (Figure 1 shows the boundary of Bangladesh). For administrative purposes, the country has divided into six divisions, sixty-four districts, and 490 subdistricts. Muslims constitute almost 90 per cent of the population of Bangladesh, Hindus about 10 per cent, and others less than one per cent (BBS, 1997a).

Agriculture is the most important sector of the national economy which accounts for 30 per cent of the gross domestic product (GDP) and provides employment to 64 per cent of the labor force (BBS, 1997a). Currently, the importance of industrial sector is increasing as a result of foreign investments. The per capita income of the country is only US \$ 210 and half of Bangladesh's population entered with incomes below the poverty line (World Bank, 1995). A low level of literacy particularly female education and unemployment is a serious problem although female labor force participation has been increased during the 1990s. Unemployment problem and pressure on the land in rural areas has led to influx of people from rural to urban areas (BDHS, 1996-97).

Over the past three decades, the population of Bangladesh grew so fast and in great numbers, threatening all development efforts of the country. The concentration

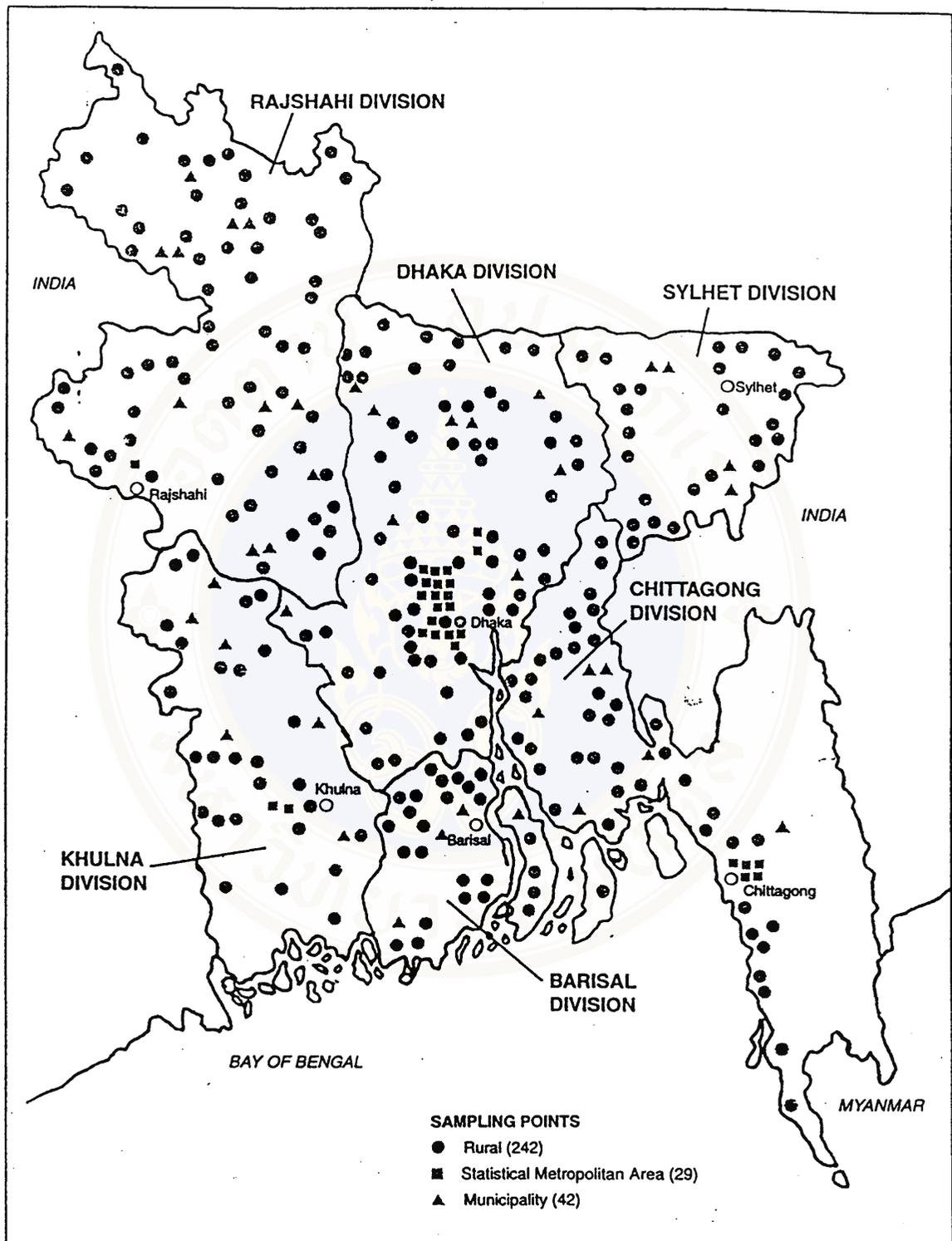


Figure 1: Map of Bangladesh

of people per unit of land has limited the breathing space of most people, particularly the fast growing population in urban areas.

The population of the area which now constitutes Bangladesh has grown from about 42 million in 1941 to about 120 million in 1995 making it the ninth most populous country in the world. The intersensal population growth rate peaked in the early 1970s at around 2.5 per cent per annum, followed by a decline to 2.2 per cent during the 1981-91 period (BBS, 1997a). The population is presently growing at the rate of 1.8 per cent per annum (Hossain, 1996). If this rate continues, it will be double in the next 40 years. The relatively young age structure of the population indicates continued and rapid population growth in the future. According to the 1991 census, 45 per cent of the population is below 15 years of age, 52 per cent are between 15 and 64 years and three per cent are age 65 or above (BBS, 1997a). This young age structure gives a high dependency ratio and constitutes a built in population momentum that will contribute to increase population in the future. The female population of reproductive ages (14-49) was 22 million in 1992 and it is expected to rise to 31 million in 2001. Even if replacement level of fertility is achieved by the year 2005 (as targeted by government policy) the population will continue to grow for the next 40 to 60 years (MOHFW, 1994).

To regulate the population size, the government has been trying to design and develop programs to meet the challenges. As modernization changes the socioeconomic infrastructure, the rates of fertility have also been changing in recent years in Bangladeshi society (Amin et al., 1993; Cleland et al., 1991). The fertility started to decline and Bangladesh have undergone a remarkable demographic transition over the last two decades. The population growth rate of Bangladesh is now

examined at 1.8 per cent compared with 3 per cent in 1970s. Only 7.7 per cent of eligible couples were practicing some form of contraception in 1975, but this has increased to 49.2 per cent in 1996-97 with corresponding decline of the total fertility rate (TFR) from 6.3 in the early 1970s to 3.3 in the period 1994-96 (BDHS, 1996-97).

Table-1 presents total fertility rates obtained from various sources. The table reflects an extremely steep decline in fertility. Fertility has declined from 6.3 births per women in 1975 to 3.3 births for the period 1996-97. Some authors argued that success of national family planning has mainly contributed to achieve the fertility decline in Bangladesh (Cleland et al., 1994).

**Table 1: Total fertility rates (TFR) from selected sources (1975-1996).**

Source	Year/ Period	Total fertility
Bangladesh Fertility Survey 1975	1975	6.3
*BDHS, 1993-94.	1993	3.4
*BDHS, 1996-97	1994-96	3.3

\*Bangladesh Demographic and Health Survey (BDHS)

Despite the success in fertility regulation and impressive gains in contraceptive use in the past, a low level of contraceptive prevalence rate is still noted in the country. According to BDHS (1996-97) the total fertility rate is still about 3.3

per women. In fact, sufficient and significant social change including women status was partly associated with the contraceptive use.

In rural Bangladesh, decisions about desired family size and contraceptive practice are still be part of the domain of broader family decisions mostly made by the men, particularly parents in law and male and female kin of the husband (Rahman et al., 1996). This is because, in Bangladeshi society, women are isolated and deprived. For example, very often education for girls is considered irrelevant. Social and economic dependence is the more common picture for majority of women in Bangladesh. Restriction of mobility interacts to isolate and subordinate women. This isolation constraint their potentials to generate income and take advantages of contraception services (Schuler et al., 1994). As a result, women who have relatively higher opportunity of enjoying improved status in the family are more likely to participate in the decision making process of family formation and reproductive health issues.

Despite this situation, efforts to further intensify the family planning program have been initiated in the country. Women's programs have begun to enhance the status of women. Presently, the government is considering new initiatives to enhance the accessibility and quality of services through expanding the range of reproductive health interventions.

## **1.2 The Problem Statement**

Bangladesh is one of the most densely populated country in the world. In the country, mortality rates are still very high at all ages, especially for infants and children. Fertility rates are among the highest in Asia. Despite increased urbanization and some socioeconomic development through governmental and non-governmental

efforts to reduce mortality and fertility rates have not fallen to the expected level (Balk, 1994). The Bangladesh Demographic and Health Survey (1996-97) reported that overall 49 per cent of currently married women are using a contraceptive method. The same report also indicated that total fertility rate of the country is 3.3. This low level of contraceptive use possesses a formidable challenge to reduce fertility at the replacement level. However, the country has still a high population growth rate and needs to reach replacement level as soon as possible. The national contraceptive prevalence rate should be raised to over 70 per cent to achieve replacement level of fertility (Khan et al., 1997). Phillips et al. (1988) mentioned that complex fabric of Bangladesh society is one of the reason for this slower rate of demographic change. Thus, one possible explanation that may be widely cited as an obstacle for demographic changes in Bangladesh is the low participation of women in social and productive activities.

