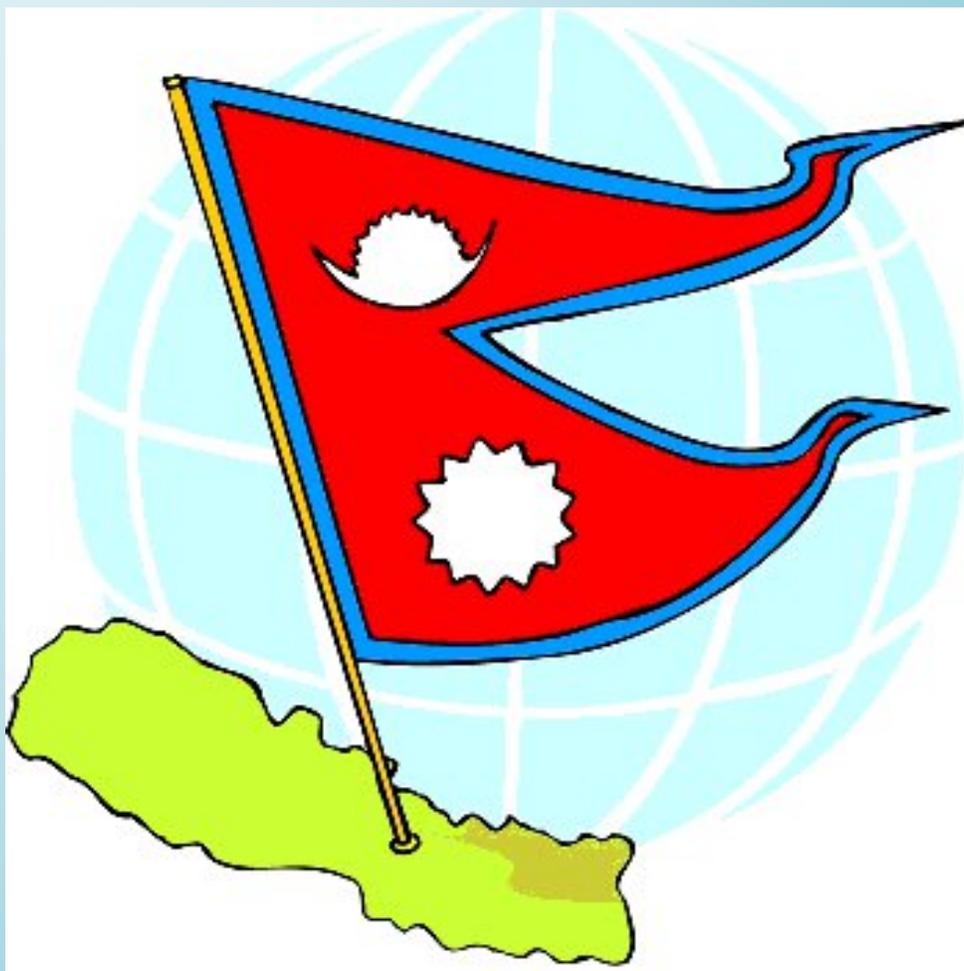


**Do Government Family Planning Programs, Women's
Demographic, and Socio-economic Status Influence Current Use
of Modern Contraception among Married Women in Nepal**

(An analysis from Nepal Demographic Health Survey, 2006)



Supervisors
Prof. Dr. I. Hutter
&
Dr. H. Haisma

Lila Kumari K.C
Master Program in Population Studies
Master Thesis, 2010
Population Research Centre,
University of Groningen, Netherlands.

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TOPIC: DO GERNMENT FAMILY PLANNING PROGRAMS,
DEMOGRAPHIC, AND SOEIO-ECONOMIC STATUS
INFLUCE CURRENT USE OF MODERN CONTRACEPTION.

KEY WORDS: MODERN CONTRACEPTION/ GOVERNMENT FAMILY
PLANNING PROGRAMS/ MARRIED WOMEN/
CONTRACEPTIVE USE/ FAMILY PLANNING FIELD WORKER

K.C. LILA KUMARI 1939335/MSC POPULATION STUDIES

THESIS SUPERVISIORS: PROF. DR.INGE HUTTER AND DR. H.H.HAISMA

ABSTRACTS

In Nepal, using the modern contraception is in increasing trend among married women. The proportion of women who are using modern contraception increased by 25 percent over past five years; 35 percent in 2001 to 44 percent in 2006. 44 percent of currently married women age 15-49 are using a modern contraceptive method in Nepal. However it is still low compared to other countries in this region. The main objective of this research is to determine demographic, socioeconomic, attitude, and subjective norms related factors influencing, and the impact of government family planning programmes on the current use of modern contraceptive methods among married women in Nepal. This research based on the reasoned action theory of Ajzen and Fishbein 1980.

The data were derived from Nepal Demographic Health Survey 2006. The sample size includes 2600 currently married women age 15-49 (who are living together with their partner). Binary logistic regression was used for the analysis. Demographic (age, and number of living children), socioeconomic (type of place of residence, education, occupation and wealth status), attitudes (desire for more children, and ideal number of children), and subjective norms related (contraception is women's business, and sterilised women become promiscuous) variables were selected for examining the research question.

The analysis shows that number of living children, wealth status and visited by family planning field workers found to have strong positive effect on use of modern contraception. Women who were visited by family planning field worker were 3 times more likely to use of modern contraception compared those without visited. Result also reveals that use of modern contraception is increases as increases the age of women until 35-39 afterwards started decline. Additionally, women with primary, secondary, and higher education and working in service and manual sector were more likely to use modern contraception compared those with no education and no work. Furthermore exposures on TV, the desire for more children, and ideal number of children have a statistically significant effect on use of modern contraception. However type of place of residence, exposure to radio, contraception is women's business, and sterilised women become promiscuous have no significant effect on use of modern contraception.

This study suggests that the family planning activities through family planning field worker should be continue to promote use of modern contraception and also extend the family planning program from TV than from radio.