It is quite certain that women's social participation influences contraceptive use in most all societies of developed as well as developing world (Rahman et al., 1996). It is generally seen that in societies or families where women have equal social participation compared to men, women can play important roles to achieve fertility goals. In Bangladesh women's social participation is very low. For example, Rahman et al. (1996) stated that in Bangladesh women have a subordinate position in both family and society, because of their seclusion from the labor market and social activities due to religious barriers.

Many researchers suggest that education and employment as key determinants of life style that could rise status of women in a society. However, the levels of educational attainment and employment opportunities are still low among the women

in Bangladesh. For example, Bangladesh Demographic and Health Survey (1996-97) reported that about 44 per cent of women age six years and above have not received any formal education and about 63 per cent of ever-married women are unemployed. Furthermore, the same data source has indicated that out of employment, almost half of women are manual laborers, with 41 per cent are in skilled labor, and 8 per cent are in unskilled labor. One observation that could explain this issue is women's mobility that is very much restricted in Bangladeshi society. For instance, Kabir et al. (1996) mentioned that traditional practice demands that women should maintain "purdah". It refers to the system of isolation of women from outsiders and the imposition of high standards of female modesty. It puts restriction on women's movement outside the home environment. This kind of restriction would exclude women from direct participation in social and productive activities. And some of these activities are their works.

Kabir et al. (1996) found that in Bangladesh, approximately one-fourth of the husbands did not allow their wives to go outside and more husbands in the rural areas did not allow their wives to go outside. That is to say, this restricted mobility of women has serious implications for the exposure of women to new ideas, beliefs and interest in planning their families. This low levels of women's social and labor force participation due to restriction of women's mobility out side of home are the main barrier that preventing women from participation in social and productive activities.

Based on the above observation, a question is raised whether women's social participation has any influences on the level of contraceptive use in Bangladesh or not? This study is designed to investigate the answer of the question.

### 1.3 Problem Justification

The Ministry of Health and Family Welfare of Bangladesh (1998) has set target for reduction of fertility rate to 2.2 per 1,000 live births and to increase contraceptive prevalence rate over 70 per cent by the year 2005. But the country has still a long way to go in fertility reduction and raise of the contraceptive prevalence rate to fulfill the target. Hence, strategies to bring down fertility and rise in contraceptive prevalence rate have to be readdressed and program to be formulated. The focus should be given to those areas that will rise the contraceptive use. Moreover, in order to design policies to increase contraceptive use, the government and policy makers requires an adequate information that cause low level of contraceptive use.

At the International Conference on Population and Development in Cairo in September 1994 and at two subsequent conferences in Copenhagen and Beijing address population concerns in the context of women's economic and social participation. The conference recommends enjoined governments to restructure their population policies, to simultaneously address family planning and improvements in the socioeconomic status of women through their social participation.

In a Bangladeshi society, where a conservative, patriarchal culture is still a formidable challenge to reduce fertility, women's organized group may be considered to be the better informal institutional mechanisms for strengthening demand for contraceptive use. In the country, the government, a growing number of non-governmental and voluntary organizations have focused their programs increasingly on women's organized groups and have attempted to draw them out of their home providing credit facilities (Schuler et al., 1994). These organizations conduct regular

weekly or fortnightly meeting and training programs for their members with the aim of helping them use economic resources properly. These meeting and training programs also function to strengthen group influences on individual to increase member's awareness of contraceptive use and address issues of female autonomy and employment (ibid.). Therefore, it is necessary to explore the influences of these women's organized group activities on contraceptive use.

Many studies have revealed the link between women's labor force participation and their contraceptive behavior in developing countries (Lloyed, 1991; Standing, 1983). But the labor force participation rate of women in Bangladesh is 18.1 per cent, compared with a rate of 77.0 per cent for men. In addition to this sharp difference in participation rates between men and women employment activity differs considerably. Most notables in this respect are the heavy concentration of women who are employed in informal sector activities. Most of the women (64 per cent) working in the informal sector are engaged in agriculture (Labor force Survey, 1995-96). It is therefore necessary to explore the relationship between this low level of women's labor force participation and contraceptive behavior in Bangladesh.

This research has made an attempt to illustrate the importance of women's organized group activities and labor force participation on contraceptive use as an effective approach in the national family planning program. Hence, if the relationship between women's social participation and contraceptive use are related and have significant effect, then the present strategies can be reviewed and planned in a manner which will be more effective to raise the contraceptives use. Thus the findings of this study can assist the government and policy makers in formulating effective policies

and strategies to achieve the targets that have been set to increase contraception use rate.

## **1.4 Research Question**

Does the women's social participation, defined in terms of participation in the labor force and in organized groups, have any influence on contraceptive use?

## **1.5 Research Objectives**

### **1.5.1 General Objective:**

The aim of the research is to investigate the association between women's social participation and contraceptive use in Bangladesh. The specific objectives are as follows:

### **1.5.2 Specific Objectives:**

1. To investigate the relationship between the labor force participation of women and contraceptive use.
2. To investigate the relationship between the women's organized group membership status and contraceptive use.

## **1.6 Definition of Key Words**

### **1.6.1 Women's Social Participation:**

Women's social participation may be defined as (1) participation of women in the labor force and (2) membership of organized group which occur out side of the household to earn self sufficiency and decision making power both within the family

and society. In their study Kabir et al. (1996) explained that the involvement of women in social and productive activities outside of home could give diffusion of ideas, greater exposure to different aspects of social life. Thus, it will increase the women's ability to exchange their views with their husbands regarding family formation. Furthermore, this issue could be link to the power of women. For example, organized group membership gives the women opportunity to receive credit as well as social development inputs and awareness raising training. The credit and training facilities are believed to be empowering women and make them self-sufficient though self-employment activities. Their contribution to family is believed to be strengthen their bargaining power within the family and are able to play more decisive roles in joint family decision-makings. In this way employment gained through women's organized group membership and labor force participation could strengthen demand for contraceptive and are able to make them more successful in contraceptive practices.

Women's labor force participation and membership of organized group is the measurement of women's social participation both within the household and in the society. Women's labor force participation and organized group membership could measure their material resources. At the same time, this indicator could measure the degree of their economic independence as well. That is to say, women's organized group activities and labor force participation enable the women to make decisions and to earn more control over the social and material resources within their households.

In this research women's social participation will be measured by the women's labor force participation such as their occupation during an interview. In addition, it will also measure by whether the women have participated in the

organized groups, or not. It can be widely believe that women's social participation may play an important role in accelerating contraceptive behavior within their peer groups by strengthening women's economic roles and enhancing women's empowerment.

### **1.6.2 Contraceptive Use:**

Contraceptive use in this research is defined as whether the women have ever used any form of contraception, traditional or modern, at the time of interview or not. Women's currently using any form of contraceptives, traditional or modern are shown in the Appendix.



## CHAPTER II

### LITERATURE REVIEW

#### 2.1 General Overview

The purpose of this study is to investigate the associations between the women's social participation and their contraceptive use. In the past, demographers were not much concerned about the women's social participation as a possible cause of contraceptive use. They mostly focused on women's labor force participation only. For instance, demographic transition theory has recognized that the women's labor force participation might empower women to limit their family size. Unfortunately, only few literatures have presented the influences of women's social participation on contraceptive use. But one observation that could be seen in the literature is that in developing countries, women's labor force participation and organized group membership has a causal relationship with the contraceptive use.

In order to develop the conceptual framework of this research, an attempt has been made to review some literatures and theory that would be related to the study. Literature review could help to understand the relationship and causal link between the social roles of women and their contraceptive practices. Results of literature review are presented below.

## 2.2 Socio-Demographic Factors and Contraceptive Use

### 2.2.1 Women's Education and Contraceptive use:

Although the relationship between women education and fertility is not clear (Cochrane, 1979) and the pathways through which education influences fertility have not been adequately identified, but many studies point out education as an universal significance predictor of contraceptive behavior at the individual level (Gage, 1995; Islam et al., 1997; Khan et al., 1997). By analyzing the World Fertility Survey data of 25 developing countries Rutenberg et al. (1991) confirm the previous findings that better educated women is more likely to practice contraception.

Higher levels of education has been identified as an important factor contributing to the rise in contraceptive use in Kenya (Njogu, 1991) and fertility declines in some parts of Africa (Caldwell et al., 1992). Similarly, Tsui et al. (1995) found women education at the secondary level had a significant positive relationship with the modern contraceptive use, compare to that of primary level in Bolivia, Botswana, and in Egypt. The study also found that the women with an incomplete primary education were less likely to use modern contraception compare to that of women with complete primary schooling in Egyptian. In another study in Sri Lanka, Ratherford et al. (1989) found that education has a larger effect on contraceptive use. The study showed that with those six or more years of education had markedly higher rates of contraceptive use than those five or fewer years of education.

Several studies have explored the inverse relationship between education level and fertility. For example, Oni et al. (1981) found a causal and significant relationship between the role of education and the practice of contraception. Similarly, the World Fertility Survey (1984) showed an inverse relationship between level of education and

contraceptive use. This survey found that the women using contraception were nearly five times higher for those who had completed seven or more years of education in compare to that of women with no schooling. Caldwell (1982) using Nigerian data found that the use of contraception rose steeply with education of women and a husband of white-collar occupation.