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Chapter 1

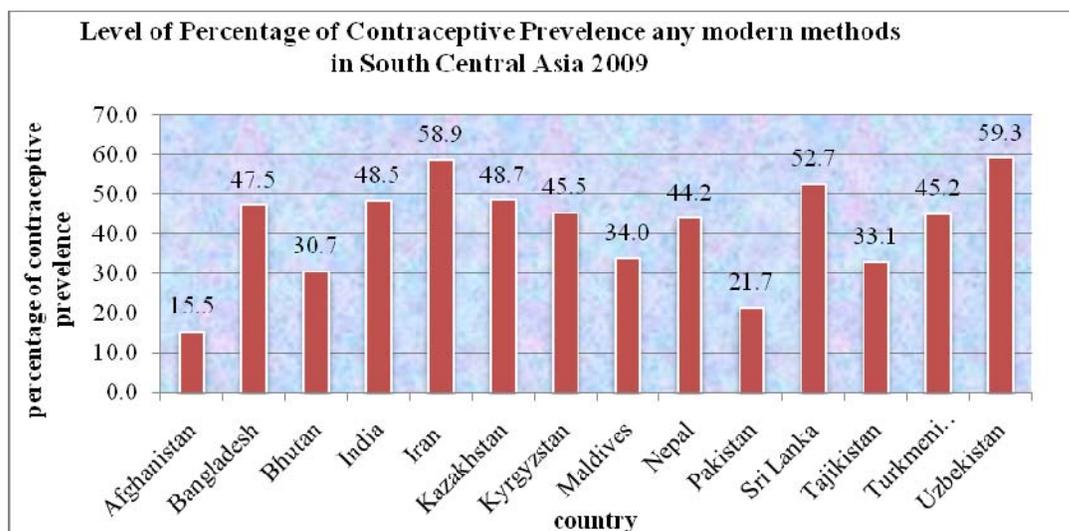
Introduction

1.1 Background

“Reproductive health is defined as a state of physical, mental and social well being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often do so. Men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth” (ICPD, 1994). Thus after international conference on population and development (1994) reproductive health came up with the broader concept and mainly focused on the personal needs and rights rather than the achieving targets. Family planning is one the main component of the reproductive health. According to Mosby’s (2002) contraceptive as “a process of technique for the prevention of pregnancy by means of a medication, device, or method that blocks or alters one of more of the process of reproduction in such a way that sexual union”. In this way we could define contraceptive as the way or method for avoiding or delaying pregnancy.

Globally the use of contraception is increasing. It was estimated that 63 percent of women of reproductive age 15-49 who were married or in union were using a contraceptive method to a total of 721 million worldwide in 2007. The level of contraceptive use is higher in developed countries (70%) and lower in developing countries (62%) and very low in the Sub Saran Africa (21%). In the Asian region the level of the use of contraceptive among women who were married or in union is somewhat less than the developed countries it is 67% but this high percent due to the eastern Asian countries since average use of contraceptive level is 84.8%. Nepal located in south central Asia. Average contraceptive prevalence rate is 54.2 % in south central Asia. In Nepal contraceptive prevalence rate is 48 percent using any method and 44.2% using any modern methods; it is low compare with the some other south central Asian countries. For example the contraceptive prevalence in Bangladesh and Sri Lanka has respectively 55.8% and 68% (United Nation Population Division, 2009). Figure 1.1 reveals the level of contraceptive prevalence rate using any modern methods.

Figure 1.1 Level of contraceptive prevalence any modern methods among women who are married or in union, south central Asia 2009



Source: UN department of economic and social affairs population division; 2009

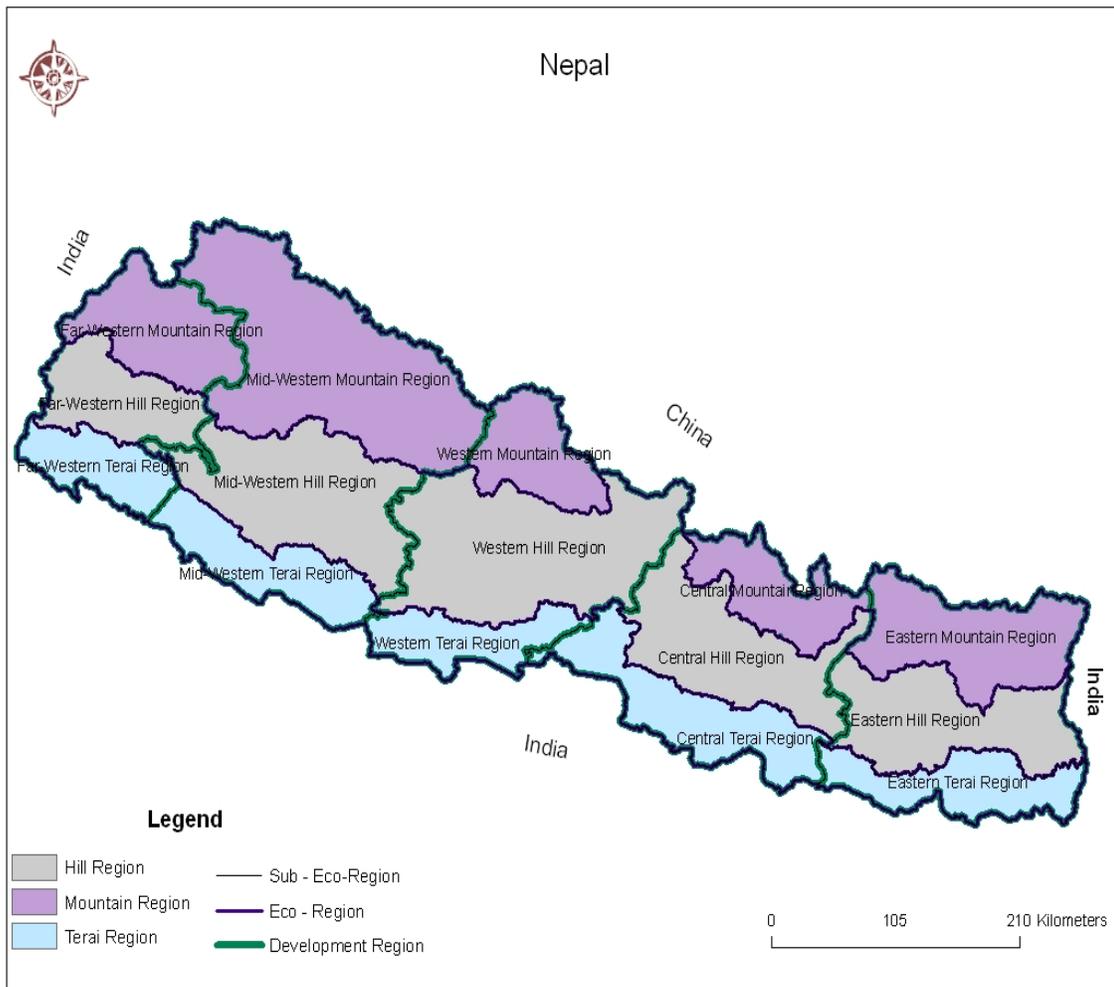
From above figure we can see the higher level of use of modern contraceptive in Uzbekistan, Iran, and Sri Lanka and very low in Afghanistan and Pakistan. In Nepal the level of use of any modern contraceptive methods among women somewhat low compare to higher users in the central Asia.

1.2 Background information of country

1.2.1 Geography

Nepal is a landlocked country which covers an area of 147,181 square kilometres. It has elevation ranging from 90 meters to 8,848 meters. Nepal has an extremely large variety of topography- ranging from lowland plains to the highest mountains in the world. The country is sandwiched between the two most populous countries of the world, India to the east, south and west and China to the north. For administrative purpose Nepal is divided into 75 districts which are grouped into five development region (Eastern, Central, western, Mid-western, and Far-western) and three ecological regions (Mountains, Hills and Terai). Within each district there are village development committees in rural and municipalities in urban areas. In total there are 3,915 village development committees in rural areas and 58 municipalities corresponding to about 36 thousands Wards (the lowest administrative units in the country). Some of the demographic data are available up to these smallest units like; total households, male, female, and total population (Nepal Demography Health Survey, 2006).

Figure 1.2 Administrative map of Nepal



Source: GIS section, CBS, 2010

1.2.2 Demographic

According to population census 2001, the total population of Nepal is 23,151,423. The annual growth rate of population is 2.25 percent between 1991 and 2001 and sex ratio of 99.8. Similarly, mean age at marriage for female 19.5 years for male 21.5 years (Central Bureau of Statistics, 2001, 2003a). Nepal has huge population of female in the reproductive age group which is 49.2 percent with 3.1 high fertility rate (NDHS, 2006). Similarly other demographic indicators are maternal mortality ratio is 281 deaths per 100,000 births, infant mortality rate is 48/1000 live births whereas the under five mortality rate is 61 per 1000 live births. The life expectancy at birth for female 63.7 and for male 62.9 now female are slowly increasing trend on the level of living longer than males like in most other countries.

1.2.3 Socio-economic

Nepal has diverse ethnic groups with different mother tongues. The 2001 population census identified 92 mother tongues and 103 ethnic groups. Nepali language is an official formal language and half of the population have Nepali language as mother tongues. According to Central Bureau of Statistics (2001) 82 percent of the total population have Hindu religion and rest of others have others different religions. Nepal has mainly agriculture based economy and 30.9 percent of the total population living under the poverty line. Nepal ranked 144 in the human development index with the 0.553 value (UNDP, 2009). In Nepal urban centre increased from 16 in 1971 to 58 in 2001 and 86.1 percent population living in rural area and 13.9 percent population are living in urban area which data indicate Nepal still has a low level of urbanization compared to many others Asian countries (Nepal Population Census, 2001). All these data indicates that socioeconomic status of Nepal is low and it is needed to improve for getting better position.

1.2.4 Family Planning Policies in Nepal

Nepal adopted the family planning policy as early as in 1960 with the objective of bringing equilibrium between population growth and economic development of the country. After that from fifth periodic development plan (1970-75) population policy was given more emphasis by adopting a policy for reducing the crude birth rate through family planning and child health program. The six plan regarding family planning focused on the expanding family planning services. In the seventh plan two main strategies were adopted; expansion of family planning services and the demand for services were addressed. According to the Annual report department of health services (2006-07) the national health policy was formulated in 1991. It is a comprehensive policy in health sector that addressed service delivery and administrative structure of the health system and regards family planning it is focused on expanding and sustaining adequate quality family planning services to communities through all health facilities and also aims to encourage involvement of NGOs, social marketing organizations, and private participators to supplement government effort. After the International Conference on Population and Development (ICPD) in 1994, Nepal adopted a policy of providing comprehensive reproductive health services by integrating and starting existing family planning, safe motherhood and other reproductive health related program. After than government adopted different policies, strategies and programs related to reproductive health and family planning. The section below discusses details of existing family planning policies, programs, programs and strategies.

➤ *Second Long Term Health Policy (SLTHP)*

The government of Nepal has developed a 20 years (1997-2017) second long term health plan to guide health sector development for overall improvement of the population particularly for those whose health care often is not met. With regard family planning, the target is to increase the contraceptive prevalence rate to 58.2 by the year 2017 (Annual Report, 2006-07).

➤ *Reproductive Health Strategy 1998*

Reproductive health strategy 1998 recognized the reproductive health as complete physical, mental and social well beings and not merely absence of diseases of infirmity (Annual report

2006-07). There after reproductive health has taken into broader concepts rather than only family planning methods. Regards to family planning, the reproductive health strategy 1998 focused on the family planning service delivery.

➤ ***The Three Year Interim Plan (2007/08-2009/10)***

In the three year interim plan long term vision is to establish appropriate conditions of quality health services delivery, accessible to all citizens, with a particular focus on the low-income citizens and contribution to the improvement in the health of all Nepalese citizens. In the interim constitution of Nepal 2007 also incorporated the globally recognized health as a fundamental right.

The main objective included in the three year interim plan is to ensure citizens' fundamental right to have improved health services through access to quality health services without any discrimination by region, class, gender, ethnicity, religion, political belief and social and economic status keeping in view the broader context of social inclusion. The main objectives are:

- To provide quality health service.
- To ensure easy access to health services to all citizens (geographical, cultural, economic and gender).
- To ensure enabling environment for utilizing available health services.

Regarding family planning the Three year Interim Plan set the target; contraceptive prevalence rate increased from 44.77 % to 53% and the following programs are adopted with regards to family planning (Three year Interim Plan, 2008).

- Family planning program will be run according to the concept of a managed family.
- The use of proportionately mixed methods will be emphasized as a long-term method in order to reduce the dependency on permanent vasectomy. This service will be made an integral part of the hospital service with special attention to quality service delivery.
- Participation of NGOs and private sector institutions will be ensured, by prescribing targets for them. In areas where family planning service is not yet available, adequate arrangements will be made to provide such services.
- Family planning will be promoted as an integral part of the motherhood program and safe abortion service.
- To increase the access of the poor, and the people of disadvantaged and depressed classes, *Madhesies*, indigenous and *Adiabsi Janajati* and Muslim women, to the emergency health and family planning services, Female Health Volunteers will be mobilized to coordinate with the community-based savings and cooperative program, for the resources such women may need.

➤ ***Family Planning Service Delivery***

Family Health Division (FHD) under the Department of Health Services is responsible for implementing policies, developing programs and coordinating family planning, safe motherhood, and demography related activities. Family Health Division aims at providing a full range of family planning services throughout the country based on informed choice. Annual report (2006-07) following strategy has been adopted to achieve the expansion of family planning services.

- Increasing knowledge and understanding of benefits of delayed marriage, birth spacing and a small family norm across the country through messages integrated into health Information, Education and Communication (IEC);
- Integrated family planning services within reproductive health and primary health care.
- Increasing accessibility of all family planning services through a combination of static and outreach services.
- Expanding regular year-round voluntary surgical contraception (VSC) and mobile

- outreach services.
- Expanding Norplant and IUD services to suitable delivery sites in districts, with special emphasis on counselling and follow up services.
 - Providing non-clinical methods (condoms, orals, and injectables) through static and primary health care (PHC) outreach services;
 - Training service providers in collaboration with National Health Training Centre (NHTC).
 - Improving quality of care in accordance with National Medical Standards, with special emphasis on counselling, infection prevention, and management of side effects and complications.
 - Establishing service to manage re-canalization in selected hospitals.
 - Establishing post-partum family planning services in institutions with a significant case load of deliveries.
 - Establishing management and treatment services for complications from spontaneous and induced abortion, including follow up family planning services.
 - Identifying stock requirements and ensuring adequate logistical support for family planning supplies.
 - Ensuring effective financial management of family planning programs and
 - Ensuring effective monitoring and supervision of family planning programs.
 - Finally, In Nepal the existing family planning policies are related with the border concept of reproductive health and services. It is integrated with the reproductive health services and population program and other health related activities. Furthermore the involvement of NGOs and INGOs also is increasing.