The possible explanation of this relationship between women's education and contraceptive use is that formal education is viewed as fundamental to individual modernity and to the psychological will to practice contraceptives (Gage, 1995; Van de Walle and Knodel, 1980). Education improves women's ability to resist subjugation and give greater power in decision making. Education also provides women a wider information and greater access to modern and effective contraceptive methods. The results weaken the social norm and values supporting a large number of children and promote contraceptive practices (Caldwell, 1980).

By contrast, in Kuwait, Shah et al. (1998) found that women educational level was not a significant determinant of her ideal family size or contraceptive practice. The study pointed out that contraceptive practices vary slightly among educated women, by years of schooling. This discrepancy is due to husband's influence on their wives, regarding to contraceptives behavior. Moreover, the husband's desired for children and attitudes toward contraception were more likely to have an impact on the wife's desire for contraceptive behavior. This indicates that women's contraceptive practice depends not only on her fertility preferences but also on her husband's fertility preferences. However, a study conducted by Karra et al. (1997) in South Indian families found relationship only between women education and contraceptive practice instead of male support to effect fertility decline.

### 2.2.2 Women's Age and Contraceptive Use:

Many studies documented that contraceptive use varies considerably by age of women. For instance in Thailand, Leoprapi and Thongthai (1989) found that contraceptive use takes an inverted U shaped with ages. The study noted that contraceptive use vary with age reaching the peaks in the 30s and declining thereafter. One of the interesting finding of the research was that increase in percentage of currently married women in the older age groups of reproductive span (40-44) practicing contraception. Generally, women of this age group tend to use less contraception, as they are less likely to be fecund and have intercourse less frequently. So it was inconsistent with other findings.

In a Malaysian study, it was found that the contraceptive use was relatively lower among the younger and older ages (Peng and Rahman, 1980). Similarly, in Kenya, Odhiambo (1997) found that women in their mid twenties and mid thirties were more likely to use contraception than the women in other age groups. Result of the third contraceptive prevalence survey (held in 1984) in Thailand also had the consistent findings (Chamrathirong et al., 1986).

All the studies reviewed above find a typical curvilinear relationship (contraceptive use increases with the increase of age, reaches maximum around 30s and then declines) between age and contraceptive use. There is also possible explanation of this type of existing relationship between age and contraceptive use. Generally, explanations of this relationship have stressed on three arguments. Firstly, contraceptive use is relatively higher among older cohorts due to cumulative use than younger cohorts. Secondly, because of adherence to traditional norms, older women aged 40-49 years may be less likely to use contraceptives. Finally, young women aged

15-24 years may be relatively poorly informed about the contraceptive methods. In addition, they may have more desire for additional children (United Nations, 1981).

In the case of Bangladesh, Demographic and Health survey (1996-97) revealed that contraceptive use rate vary with age of women and being lowest among younger and older ages. The survey explained that the dropout in current use among older women might be due to their declining fecundity as the women grow older, and lower levels of use among younger women might be due to an unwillingness for a certain number of children or for desired sex composition (BDHS, 1996-97).

### **2.2.3 Place of Residence and Contraceptive Use:**

Place of residence has significant relationship with contraceptive use. The Bangladesh Demographic and Health Survey (1996-97) indicated that the level of current contraceptive use was higher in urban area than in rural area (62 vs. 48 per cent among women). Many studies revealed the positive relationship between contraceptive use and place of residence (Abdullah, 1983; Yusuf et al., 1981). A possible explanation of this discrepancy is the opportunity of easy access of information, service availability and higher socioeconomic status prevailing in the urban area.

The evidence from many studies has supported the relationship between place of residence and contraceptive use. For example, a study in Nigeria by Oni et al. (1986) found that women lived in low socioeconomic area use fewer contraceptives than who did live in high socioeconomic area (2.1 per cent vs. 31.6 per cent). Similarly, in another study conducted by Malhotra and Thapa (1991) found difference between urban and rural women with regard to their contraceptive use. The results of

the study showed that contraceptive use was higher in urban area than rural counterpart.

Results of various surveys also provide plausible evidence that place of residence have relationship with contraceptive use. As for example, the 1986 Contraceptive Prevalence Survey of Thailand found higher contraceptive use among women in urban areas than in rural areas (Chamritithirong et al., 1986). Similarly, Survey of Fertility in Thailand (1977) had a consistent finding. The survey indicated that in urban areas married women had more contraceptive use compare to that of rural areas. The KAP survey in India also revealed higher current contraceptive use in urban areas than in rural areas (51 per cent vs. 31 per cent). The survey reported that during the period 1970-1980, the increase in current contraceptive use was higher among urban couples than rural couples (Khan and Prashad, 1985).

## **2.3 Women's Social Participation Factors and Contraceptive Use**

### **2.3.1 Women's Labor force Participation and Contraceptive use:**

There is considerable evidence that work participation of women is linked with their reproductive behavior like contraceptive use. For example, in a study conducted in Zaire, Shapiro and Tamashe (1994) highlighted the importance of women's labor force participation in contraceptive practices. This findings clearly suggests that after controlling for other factors, women who were employed had significantly higher probabilities of using any form of contraceptive methods than those who were not employee.

Several studies have argued that women who work outside the home and earn cash incomes have more control over reproductive decisions. For instance, Sather et

al. (1988) found that women who work outside of the home with cash payment were more likely to use contraceptive compare to those who did not work outside of home. Another example was that Population Research Reports (1985) showed the consistent relationship between this two phenomenon. The report also indicated that women who worked out side of home with cash payment were likely to use contraceptive compare to those who did not work out side of home. That is to say, women who work outside the home will receive more exposure to knowledge and ideas regarding family formation, which brings to higher levels of contraceptive use.

Some studies suggest that women's work is not all that affects their demographic behavior, but the issue includes whether a women derives any control or autonomy from the work (Gage, 1995). Similarly, Donahoe (1999) found that work provides alternative sources of identity and economic support that reduces women's social and economic dependence on men. In another study conducted by Dixon-Mueller (1989) stated that work can broaden women's social horizons, help them resist pronatalist pressures, and thus contribute to achieve greater reproductive autonomy which are associated with their higher contraceptive use. In spite of these arguments, demographers are still seeking a broad theoretical explanation of the relationship between women's labor force participation and their contraceptive behavior.

Empirical evidence supports that contraceptive use is significantly higher among the women who have participated in the income generating activities (Rahman et al., 1996; Islam et al., 1997). These studies mentioned that women who participate in the labor force need more contraceptives than others, to compensate for the effect

of lower breastfeeding of their children. That is to say, their roles of mothers and workers are conflicting.

By contrast, in Thailand, Luechai (1975) found that employment status has some effect on contraceptive use among the currently married women. However, his results did not find any difference within those working in the farming and non-farming sectors. Why are these results inconflct? According to Podhisita et al. (1990), in the early 1970s, a rapid and substantial decline in fertility was associated with active family planning program. At the same time a considerable socioeconomic change including an expansion of non-agricultural employment and increasing levels of education among members of younger cohorts have occurred. Thus, the increasing level of education among the young generation could be a possible explanation of this discrepancy.

### **2.3.2 Membership of Organized Group and Contraceptive Use:**

Many studies recognized the association of women's organized group membership with their practice of contraceptive behavior. For example, Boulay et al. (1999) found that female member of organized club were more likely to have ever used and to be currently using modern contraceptives than were non-members. The study found that several mechanisms might account for the association between organized club membership and contraceptive practice. The study explained that one mechanism might be helping the women to diffuse knowledge and ideas by facilitating the discussion among members of extended networks. Similarly, organized group membership may be the mechanism for the exchange of contraceptive information. Women may talk to one another about fertility and

contraceptive use. Through these informal discussions, women may learn about others experience and may also assess whether social norms favor the use of contraceptives (Rutenberg et. al., 1997).

Membership of organized group in credit programs may effect contraceptive behavior by providing credit and social development inputs in the community. For instance, credit and social development inputs may affect the contraceptive behavior by increasing the power associated with cash income and providing social power from the formation of qualitions (groups) of women. Schuler et al. (1994) using a sample of married women estimated the impact of women's organized group under credit program on contraceptive use. They found that members of the organized group were more likely than the non-members to have used contraception. Their findings also suggested that members of organized groups in credit program empowered women through strengthening their economic roles which effect the contraceptive practices.

In another study of Bangladesh, Amin et al. (1996) found that woman participating in a credit program through organized group memberships were significantly more likely than non-members to be current contraceptive users. But the limitation of the study was that authors did not control for individual level heterogeneity and explained that higher socioeconomic status and empowerment scores of credit program members might reflect partly the effect of participation and partly its attraction to those who were already empowered or who were of higher socioeconomic status.