1.2 Embedding master thesis with family planning policies and interventions

My proposed research on 'do the government family planning program, and women's demographic, and socio-economic status influenced to current use of modern contraceptive among married women in Nepal'. The purposed research try to find out impact of government family planning program and factor influencing to currently use of modern contraception among married women. Its results could be relevant to the effective implementation of the existing family planning programs and interventions as well as also can be of help to policy maker to improve or develop programs and interventions but it is depending on the outcomes of the analysis. For example after analyzing this study could make a set of main influencing factors of use of contraception among married women in Nepal this will be strong information for the government and non government family planning program implementer. The stakeholders will be Ministry of Health and Population, and Family Health Division and all others family planning program implementer and researcher. Indeed my research could play small scale role as informing about impact of government family planning program and main factors influencing to currently use of modern contraception among married women to the policy makers, program interventionist and individuals who are interested to know such information.

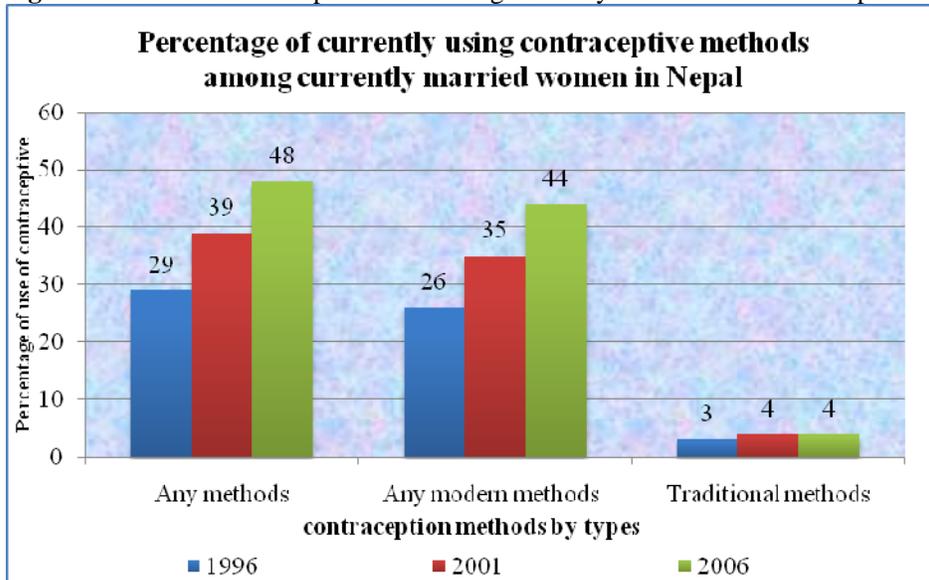
1.3 Problem identification

In Nepal, the population growth is rapidly increasing due to the high fertility rate and mortality rate is declining fast. The structure of population is very young, according to last population census 2001 the 0-14 age group population size is 39.3 percent of the total population. Next some decades the population growth will be high due to the young structure population. Another side the total fertility rate is also very high it is 3.1 per women. For the reduction of the fertility the government of Nepal initially introduced the contraception methods for the reducing birth rate but later this was emphasized not only to reduce birth rate also to reduce infant and child mortality. Moreover Nepal has set goals of increasing the contraceptive prevalence rate to 65 percent by 2017 and reducing the TFR to 2.5 in 2017. However, it has been seen that women do not practice contraception method even though they have good knowledge. Knowledge at least one method of contraceptive is nearly 100 percent but only 48 percent currently married women are using a method of contraception. Furthermore, figure 1.2 provides the level and trends of currently use of contraceptive methods among currently married

women who are using contraceptive for the purpose of delaying or avoid pregnancy in Nepal (Nepal Demography Health Survey, 2006).

Figure 2.1 shows the current use of contraceptive methods among currently married women is in increasing trend it is increased from 29 percent in 1996 to 48 percent in 2006 increased by 68 percent during the 10 years period. Current use of the modern methods is remarkably increased compare with the traditional methods. From figure 1.3 we can observed that modern contraceptive methods are very popular than traditional methods among married women age 15-19. Practice of modern contraception is increased from 26% to 44% respectively from 1996 to 2001 whereas use of traditional methods increased by 1%.

Figure 1.3 Current contraceptive uses among currently married women in Nepal



Source: NDHS 2006

According to Ali and Franklin (2005), exposure to family planning message on television and, husband's approval for using family planning method are leading factors that associated with the use of family planning methods. Similarly an another study about attitudes towards family planning in East Nepal by Glenon and Fegan (1993), states that, most common main reason for not using contraception were health risk and incompleteness of family size. There were strong relationship between son preference and used contraception; couple rarely use contraception until one son had been born. According to Satyayada et al. (2000), education was significance positive influence factor on use of contraception and women who were with cash earning has positive relationship with the current use of contraception

Indeed Practice of contraceptive could be influenced by women's demographic, socio economic status, exposure to government family planning program, attitudes and subjective norms for example husband opinion on family planning methods similarly age of women, no. living children, education, occupation etc. also influenced to use of contraception. So, this study analyzes the impact of government family planning program and find out the set up main influencing factor to current use of modern contraceptive among currently married women in Nepal. Moreover after doing analysis this study tries to come up with the some recommendation for government to meet set goals of use of contraceptive. But it would be linkup with the policy after the interpreting the result and find out the conclusion.

1.4 Research objective

The main objective of this research is to determine demographic and socioeconomic factors influencing, and the impact of government family planning programmes on the current use of modern contraceptive methods among married women in Nepal. The research also wants to examine influence of attitude and subjective norms on current use of modern contraceptive methods among currently married women in Nepal.

1.5 Research Questions

1. What are the demographic factors influencing the current use of modern contraception among currently married women in Nepal?
2. Do the socioeconomic factors influence current use of modern contraceptive methods among currently married women in Nepal?
3. To what extent the government family planning programmes affect current use of modern contraception among currently married women in Nepal?
4. Do the attitude and subjective norms influence the current use of modern contraception among currently married women in Nepal?
5. Are there any rural urban differences on the relationship between highest education level and women's use of modern contraception?
6. Does the relationship between age group of women and using modern contraception differ by women's occupational status?
7. Is there any difference between the use of modern contraception and women's wealth status by exposure to family planning program on TV?

1.6 Structure of Paper

This thesis is divided into 5 chapters. This first chapter deals with background of the thesis including Problem statement, family planning policy, embedding the master thesis with the policy, research objective and research questions. Chapter 2 is devoted to literature review, theoretical part, conceptual model and definition of concepts. Chapter 3 discusses the data source, research design, research methodology, ethical consideration and, data collection. Chapter 4 is all about the analysis and discussions and output of the analysis as well as analyses the relation and strength of relationship between the independent variable with dependent variables. Chapter 5 is ended with the final conclusion of results, and recommendations.

Chapter 2

Theory, literature review and conceptualization

“Theory is a systemic explanation for the observations that relate to a particular aspect of life” (Babbie, 2007). It is a systematic or logical explanation for the observation that relate to a particular aspects of the life. It is needed to deal to emerge and exist reality, and explain and understanding about reality. Theory supports for shaping and directing the research effort. In this chapter detailed discussed about the some background literature related with research questions of the study, theory which are relevance in this study and come up with a conceptual model based on the theory.

2.1 Review of literature

In the field of the family planning methods (contraceptive methods) some of the research had done and their results shows that the use of contraception is determine by the different factors related mostly developing countries and especially in Nepal. A study by Tuladhar (1985) on determinants of contraceptive use in Nepal indicated that the number, and sex of living children, and the age of women were directly related to the prevalence of current contraception. Similarly, women who were want more children and had discussion about family size with their husband the prevalence of use of current contraception was higher, the prevalence of current use of contraception was higher among urban women than rural, higher prevalence of current use contraception among women who were with access short distance family planning service than those who don't have. This study analysed data from Nepal contraceptive prevalence survey 1981 by using logit- liner model.

According to Tawiah E.O. (1997), responded approval of family planning was main explanatory variable of current contraception followed by discussion of family planning and level of education. The summary of this study also shows that respondent's approval of family planning, discussion of family planning with partner, and education were main predicators of current use contraception. Respondents age , number of living children, level of education, respondents' and spouses' approval of family planning were associated with the current use of contraception. Women with higher education were three times more likely to current use contraception than those with no education. Similarly, urban women were 2 times more likely to use modern contraception than rural. The policy recommendation is education particularly female education at least up to secondary and information, education and commutation (IEC) program should be amplify particularly in rural area (Tawiah E.O. 1997). That study examined the relationship between selected demographic and socio-economic variables and contraceptive use status by using logistic binary and multinomial model and data form demography health survey 1988 Ghana.

Another case study conducted by Rimal on hindrances of family planning program: from Banke, Nepal. According to findings of this result explained that women's lack of control of over fertility and higher number of desire children were major hindrances of the community's use of family planning methods. So this study recommended that family planning program could be enhanced by policy reinforcement, advocacy and networking. This study makes others recommendations: the fertility reduction policy should be integrated with child and women empowerment related other development programs, and gender biased law should be changed with the equality based in Nepal (Rimal N.2003).

According to Tuladhar et al. (2008) 93 percent of women knew at least one method of contraception and topmost five methods known by women ranked were Depo-Provera, pills, condom, natural method and emergency contraception. Mass media and education were t main influencing factors on knowledge and awareness of family planning. Compared with level of knowledge (93%) only 35 percent were using family planning methods. This study observed that level of knowledge of family planning, and awareness always doesn't lead to use of contraceptive methods. So, the study recommended that to increase effective use of contraceptive; it is needed to educate and motivate couples as well as improving family planning service and family planning counselling needs to be included into routine antenatal clinic. This study recommended for further research is needed about side effect of contraceptive methods.

(Kumar et al., 2008) desire for more children and son preference were the main influenced factors for not using any contraceptives and they were scared of side effects and health problem. The result of this study showed that 70% women told they were suffered from menstruation problem due to the use of oral contraceptives (Kumar et al. 2008). It was prospective study and 40 women were selected by random sampling from 8 blocks; all women were followed for a one year period.

From the above background literature review we can summarised; the use of contraceptive methods determined by the demographic, socio-economic, cultural, religions, government family planning policies and program, and attitudes related factors. The education has strong effect on use of modern contraception. Furthermore son preference, desire for more children, and women empowerment influenced to use of contraception.

2.2 Theoretical Framework

The main aim of this section to discuss about relevant theories and theoretical framework we use in this research. Mainly look at the three theories which are Malthus theory of population growth (1798), proximate determinant of fertility Bongaarts and Potters (1983), and Ajzen and Fishbein (1980). According to Brujin (2005), theories need to know more about relation in reality. These theories provide the guidelines to analyze data with the research objective and research questions which we mentioned in chapter 1.3 and 1.4.

2.2.1 Malthus theory of principle of population (1798)

Thomas Malthus (1798) discussed about principle of population and published his view on the effect of population on food supply on his book ‘an essay on the principle of population’. He was pessimistic in the view of population growth. He linked the population growth with the food production with main two principles. They were that population growth would increase in geometric (eg; 1,2,4,8.....) rate whereas food production at an arithmetic (1, 2, 3, 4...) rate it makes the imbalance between the population and food production. He stated some positive and preventive checks for the balance between population and food production. Positive checks take care that population growth and food production do match afterwards but preventive checks that care population growth beforehand. He divided the positive and preventive checks into two parts ethical and not ethical which are mentions below:

Positive checks

- Ethical:- exclusive misery: natural death, poverty, epidemics
- Not ethical :- wars, infanticide

Preventive checks

- Ethical:- moral restraint : postponements of marriage
- Not ethical :- use of contraceptive

Thus, this theory is somewhat relevant with this research since Malthus at the first time explains the use of contraceptive for population control as not ethical preventive checks. Although; this theory is not directly with research questions but it provides a historical framework for use of contraception.

2.2.2 Proximate determinants of fertility, Bongaarts and Potter (1983)

An important theory on fertility is the Bongaarts and Potter proximate determinants of fertility. The main idea of this theory is that fertility is directly influenced by the identified set of the proximate determinants and these determinants factors can be influenced by the socio economic and environmental factors. The identified proximate are marriage (marital disruption), onset of permanent sterility, postpartum infecundability, natural fecundability or frequency of intercourses, use and effectiveness of contraception, spontaneous intrauterine mortality and induced abortion. These proximate determinants are related with biological and behavioural factors (Bongaarts and Potter, 1983).

Figure 2.1 Relationship of determinants of fertility, Bongaarts and Potter (1983)