Some studies have explored the linkage between organized group membership and women's fertility preferences under the non-governmental programs. For instance, Kabir et al. (1996) found that organized group members under the non-

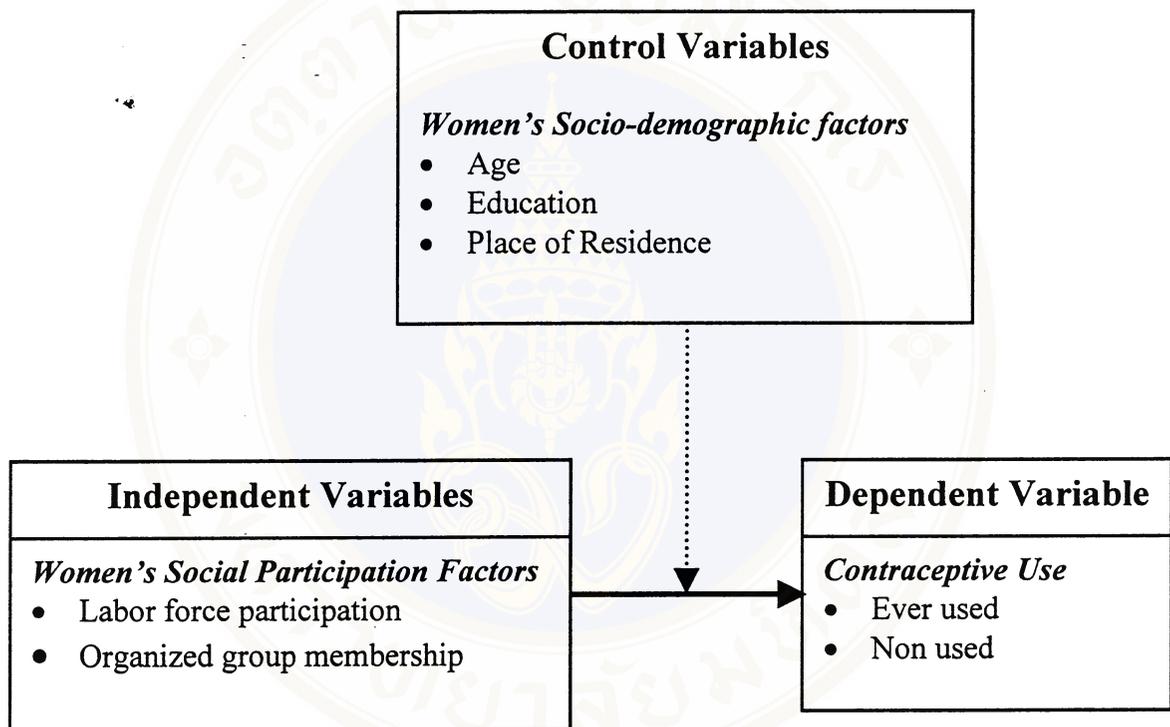
governmental programs have significant effects on desire number of additional children. This is because, participation of women in organized group under non-governmental program will give women more exposure to different aspects of social life. This involvement increases ability to exchange views and ideas with their counterparts as well as husbands regarding family formation. By contrast, Rahman et al. (1996) found that organized group members under the non-governmental programs were not likely to use contraception than non-members. However, the study found that the participation of a woman in organized group was positively and significantly associated with no more children.

## **2.4 Conceptual Framework**

This research aim to investigate the association between women's social participation and contraceptive use. The literature review presented above shows the possible factors of women's social participation that could effects on contraceptive use. These factors are grouped into two categories: socio-demographic (control variables) and social participation factors (independent variables). It is expected that all of these factors will have direct effects on contraceptive use or non-use.

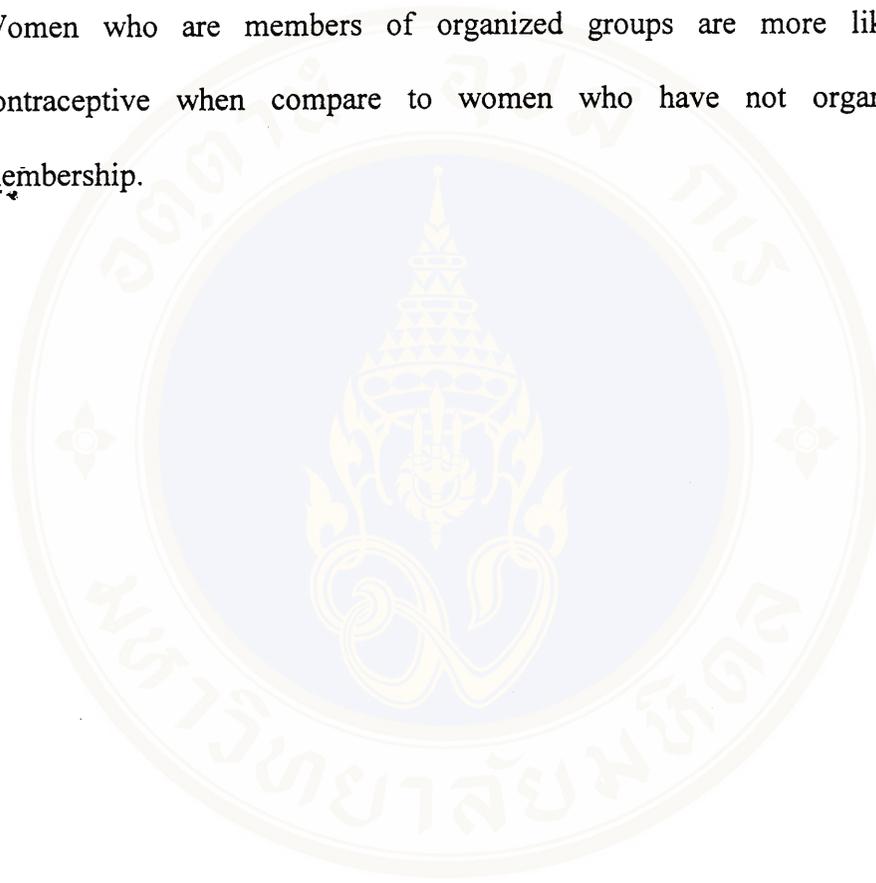
Only a small number of studies have looked at their social participation and contraceptive behavior in developing countries (Sather et al., 1988; Boulay et al., 1999; Kabir et al., 1996; Schuler et al., 1997). There are also examples that some studies did not find the evidence of significant relationship between contraceptive behavior and women's social participation (Luechai, 1975; Rahman et al., 1996). Hence, it is still debatable what the influences of women's social participation on contraceptive use are? In this context, in order to distinguish between the effects of

women's social participation itself and the effects of other variables that are believed to affect contraceptive use among the same women, three control variables are included. In fact, this research employed these three variables as control variables, because the study would highlight the effects of women's social participation on contraceptive use when these three factors would treat as equals. These are women's age, women's education and their place of residence. In the socio-demographic literature all of these three factors have significant effects on contraceptive use are well established. In this research, contraceptive use is the dependent variable, women's labor force participation, and organized group memberships are the independent variables. Conceptual framework that is presented in the figure shows the main ideal of linkage between independent variables and dependent variable.

**Figure 2: Conceptual Framework**

## 2.5 Research Hypothesis

1. Women who work outside of the household are more likely to use contraceptive when compare to women who work inside the home such as housewife.
2. Women who are members of organized groups are more likely to use contraceptive when compare to women who have not organized group membership.



## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Sources of Data**

The study uses the survey data from the Bangladesh Demographic and Health Survey (BDHS, 1996-97). This survey was conducted under the authority of the National Institute for Population Research and Training (NIPORT), Ministry of Health and Family Welfare, the Government of the Peoples Republic of Bangladesh.

#### **3.2 Sample Design**

Bangladesh is divided into six administrative divisions. The BDHS (1996-97) has employed a nationally- representative survey. The two-stage sampling was designed in this survey. The sample was selected from the Integrated Multi-Purpose Master Sample (IMPS) which were maintained by the Bangladesh Bureau of Statistics. Each division was stratified into three areas. In the rural areas, the primary sample units were the mauza, while in urban areas was the mohallas. A total of 316 primary sampling units were utilized for this survey.

### 3.3 Sample Size

The BDHS has covered a sample of 9,681 households. In the survey, there were 9,127 ever-married women of age group 10-49 years. However, a total of 8,306 currently married women of reproductive ages (15-49) who are living with their husbands are considered to assess the effects of women's social participation on contraceptive use.

### 3.4 Operational Definition of variables

To examine the effects of women's social participation on contraceptive use, the study has considered on six variables. These include one dependent, two independent, and three control variables.

#### **Dependent Variable:**

The dependent variable of this research is contraceptive use. This variable is defined as whether the respondent has ever used any form of contraception, such as traditional methods or modern methods or not during the interview takes place.

Contraceptive use is classified into two categories. They are:

- i. Contraceptive ever used
- ii. Contraceptive non-used

**Control Variables:**

This set of variables are consisted of the following indicators:

**Women Education:** Women education is defined as the level of formal education attained by the respondent. This variable has categorized into four groups. They are:

- i. No Education
- ii. Primary Education
- iii. Secondary Education
- iv. Higher Education

This variable has classified into four categories to define a gradient from no education to higher education, depending upon the level of education attained by the respondent. Education is included in the research as a proxy for socioeconomic status and as a measure of the level of awareness of the value of contraceptive use. According to the literature review, it is expected that higher level of education would be associated with higher levels of contraceptive use. No education is the reference category. Because it could explain about those women who have no exposure to different aspects of life, especially regarding to their contraceptive behavior.