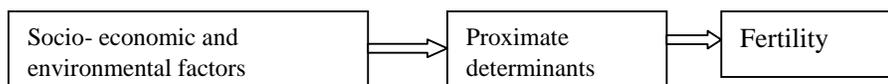


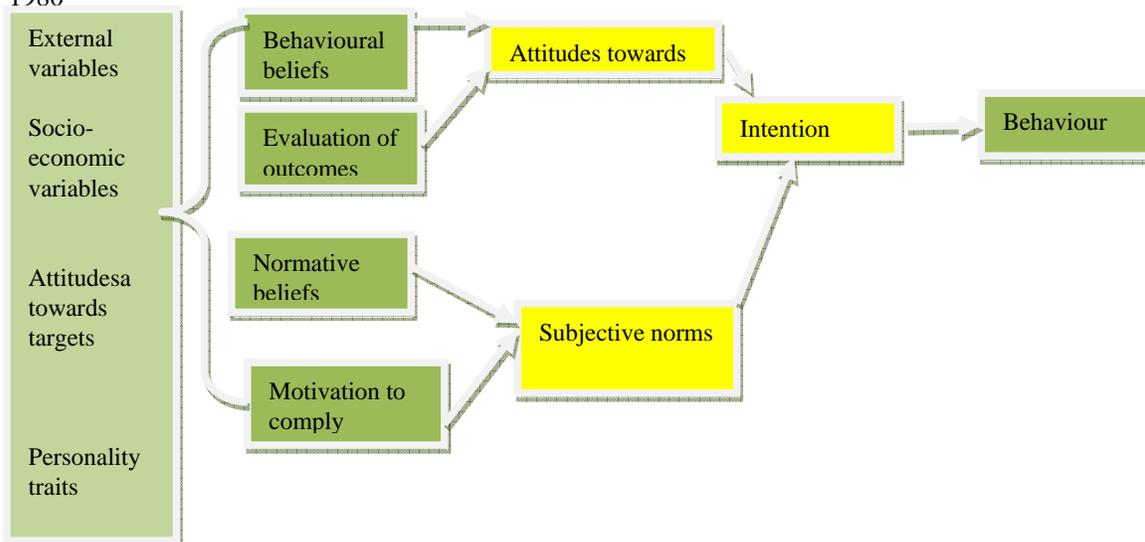
Figure 2.1 shows the direct and indirect relationship of the determinants of fertility. Whereas socio-economic and environmental factor are indirect determinant of fertility which influenced to the set of identified proximate determinant of fertility. For example use of contraception could be influenced by the educational attainment of women. Women have no education she can't understand an important of contraception and she has low chance of use of contraception and has higher chance of become pregnant than women who has higher education. In this study the theory on proximate determinants of fertility is relevant to determine the influence of socio- economic factors on current use of contraceptives among married women in Nepal.

2.2.3 Reasoned action theory Ajzen and Fishbein (1980)

The theory of reasoned action was developed by Martin Fishbein and Icek Ajzen as in improvement over information integration (Ajzen, I, and M. Fishbein 1980). In the reasoned action theory they added one element in the process of persuasion, behavioural intention and they developed the theory planned behaviour in 1988. The theory of reasoned action which was introduced into demography regards to field of contraceptive use, fertility and female labour market participation. This theory is aggregated composition of attitudinal, social influences and intention variables to predict behaviour. The theory predicts that intention to perform behaviour is determine by the individual's attitudes towards the performing the behaviour and the subjective norms held by the individual. They also mentioned that behavioural intention (BI) = Attitude+ subjective norms. In the reasoned action theory the best predictor of the behaviour is the intention whereas intention is the cognitive representation of a person's readiness to perform a given behaviour which is regards as to be the immediate antecedent of behaviour. According to reasoned action theory this intention influence by the attitudes towards the specific behaviour, and their subjective norms (Ajzen, 1998).

According to Ajzen and fishbein (1986) attitudes towards behaviour is personal factor that consider the degree to which a person has about positive or negatively evaluating a specific behaviour and it is consist with a beliefs that lead to a certain outcome and evaluation of the outcome of that behaviour. Whereas the subjective norm is a personal perception of what other around them believes that the individual should do. It is a social or peer pressure whether or not participates or intends to participate any behaviour is strongly influenced by the people around them. Finally person's attitude towards and subjective norms influenced to intend to perform certain behaviour.

Figure 2.2 Conceptual Framework of the theory of reasoned action Ajzen and Fishbein, 1975 and 1980



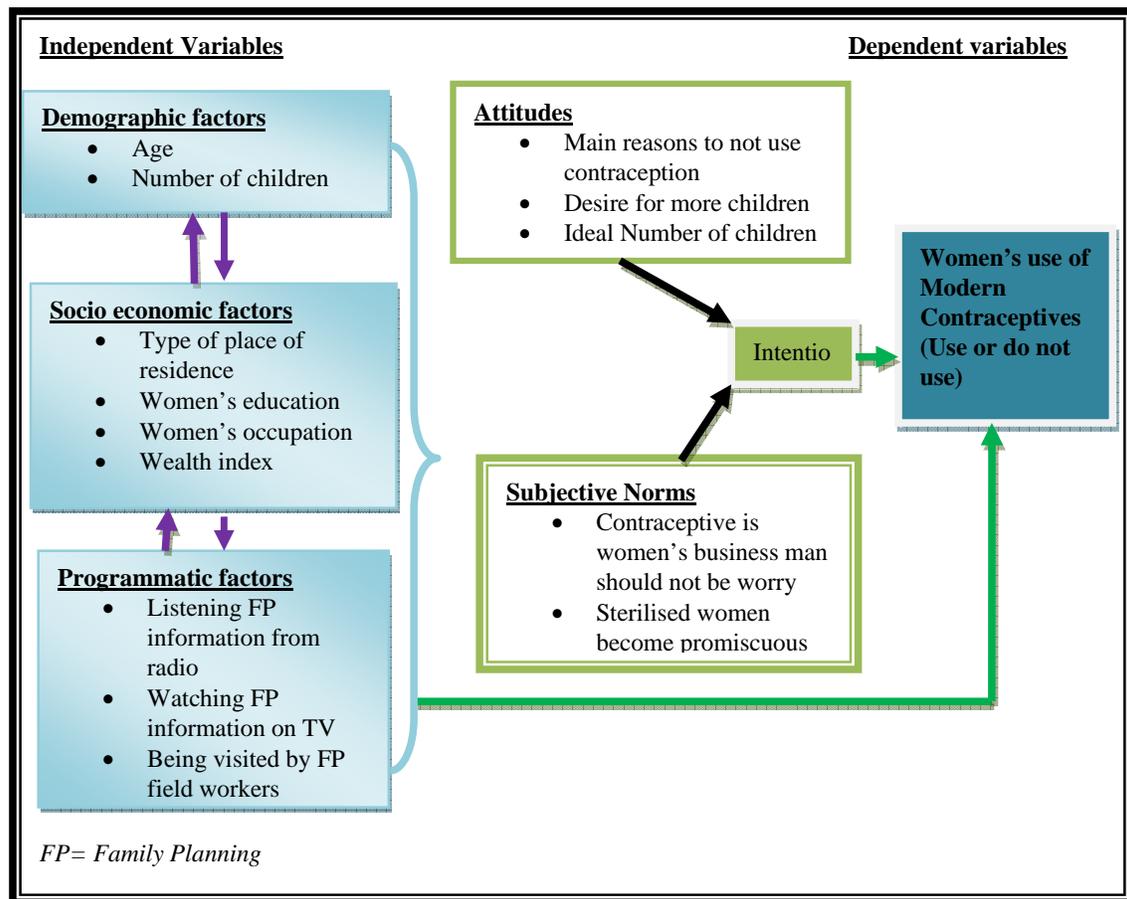
Source: De Bruijn 1999

The reasoned action theory is relevant to this study at micro level since this has a research question which is related with the personal behaviour. The fourth research question is the attitude and subjective norms influence the currently use of modern contraceptive methods among married women in Nepal? This theory explains the relationship between the attitudes towards and subjective norms and current use of modern contraception among married women in Nepal.