**Place of Residence:** Place of residence is a simple rural- urban dichotomy in this research. Rural-urban classification is included in the study in order to control for the geographical placement of services, identification of exposure boundaries, and socioeconomic status.

- i. Rural
- ii. Urban

In accordance with the literature review, differential prevalence of contraceptive services, its information, and socioeconomic status of women across the rural-urban populations are existing. Moreover, women in urban areas have also more opportunities for education, formal employment, and procurement of contraceptives.

**Age of Women:** Age of women is defined as the actual age of the respondent at the time of interview measured in years .Age has categorized into seven cohorts:

- i. 15-19
- ii. 20-24
- iii. 25-29
- iv. 30-34
- v. 35-39
- vi. 40-44
- vii. 45-49

Age is categorized into seven classes to control for the curvilinear relationship between age and probabilities of contraceptive use. According to literature review, it is expected that contraceptive use would be relatively lower at younger and older ages. Younger women are thought to be less familiar with the process of contraceptive behavior and may desire for additional children. Older women might be less fecund or have less intercourse. Age group 30-34 will be employed as reference category. Usually for women this age group is found to be the highest contraceptive use. This group can be use to explain the relative use of contraceptive in different age groups.

**Independent Variables:**

**Women's Labor Force Participation:** Women's labor force participation is an ordinal variable designed to measure the women's current occupation or main work done by the respondent at the time of interview. This variable is grouped into four categories:

- i. Not working
- ii. Agricultural work
- iii. Semi-skilled and unskilled labor
- iv. Professional and business

A four-category division is derived by collapsing the nine categories in the BDHS to define a gradient from lower to higher status occupation. The first category includes not working women. The second category consists of agricultural workers including fishery. The third category combines semiskilled and unskilled manual workers; the third contains those engaged in domestic labors including maidservant. The fourth category combines professional and business workers to form a single category of higher status of employees. Not working group will be employed as reference category. This category could be used to compare the relative use of contraceptives among different categories of work done by the women at the time of interview.

**Membership of organized Group:** Women's organized group membership is defined as whether the respondent was a member of organized group or not at the time of interview. For this purpose, a dummy variable is created indicating whether the respondent is a member of mother's club, any social groups, such as Bangladesh

Rural Advancement Committee (BRAC), and Bangladesh Rural Development Program (BRDP). This variable is categorized as follows:

- i. Yes
- ii. No

### **3.5 Data Analyzing Method:**

In this research, SPSS program has employed to analyze the data. A frequency distribution is obtained to describe the nature of the sample. Logistic regression is used to examine the relationship between the independent variables and dependent variable in multivariate model.

## **CHAPTER IV**

### **RESULTS OF THE STUDY**

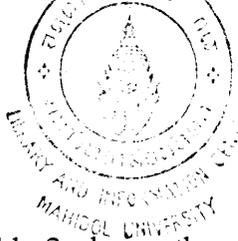
This chapter presents the results of the study. It consists of two sections. The first section describes the background characteristics of the women. These characteristics are women's age, educational level, place of residence, labor force participation, and membership of organized groups. The second section presents the results of multivariate analysis, based on the logistic regression. This part examines the effects of women's social participation on contraceptive use after adding control variables.

#### **4.1 Univariate Analysis**

The univariate analysis includes the frequency distribution of women's characteristics under this study. These are some socio-demographic and social participation characteristics of the respondents.

##### **4.1.1 Socio-demographic Characteristics of the Respondents:**

Table 2 describes the socio-demographic characteristics of respondents. The sample consists of 8,306 currently married women in reproductive ages (15-49) who are living with their husbands.



The first part of the Table-2 shows the percentage distribution of sample respondent's by five years age group. The Table shows that, at the time of the survey, more than half of women (57.5 per cent) are between age's 20-34 years. These ages are the most fertile time for women. The older age group 40-49 is relatively smaller compared to the younger cohorts and account for only 15.2 per cent. The mean age of the respondents is 29.08 years.



**Table 2: Percentage Distribution of the Sample Women, by Socio-Demographic Characteristics**

Characteristics	Number	Percentage
<b>Age of Respondents</b>		
15-19	1,223	14.7
20-24	1,644	19.8
25-29	1,828	22.0
30-34	1,307	15.7
35-39	1,046	12.6
40-44	745	9.0
45-49	513	6.2
Total	8,306	100.0
Mean (years)	29.08	
S. D.	8.74	
<b>Education of Respondents</b>		
No Education	4,366	52.6
Primary	2,311	27.8
Secondary	1,343	16.2
Higher	286	3.4
Total	8,306	100.0
<b>Place of Residence</b>		
Urban	1,311	15.8
Rural	6,995	84.2
Total	8,306	100.0

With regards to the educational level of respondents, from Table 2, it is seen that more than half of the respondents (52.6 per cent) has no education. Educations up to primary and secondary levels are 27.8 and 16.2 per cent respectably. And only 3.4 per cent of women have higher education. Looking at the place of residence, it is seen that there are 8,306 currently married women in the reproductive ages, of which 84.2 per cent are rural dwellers. Urban dwellers account for only 15.8 per cent of women.

#### **4.1.2 Social Participation of the Respondents:**

Table 3 presents respondents social participation. It is seen from Table 3 that a large number of women (70.0 per cent) report they are not working. The fact is that women who are working in the household are not classified as working. The highest percentage for non-working women may be due to their limited employment opportunity outside the home. The Table shows that about 16.5 per cent of women are working in the agricultural sector. However, only 16 per cent of women are working as semi-skilled and unskilled labor. The proportion of agricultural worker and semi-skilled and unskilled labor are almost similar (16.5 and 16.1 per cent). Women engaged in business and service sectors account for 2.4 per cent employment.

**Table 3: Percentage Distribution of Women's Social Participation Characteristics**

Characteristics	Number	Percentage
<b>Women labor force participation</b>		
Not working	5,391	64.9
Agricultural work	1,374	16.5
Semi-skilled and unskilled labor	1,339	16.1
Business and service	202	2.4
Total	8,306	100.0
<b>Organized group membership</b>		
No	6,473	77.9
Yes	1,830	22.0
Total	8,303	100.0

Table 3 shows that about 1,830 women (22.0 per cent) are members of organized group. Besides, there are 6,473 women (78.0 per cent) who are not belonging to any organized group as members. This figure indicates that the majority of women are not the members of social organized group.

## 4.2 Multivariate Analysis: Logistic Regression

The purpose for using multivariate analysis is to identify the important contribution of independent variables on dependent variable, after adding control variables (Socio-demographic variables) into the model. To examine the influence of women's social participation on contraceptive use, employing logistic regression is the most appropriate method. Logistic regression allows researcher to look at the direction of relationship and the magnitude of the influence of each independent variable towards the dependent variable. The assumption behind using logistic regression analysis is to adjust the probability for any outcome computed for all combinations of specific values of independent variables. Probabilities will give a more intuitive meaning by making the change in probability of each category of the dependent variable, with respect to a change in each independent variable. In other words, the probabilities can be thought of as expected or predicted proportions in each category of the dependent variable according to one independent variable, while controlling for the other remaining independent variables. In this analysis, logistic equation with two different models has been carried out. The first model i.e. model  $M_1$  shows the relationship between independent variables and dependent variable. The second model i.e. model  $M_2$  includes all the independent variables as well as control variables.

Information in the Table 4 describes about variables name and their definition. Similarly, information in the Table 5 describe the summary statistics, such as mean and standard deviation for every independent variable. These statistics are the fundamental statistics of the independent variables those will be employed in the multivariate models.

**Table 4: Description of Variables Used in the Analysis**

<b>Variables</b>	<b>Definition</b>
<b><u>Dependent variable</u></b>	
<b>Ever used FP method</b>	Dummy variable = 1 if the women ever used family planning methods; 0 = not used family planning methods.
<b><u>Control variables</u></b>	
<b>Age</b>	
15-19	Dummy variable =1 if the women report her age between 15-19; 0 = otherwise
20-24	Dummy variable 1 if the women report her age between 20- 24; 0= otherwise
25-29	Dummy variable=1 if the women report her age between 25- 29; 0 = otherwise
30-34	Dummy variable=1 if the women report her age between 30-34; 0 = otherwise
35-39	Dummy variable=1 if the women report her age between 35-39; 0 = otherwise
40-44	Dummy variable=1 if the women report her age between 40-44; 0 = otherwise
45-49	Dummy variable=1 if the women report her age between 45-49; 0 = otherwise

**Table 4: Description of Variables Use in the Analysis (continued)**

<b>Variables</b>	<b>Definition</b>
<b>Level of education</b>	
No education	Dummy variable = 1 if the women has no education; 0 = otherwise
Primary education	Dummy variable = 1 if for the women complete primary level of education; 0 = otherwise
Secondary education	Dummy variable = 1 if the women complete secondary level of education; 0 = otherwise
Higher education	Dummy variable = 1 if the women complete college and more education; 0 = otherwise
<b>Place of residence</b>	
Rural	Dummy variable = 1 if the women report her living in the rural area; 0 = women living in urban area
<b><u>Independent variables</u></b>	
<b>Organized group</b>	
<b>Memberships of women</b>	Dummy variable=1 if the women are the members of organized groups; 0 = otherwise
<b>Women's labor force participation</b>	
Not working	Dummy variable = 1 if women are not employed or not working; 0 otherwise
Agricultural work	Dummy variable = 1 if the women employed in agricultural work; 0 = otherwise
Semiskilled and unskilled labor	Dummy variable = 1 if the women are employed as an semiskilled and unskilled labor; 0 = otherwise
Business and service	Dummy variable = 1 if the women are employed in business and services; 0 = otherwise