2.3 Conceptual Framework

The following conceptual model is based on a set of theories and concepts discussed above. It accumulates the theory proximate determinants of fertility of Bongaarts (1983) and Potters and reason action theory of Ajzen and Fishbein (1980). In this conceptual framework the reasoned action theory explains the relationship of attitudes towards contraceptive and subjective norms of women's and their intended to use or use of contraceptive. In the figure 2.3 it can be seen that the contraceptive behaviour of women determine by their intention to contraceptive behaviour which is influenced by the individual attitudes towards contraceptive and the subjective norms held by individual. The background variable which are include socio economic and environmental factor in the theory of proximate determinants of fertility. In this study includes the socio-economic factors from this theory and added the others demographic and programmatic factors. The background variables directly influenced to the use of contraception.

Figure 2.3 Conceptual framework



The figure 2.3 the conceptual model revealed that the relationship of dependent and independent variables of this study. The main idea is that the contraceptive behaviour intended to use of contraceptive behaviour of women occurs as a result of their attitude towards contraceptive and subjective norms held by them. And also the contraceptive behaviour of women influenced by the

different women's background variables which are: demographic (age, number of children), socio-economic (type of place of residence, women's education, women's occupation, wealth status), and programmatic (listening family planning information from radio, watching family planning program on TV, being visited by Family planning field workers),

2.4 Definition of Concepts

In this section provides definition of the concepts which are mentioned in figure 2.3 conceptual model. Mainly from the conceptual model can classify into two main concept independent and dependent variables. In the independent variables there are main five concept demographic factor, socio-economic factor, programmatic factor, attitudes towards contraception, and subjective norms whereas there are two dependent or outcome variables contraceptive use and contraceptive use by different modern methods. Following in detail discuss about these all concepts and in chapter 3 in section 3.4 briefly explains all variables operational definition.

2.4.1 Independent Variables:

An independent variable is presumed to cause or determine the dependent variable (Babbie 2007). It is known as the explanatory variable. For instance in this study current use of modern contraception depends up on the women's education level or changing the value of the education changing the value of the use of modern contraceptive contraception.

- **Socio-economic factors:** The condition which defines the social and demographic condition of a person in society, Bruijn (2005). Moreover in this study shall include education, age, and caste ethnicity.
- **Attitudes towards contraceptive methods:** The sum of the beliefs about a particular behaviour weighted by evaluation of these beliefs (Fishbein and Ajzen 1980). In this study attitudes towards contraceptive shall include the evaluation of beliefs about contraceptive methods it would be positive or negative such as to belief side effect of any contraceptive methods.
- **Subjective Norms:** Look at the influence of the people in owns social environment on his/her behaviour intentions; the beliefs of the people, weighted by the importance one attributes to each of their opinions will influence one's behavioural intention ((Fishbein and Ajzen 1980). In this study women's husband and families belief towards contraceptive and discussion & husband and family permission to take decision for adapting contraceptive methods.
- **Behavioural intention:** A function of both attitudes toward behaviour and subjective norms towards behaviour which has been found actual behaviour. Furthermore the attitude + subjective norms influence behavioural intention which is turn influence behaviour (Fishbein and Ajzen, 1980). In this master thesis, women's attitude toward contraceptive and her husband and family belief and pressure about contraceptive methods influenced to behavioural intention to practice contraceptive method.

2.4.2 Dependent variables:

A variable assumed that to depend or determine by others or independent variables (Babbie, 2007). It is also known as the outcome variable. For example in this study current use of modern contraceptive is determined by the women's attitudes towards contraceptive.

- **Contraceptive Methods:** Mosby's Medical Nursing and Allied Health Dictionary (2002:302) define contraceptive methods as "any act, device or medication for avoiding conception or a viable pregnancy", such as cervical cap, condom, diaphragm, intrauterine device, natural family planning method, oral contraceptive, spermicide, sterilization." In this study, contraceptive method shall include modern birth (delay or avoid pregnancy) control measures
- **Practice of Contraceptive methods:** An effort of women/couples to delay or avoid pregnancy through the use of any contraceptive methods.

2.5 Research Hypothesis

To achieve the objective of the study and based on the information from the literature review, the following hypothesis set:

1. It was hypothesized that increases age of women had negative influenced on women's use of modern contraception.
2. Urban women are more likely to use of modern contraception than rural women.
3. Higher education level of women has positive influences on use of contraception.
4. Women with higher economic status are more likely to use of contraception than women with lower economic status.
5. Working women are more likely to use of modern contraception than women without work
6. Women who are listened radio about family planning program are more likely to use modern contraception.
7. Women who are exposed to television family planning program are more likely to use modern contraception.
8. Women who have ever visited by the family planning field worker are more likely to use modern contraception.
9. Women who desired to have more children have negative effect on use of modern contraception.
10. Urban women were more likely to use modern contraception and also have higher educational attainment than rural women.
11. Women who are working in service and manual sector are more likely to use modern contraception and also increase the use of modern contraception increases as their age.
12. Women who exposed family planning program on TV have higher chance to use modern contraception and also with higher wealth status.

Chapter 3

Data and Methods

3.1 Data sources

This study uses the data from Nepal Demographic Health Survey 2006 (NDHS). It is a national representative survey of 10793 women age 15-49 and 4,397 men age 15-59 respondents. This survey was conducted under the Ministry of Health and Population and implemented by New Era local research organisation. NDHS is as a part of the world wide Demographic and Health Survey (DHS) project with the technical assistance of Macro International (Nepal Demographic Health Survey Report, 2006).

Nepal Demographic and Health Survey 2006 was designed to provide estimates of major demographic and health indicators at the national and sub-regional level by gathering data on fertility, family planning, maternal and child health, and HIV/AIDS. The sample was designed for providing the information in the 13 domains obtained by cross-classifying the three ecological zones (mountain, hill and terai) with the five development regions (East, Central, West, Mid-west, and Far-west). The NDHS 2006 used the sampling frame provided by the list of census enumeration areas with population and household information from the 2001 Population Census. Each of the 75 districts was subdivided into Village Development Committees (VDCs), and each VDC into wards. The primary sampling unit (PSU) for the 2006 NDHS was a ward, sub-ward, or group of wards in rural areas, and sub-wards in urban areas. In order to provide statistically reliable information of key demographic and health related variables; NDHS 2006 the sample was based on a two-stages. At the first stage of sampling, 260 PSUs (82 in urban areas and 178 in rural areas) were selected using systematic sampling with probability proportional to size. A complete household listing operation was then carried out in all the selected PSUs to provide a sampling frame for the second stage selection of households. At the second stage of sampling, systematic samples of about 30 households per PSU on average in urban areas and about 36 households per PSU on average in rural areas were selected in all the regions. The total sample is weighted and a final weighting procedure was applied to provide estimates for the different domains, and for the urban and rural areas of the country as a whole. Representative probability samples of approximately 9,036 households were selected. All women aged 15-49 who slept in a sample household the nights before the interviewers visit were eligible respondents and all men age 15-59 living every second in sample households were eligible to be interviewed in the survey (Nepal Demographic Health Survey Report, 2006).