**Table 5: Descriptive Statistics for Variables Used in the Logistic Regression**

<b>Variable</b>	<b>Mean</b>	<b>S.D.</b>
<b>Ever used Method</b>	0.52	0.50
<b>Age</b>		
15-19	0.15	0.35
20-24	0.20	0.39
25-29	0.22	0.41
30-34	0.16	0.36
35-39	0.13	0.33
40-44	0.08	0.28
45-49	0.06	0.24
<b>Level of Education</b>		
No education	0.53	0.50
Primary education	0.28	0.45
Secondary education	0.16	0.37
Higher education	0.03	0.18
<b>Place of residence</b>		
Urban	0.16	0.16
Rural	0.84	0.36
<b>Women's organized group membership</b>	0.22	0.41
<b>Women's labor force participation</b>		
Not working	0.65	0.48
Agricultural work	0.16	0.37
Semiskilled and unskilled labor	0.16	0.36
Business and service	0.02	0.15

#### **4.2.1 Results from the Logistic Regression Model:**

Table 6 (model  $M_1$ ) presents the effects of the independent variables on the dependent variable, without adding control variables (socio-demographic variables) into the study. The result of logistic regression shows that women's organized group membership and women's labor force participation are statistically significant with regard to contraceptive use. This could be explained that women who are the members of organized groups or are in the labor force are more likely to use contraceptives when compare to those who are not.

The odd ratio of model  $M_1$  shows that women who are members of organized groups are 1.5 times as likely as to use contraceptive when compared to those who are not members of organized groups. With regard to labor force participation, model  $M_1$  shows that women employed as semiskilled and unskilled labor are 1.22 times as likely as to use contraceptive compare to those who are not working. Similarly, women engaged in business and service occupation are 1.5 times as likely as to use contraceptive compare to those who are not working. With respect to their contraceptive behavior the women work as agricultural laborers do not differ from the women who are not working.

**Table 6: Odd Ratios for Significant Factors on Contraceptive Use (Model M<sub>1</sub>)**

Variable	B	S.E	Sig.	Exp (B)
<b>Women's Organized Group Membership<sup>1</sup></b>				
Organized group membership	.3842 ***	.0542	.0000	1.4684
<b>Women's Labor force Participation<sup>2</sup></b>				
Agricultural work	.0147	.0610	.8091	1.0149
Semi-skilled & unskilled labor	.1974**	.0618	.0014	1.2182
Business and service	.3971**	.1483	.0074	1.4874
Constant	-.0528	.0290	.0686	

N = 8,303

-2 Log Likelihood = 11425.451

Chi-Square Model = 73.449 \*\*\*

Degree of Freedom = 4

Note: Significant at \* P value <0.05, \*\*P value <0.01, \*\*\* P value <0.001

1= Reference category is not organized group memberships

2 = Reference category is the not working women

The results in the Table 7 (Model M<sub>2</sub>) presents the effects of women's social participation as well as control variables on contraceptive use. Model M<sub>2</sub> has demonstrated the same patterns of results as found in model M<sub>1</sub>. It is seen that model M<sub>2</sub> shows the significant relationship between the independent as well as the control variables with the dependent variable. This means that the effects of independent variables on contraceptive use remain significant after inclusion of the control variables in the model. This means that the more the women participate in organized group and work outside of home, the greater be the probability of their contraceptive use.

In Table 6 and Table 7 the value of the odd ratio of the variable "membership of organized group" are almost the same. However, among the different categories of women's labor force participation variable, the odd ratio has found to be changed after inclusion of control variables in model M<sub>2</sub>. Model M<sub>2</sub> shows that the effect of women employed in the business and service occupation on contraceptive use is reduced and no longer remains significant, but still continue to be important. The women employed in business and service occupation are more likely to use contraceptives compared with those of not working. This implies that substantial effect of business employment and services on contraceptive use are partly mediated through control variables (Socio-demographic variables). Women employed as semiskilled and unskilled labor are 1.27 times as likely as to use contraceptives than those not working, and the relationship is statistically significant. But the women employed as agricultural workers are not less likely to use contraceptives than the not working women.

Similarly, all control variables have significant relationship as compared to the reference category. Looking at the age, it is seen that all categories of age variables except age group 25-29 are significantly less likely to use contraceptives compared to the age group (30-34). This indicates that women below the age group 30-34 years of ages are less likely to practice contraceptives due to uncertainty about the number of children they want or for desired sex composition of children. And older women (above 30-34) may be less likely due to their declining fecundity or conservatives. From the table it is also seen that contraceptive use increases as the age of women increases, reaches its optimum at the age group 30-34, and then declines thereafter.

With regard to education, it is seen that educational attainment has the highest impact on women's contraceptives behavior, relative to the other variables included in the model. Women with a secondary level of education are significantly two times as likely as to use contraceptives than those with no education. It is observed that women who has primary level of education are more than one and half times as likely as to practice contraception than those who have no schooling. Similarly, women with higher education are 1.32 times as likely as to practice contraception than no education.

**Table 7: Odd Ratios for Significant Factors on Contraceptive Use (Model M<sub>2</sub>)**

Variables	B	S.E	Sig.	Exp (B)
<b>Age of women<sup>1</sup></b>				
15-19	- 1.0618 ***	.0850	.0000	.3458
20-24	- .4495 ***	.0779	.0000	.6379
25-29	- .1477	.0766	.0539	.8627
35-39	- .5708 ***	.0864	.0000	.5651
0-44	- .8783 ***	.0959	.0000	.4155
45-49	- 1.7312 ***	.1217	.0000	.1771
<b>Place of Residence<sup>2</sup></b>				
Urban	.3970 ***	.0674	.0000	1.4874
<b>Educational Level<sup>3</sup></b>				
Primary Education	.4896 ***	.0541	.0000	1.6317
Secondary Education	.8059 ***	.0686	.0000	2.2386
Higher Education	.2762 *	.1344	.0398	1.3182
<b>Women's organized group membership<sup>4</sup></b>				
Organized group membership	.3861 ***	.0567	.0000	1.471
<b>Women's labor force Participation<sup>5</sup></b>				
Agricultural work	.0840	.0644	.1918	1.087
Semiskilled and unskilled labor	.2366 ***	.0647	.0003	1.2670
Business and service	.1885	.1581	.2331	1.2075
Constant	.1305	.0672	.0520	

N = 8,303; - 2Log Likelihood = 10772.306

Chi- Square Model = 726.594 \*\*\*

Degree of Freedom =14

Note: Significant at \*P value <0.05, \*\*P value < 0.01, \*\*\*P value < 0.001.

1 = Reference category is 30-34 years;

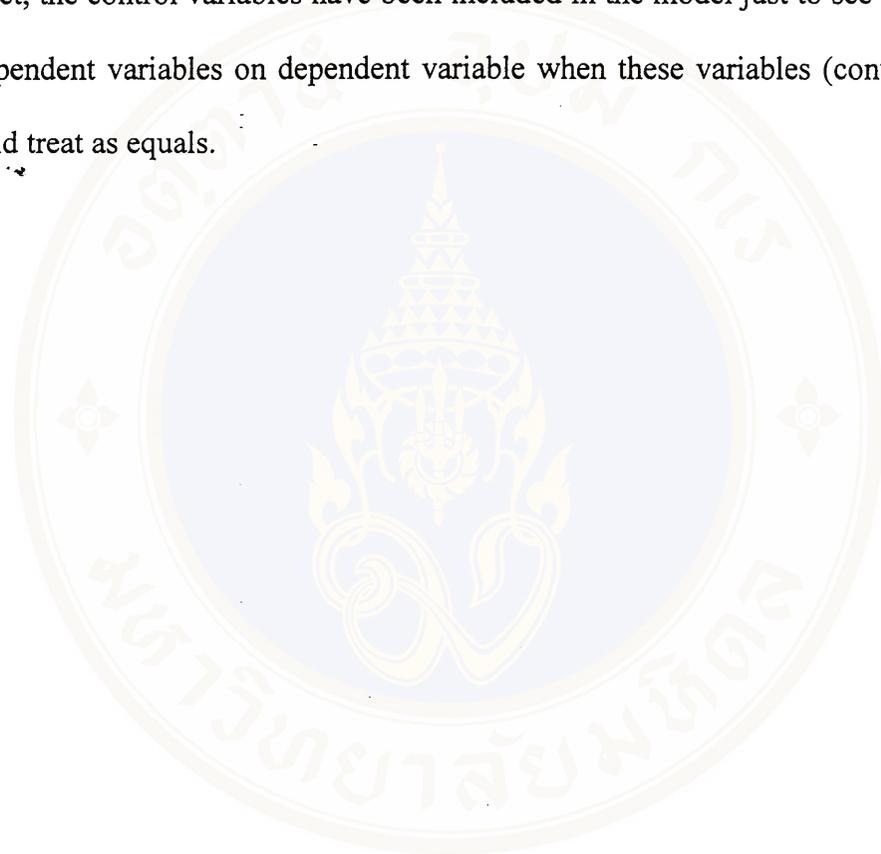
2 = Reference category is rural;

3 = Reference category is no education;

4 = Reference category is not organized group memberships;

5 = Reference category is not working women.

Place of residence are found to have higher contraceptive use at a statistically significant level. For example, women who belong to urban area are nearly one and half times as likely as to use contraceptives than those of rural area. However, to analyze the contraceptive use the control variables are beyond the scope of the study. In fact, the control variables have been included in the model just to see the effects of independent variables on dependent variable when these variables (control variable) would treat as equals.



## CHAPTER V

### DISCUSSION AND CONCLUSION

The main purpose of this chapter is to summarize and discuss the major findings of the study. In addition, this chapter will provide some recommendations for policy formulation and program implementation to increase the level of contraceptive practice. The roles of women's social participation in family planning in accordance with the findings from this study are shown to be important in increasing contraceptive use among women in Bangladesh.

This study has used the data from the Bangladesh Demographic and Health Survey, 1996-97. It is important to point out here that this survey was not designed to focus on the social participation of Bangladeshi women. Therefore, this study has been carried out only with very limited variables related to women's social participation. The sample included the currently married women of reproductive age's 15-49 years living with husbands. Altogether, 8,306 cases are selected for statistical analysis.

The ultimate objective of the study is to describe women's social participation and highlight its effects on contraceptive use. For the analysis, the study has selected a total of five variables, of which two are independent variables, and three control variables. The independent variables are related to the practice of contraceptive use. The control variables included in this study are selected socio-demographic characteristics of women. Frequency distribution has been used to describe the socio-demographic and social participation characteristics of women. To examine the effects

of women's social participation on contraceptive use, the logistic regression technique is employed.

## 5.1 Summary and Discussion of the Findings

This study has considered on socio-demographic and women's social participation variables. All of relevant description of socio-demographic and women's social participation characteristics of the sample has been explained in Tables 2 and 3. Higher majorities (84.2 per cent) of the women are from rural areas and only 15.8 per cent from urban areas. Bangladesh is predominantly an agricultural country. In the country, majorities of the total population are living in rural areas. More than 70 per cent (72.2 per cent) of the women are in the age group 15-34 years, where reproduction mostly takes place. In regard to educational level, half of the sample women (52.6 per cent) have no education, followed by 27.8 per cent educated up to primary levels, 16.2 per cent are secondary level, and only 3.4 per cent have higher level of education. With regard to labor force participation of women, out of total 8,306 women, 64.9 per cent are not working, followed by 16.5 per cent are working as an agricultural work, 16.1 per cent work as semi-skilled and unskilled labor, and only 2.4 per cent are engaged in the profession of business and services. Looking at the women's organized group memberships, out of 8,306 women, 1830 are (22.0 per cent) members of organized group, and 6,473 are (77.9 per cent) not the members of organized group.

Based on the findings from the background characteristics of the sampled women, it can be widely believed that these characteristics have a direct and an indirect effect on contraceptive use. For instance, level of educational attainment has

long been recognized as a crucial factor influencing women's contraceptive use. The accumulated evidence provides that compulsory education in many developing countries bring changes knowledge and attitudes towards the small family norm (Caldwell, 1982; Freedman, 1988). Evidence also supports that women's labor force participation has effect on their contraceptive use. Many studies have shown that women's labor force participation exerts its effect on contraceptive use through its impact on women's empowerment and diffusion of knowledge (Amin et al., 1996; Schuler and Hashemi, 1994). Similarly, women's organized group memberships and their participation in income generating activities give women more autonomy and a greater source of control over decisions to plan their families for the future (Desai and Jain, 1994; Schuler and Hashemi, 1994). Studies have also shown that urban dwellers are more likely to be better educated, better informed, and better exposed to modern life than the rural dwellers, and thus are more likely to practice contraceptives.

Multivariate analysis showed that woman's social participation variables including the control variables have statistically significant relationships and strong influence on contraceptives behavior. The results of the logistic regression have proved that after included the control variable (socio-demographic variables), the effects of women's labor force participation and organized group membership still remains significant. The results of the analysis also confirm the importance of women's labor force participation and organized group memberships for widening their contraceptive options. The evidence from this study supports the two-research hypothesis.

Participation of women in organized groups appears to empower women and has a significant effect on levels of contraceptive practice. Women's participation in

organized groups give greater emphasis in strengthening women's economic roles and more exposure to diffusion of knowledge and ideas may explain in part why organized group members are more likely than the non-members to use contraceptives. The organized group membership gives women socially legitimate reasons to move about and to associate with one another in public spaces. This association and meetings increase women's mobility and visibility. In addition, it lead them more exposure of new ideas which is helpful for them to become more confident and more skillful at interacting in the public sphere (Schuler and Hashemi, 1994).

The findings of the study highlight the evidence with regard to the relationship between women's labor force participation and contraceptive practice. The study revealed that employed women are more likely than unemployed women to use contraceptives. Employment by itself does not encourage the women to practice more contraceptives. But the degree of autonomy, diffusion of knowledge and ideas, and women experience on the job may partly explain a greater likelihood of autonomous behavior outside the workplace. Thus, labor force participation in jobs, that allow greater autonomy and more exposure to knowledge and ideas, are associated with a greater likelihood of contraceptive use than not working (Miles-Doan et al., 1998).

But over all the results highlights the importance of distinguishing between modern sector and informal sector employment in attempting to assess the relationship between labor force participation and contraceptive use. Because informal or agricultural sectors job provide workers little security, few benefits and cannot enhance women's autonomy or greater sense of control over their lives (Desai and Jain, 1994). Employment of women in agricultural sector gives them responsibility for domestic tasks and participation of income generating activities

become extra burdens for them. As a result women have a very little time available for seeking contraceptives services (Miles-Doan et al., 1998).

The findings of the study suggest that higher level of education is associated with a greater likelihood of contraceptive use. This may be because of educated women may have greater motivation to use contraception. Moreover, educated women may be less likely to have prolonged lactation and therefore need to adopt contraceptive methods earlier than the uneducated.

Findings of the study also revealed that contraceptive use initially increases with age, reaches maximum at the age group 30-34 and then subsequently declines which shows a parallel results reported by Shapiro (1994). Older women may have perception that they are not at risk of contraception and have lower use of contraception. There may be cohort effect also. The older cohort are generally more conservative in Bangladeshi society than the younger cohort and have lower contraceptive use relative to younger cohort. On the other hand, younger cohort may be less likely because of their less familiarity with the contraception.

This study indicates that place of residence is significantly related to contraceptive use. Women who lived in urban areas are significantly more likely to use contraceptives than the women who lived in rural areas. Women living in urban areas have greater exposure to modernizing forces like education, media, and a cash economy, which might encourage them to form small family size, because they acquire aspirations for goods other than children. The scarce housing and employment uncertainties also remind them to limit their family size as well as contraceptives use (Kent and Larson, 1982).

## 5.2 Conclusion

In Bangladesh, women's status is low. They are particularly unable to make independent decisions related to their fertility. Economically women are mostly dependent on men. Purdah system usually restricted their movement outside of home. Despite this situation, this study proves that women's social participation empowered women through diffusion of their knowledge and ideas increase contraceptive use. In the rural population, fertility remains high, knowledge of contraceptives is beginning to diffuse, and husband-wife discussions regarding family size are relatively low. At this early stage of fertility transition the factors that are strongly associated with movement towards a higher contraceptive use of women are very important.

Women's organized group memberships can be thought to strengthen women's decision making power and to make them independent. Thus, women's organized group membership is associated with contraceptive practice. The results of changing fertility norms in members have a diffusion effect on contraceptive use among non-members. The increasing number of contraception users in a community becomes easier for all women to adopt contraceptive use. If women observed that other are using contraceptive methods, their side effects and have being criticized is reduced and is more likely to know someone who can help them to get methods (Schuler and Hashemi, 1994). The findings of this study suggest that women's organized group can play an important role in accelerating a fertility transition by strengthening economic roles, diffusion of knowledge, and by advances women's status.

Women's labor force participation is by far the most significant force in the effort to increase contraceptive use. Women employed in the modern sector are more likely to practice contraception than the women working in the informal or

agricultural sector. Women earned control or autonomy from employment are positively related with their fertility behavior.

The results of the study suggest that in Bangladesh, women who have education, employed in the modern sector and have the organized group memberships are more likely to be in the forefront of the contraceptive revolution. These women are most actively involved in the fertility control and appear to be the pioneer of contraceptive use. Their higher level of contraceptive use and lower level of fertility may be the first signs of immerging fertility reduction in Bangladesh.

### **5.3 Policy Implication**

The major findings of the study highlight the importance of women's social participation to enhance the number of contraceptive users among the women. But some changes for women's social participation are somehow occurring in Bangladesh due to the governmental and Non-governmental development programs. Social changes need relatively time to have impact on human fertility. But intervention and development program can accelerate the process of social change and as well as fertility behavior. Hence, based on the results of the study, some recommendations to formulate effective policies to encourage women's social participation and to initiate programs for enhancing contraceptive use are suggested as follows:

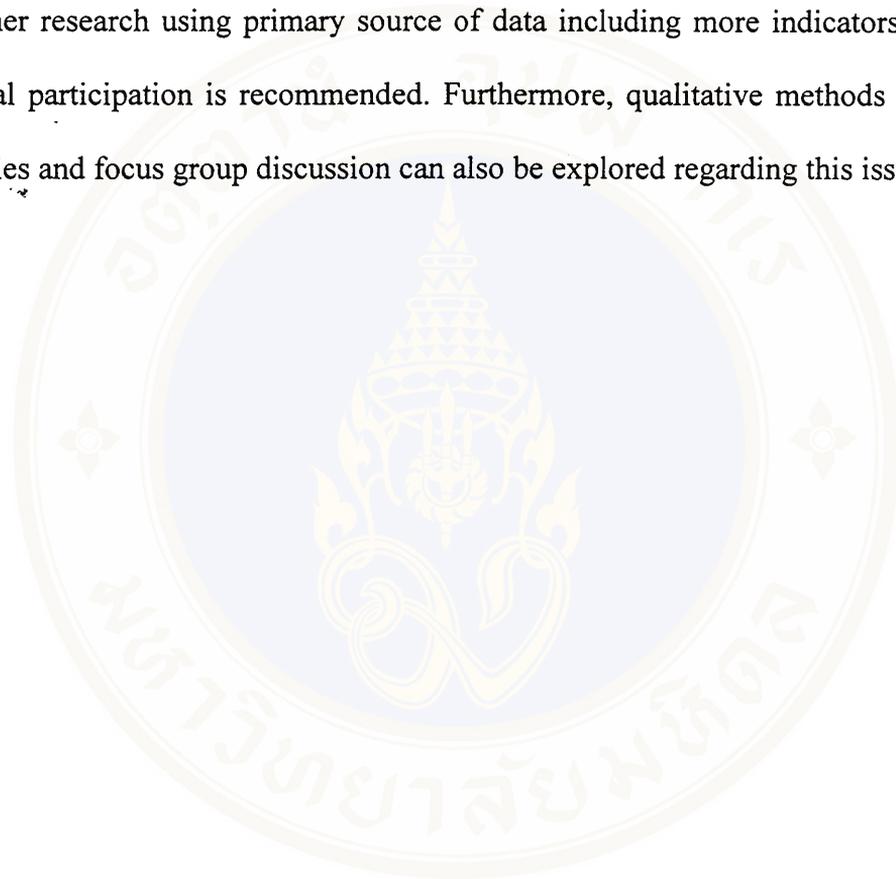
1. This study has revealed that participation of women in organized group activities are associated with their contraceptive practice. Therefore, program based on women to draw them out of their isolation, mainly by providing them with economic opportunities are believed to be contributing social change and to the empowerment of women. For this purpose, at the community level the

government and other concerned organizations especially Non-governmental organization can employ large number of field staffs to form women's organized groups and make them eligible to receive credit in order to make them self-reliant. Before receive credits it is prerequisite for every women to provide training with a strong focus on consciousness raising including small family size and contraceptives behavior. This training will intend to help women establish an independent identity out side of the home and create a sense of contraceptive use. For this purpose, a special program targeting all women of reproductive ages should be launched through out the country. Moreover, the government should offer more informations and incentives to encourage women regarding formation of organized groups.

2. The finding of statistical significance in formal sector employment is an indicator for government and policy makers to consider high status jobs for women in both rural and urban areas. Opportunities should be provided for women to work outside of home such as driving, blue-collar services, construction and factory works to help them find employment in the formal sectors.
3. To encourage women's social participation, an effective educational program that can changes rigid and traditional values, norms and attitudes of the men and women especially for the younger generation should be emphasized. In addition, the policy to enhance female education through provision of incentives should be expanded.

## 5.4 Further Research

This study is confined to indicators of women's social participation. A number of empirical indicators including economic and political participation of women can measure the influences of women's social participation on contraceptive use. Hence, further research using primary source of data including more indicators of women's social participation is recommended. Furthermore, qualitative methods such as case studies and focus group discussion can also be explored regarding this issue.



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**APPENDIX A**

**Table A: Odd Ratios for Significant Factors on Contraceptive Using with Adding Control Variables.**

Variables	B	S.E.	Sig.	Exp (B)
<b>Age of women</b> <sup>1</sup>				
15-19	-1.1813 ***	.0857	.0000	.3069
20-24	-.7750 ***	.0775	.0000	.4607
25-29	-.4109 ***	.0753	.0000	.6631
35- 39	.0168	.0873	.8473	1.0170
40-44	-.2994**	.0948	.0016	.7412
45-49	-1.0868 ***	.1115	.0000	.3373
<b>Place of Residence</b> <sup>2</sup>				
Urban	.4290 ***	.0665	.0000	1.5357
<b>Educational Level</b> <sup>3</sup>				
Primary	.3438 ***	.0541	.0000	1.4103
Secondary	.5760 ***	.0676	.0000	1.7789
Higher Education	.4229 **	.1360	.00191.	1.5264
<b>Organized Group Membership</b> <sup>4</sup>				
Organized group membership	.4856 ***	.0563	.0000	1.6252
<b>Labor Force Participation</b> <sup>5</sup>				
Agricultural work	.2922 ***	.0640	.0000	1.3393
Semiskilled and unskilled labor	.3458 ***	.0642	.0000	1.4132
Business and Service	.4479 **	.1618	.0056	1.5651
Constant	.0054	.0666	.9350	

**N = 8,303; - 2 Log Likelihood = 10841.990**

**Chi- Square Model = 668.146 \*\*\* ;Degree of Freedom =14**

**Note: Significant at \*P value <0.05, \*\*P value < 0.01, \*\*\*P value < 0.001.**

**1 = Reference category is 30-34 years;**

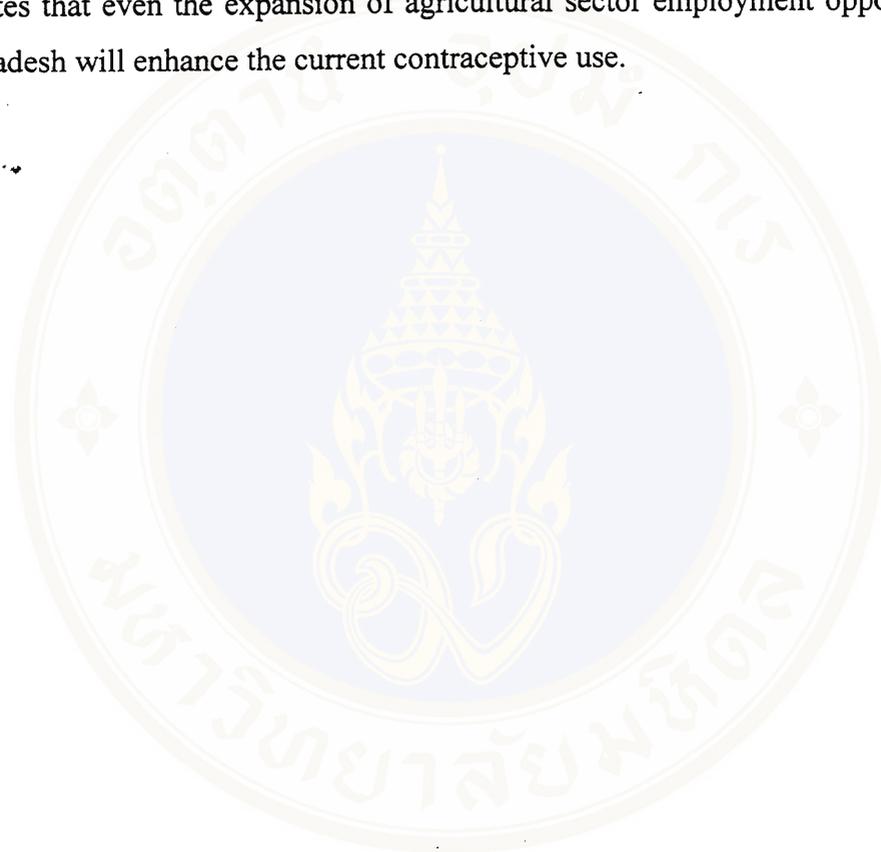
**2 = Reference category is rural**

**3 = Reference category is no education;**

**4 = Reference category is not organized group memberships;**

**5 = Reference category is not working women.**

The Table A in appendix shows that women's organized group memberships and labor force participation are highly statistically significant with regard to their contraceptive use after adding the control variables into the model. Results also show that all categories of labor force participation including the agricultural workers are statistically significant when compare to those of not working. This result clearly indicates that even the expansion of agricultural sector employment opportunities in Bangladesh will enhance the current contraceptive use.



## BIOGRAPHY



**NAME**

Md. Lutfur Rahman

**DATE OF BIRTH**

09 January 1963

**PLACE OF BIRTH**

Gazipur, Bangladesh

**INSTITUTION ATTENDED**

Jahangir Nagar University of Dhaka, 1985

Bachelor of Science with Hons. in  
Economics (B. Sc. Hons)

Jahangir Nagar University of Dhaka, 1986

Masters of Science in Economics (M. Sc.)

**RESEARCH GRANT**

World Health Organization (WHO)

**PRESENT POSITION**

Thana Family Planning Officer

Directorate of Family Planning

Ministry of Health and Family Welfare

Government of the Peoples Republic Of Bangladesh.