Nepal Demographic and Health survey 2006 there were administered three questionnaires: the household questionnaire, the women's questionnaire, and the men's questionnaire. In this study, uses the couple data file for analysing from NDHS 2006 because of this study focuses on practice of contraceptive behaviour among married women who are living together with their husband at the time of interview. The couple data set has one record for every couple; it contains data for married or living together man and women who both declared to be married (living together) to each other and with completed individual interviewees (questionnaires). The file is result of linking two (individual/women's and men's) files based on whom they declared as partners. In the couple file only included the identified couple from the sample. In couple file 2600 couples were recorded.

3.2 Research Design

The study would use quantitative and descriptive research design. This study describes contraceptive knowledge, attitudes regarding contraception as well as contraceptive practice among women in Nepal. And it describe about how to associate the socio economic status of women and their knowledge, attitude and subjective norms towards contraceptive. Time dimension: cross-sectional and data from one point and collected from the Nepal demographic and Health Survey 2006, Ministry of Health and population. The Ministry of Health and Population, Nepal provides the data household base and personal base.

3.3. Identification of variables

In order to testing of hypotheses and find out the answer of research questions from the conceptual framework figure 2.3 variables are classified into independent and dependent which are as follows:

➤ *Dependent Variables*

- Women's use of modern contraceptive

➤ *Independent variables*

Independent variables classified into four categories which are listed below:

- **Demographic**
 - Age
 - Number of children
- **Socio-economic**
 - Type of place of residence
 - Women's education
 - Women's occupation
 - Wealth status
- **Programmatic**
 - Listening FP information from radio
 - Watching FP information on TV
 - Being visited by FP field workers
- **Attitude**
 - Desire for more children
 - Ideal number of children
- **subjective norms**
 - Contraception is women's business
 - Sterilised women become promiscuous

3.4 operational definitions of variables

For the finding the answer of the research question of this study the above identified variables can be operationalisation as follows:

3.4.1 Outcome/ dependent variables

Women's current use of modern contraceptive: It is an outcome or dependent variables and measured by the value taken directly from the NDHS 2006. In NDHS 2006 it was recorded into 4 different categories: '0'= non use, 1= folkloric methods, 2= traditional methods and 3= modern methods. But for the binary analysis it needed to recode into dichotomies variables with two categories: women's who are currently not using modern contraceptive methods into '0' and women's who were currently using modern contraceptive methods into '1'. In the modern contraceptive methods include female and male sterilization, daily pills, IUD, injectable, implants, and emergency contraception pills, male and female condoms.

3.4.2 Independent Variables

➤ *Demographic variables*

- **Women's Age:** This variable is measured by current age of women in complete years at the time of the survey it is directly taken from NDHS. The age of married women were classified into 5 years age interval group from 15-49 ages.
- **Number of living children:** It refers to the total number of living children of the women at the time of the interview of the survey but excluding adopted and stepchildren. Is needed to recode, it will categories into different 5 groups: 0= no children, 1=one child, 2= two children, 3= three children, and 4= Four and more children.

➤ *Socio-economic variables*

- **Types of place of residence:** This variable directly taken from the NDHS 2006, it was categories into 2 groups: 1= urban and 2= Rural.
- **Women's education:** Women's education will measure by the higher level of education in completed year women had attended in formal education. It is directly taken form NDHS 2006 and it has three categories: 0= no education, 1= primary, 2= secondary and 3= Higher.
- **Women's occupation:** It is measured by the variable taken from the NDHS 2006, in which respondent who reported themselves as a kind of work they are working at the time of survey. It was categories into different 8 groups: 0= not working, 1= professional, technical and managerial, 2= clerical, 3= sales, 4= agric-self employed, 5= agric employee, 6= services, 7= skilled manual, 8= unskilled manual. These variables directly measured form the NDHS 2006 but for analysis; it will be categories into 4 different groups: first; not working = not working, second; agriculture sector = agric- self employed, and agric- employee, and third; service and manual = professional, technical, managerial, clerical, sales, services, skilled, and unskilled manual work.
- **Wealth status:** This variables measured by the directly taken from the NDHS 2006, it refers to the economic status of household and information was collected on the household characteristic, and assets which are measure of socio economic status. This variable divided into different 5 categories 1= poorest, 2= poorer, 3= middle, 4= richer, and 5= richest.

➤ *Programmatic variables*

- **Listening FP information from radio:** The variable directly taken from the NDHS 2006, the information collected women who had heard the family planning information from the radio on the last few months prior to the interview. It was categories in to 0=No, and 1= Yes.
- **Watching FP information on TV:** The variable directly taken from the NDHS 2006, the information collected, women who had watched and heard the family planning information on Television on the last few months prior to the interview. It was categories into 0= no, and 1= yes.
- **Being visited by FP field workers:** It refers to the women who had been visited by the family planning field worker at home during the last 12 months. It was also categorised into 0= no, and 1= yes.

➤ *Attitudes and subjective norms related variables*

➤ *Attitudes related variables*

- **Desire for more children:** This variable measured directly taken from the NDHS 2006, It has different eight categories 1= wants within 2 years, 2= wants after +years, 3= wants unsure timings, 4= undecided, 5= wants no more, 6= sterilised, 7= declared infecund 8= never has sex.
- **Ideal number of children:** For measuring of this variable directly taken from NDHS 2006, it has different 6 categories 0= no more desire, 1= 1, 3= 2=2, 3=3, 4=4, 5=5, 6=6+ above.

➤ *Subjective norms related variables*

- **Contraceptive is women business man should not worry:** This variable taken from the NDHS 2006, the information was collected from the male respondents who are currently living with their wife. And it has three categories 0= disagree, 1= agree, 3= don't know.
- **Sterilised women become promiscuous:** This variable taken from the NDHS 2006, the information was collected from the male respondents who are currently living with their wife. And it has three categories 0= disagree, 1= agree, 3= don't know. In addition, the table 3.1 provides the summary information of the operationalised of the all selected variables for analysis in the file.

Table 3.1 Summary of operational definition of dependent and independent variables

| S.N | Variables | Operational definitions | Measurement scale |
|------------------------------|-------------------------------------|---|--|
| <i>Dependent variables</i> | | | |
| 1 | Morden contraceptive use of women | Women were currently using modern contraceptive method | Dichotomous 0= Not use, 1= used |
| <i>Independent variables</i> | | | |
| 1 | Age of women | Age of married women in 5 years age interval groups from age 15- 49. | Categorical 1= 15-19, 2= 20-24, 3= 25-29, 4= 30-34, 5= 35-39, 6= 40-44, and 7= 45-49 |
| 2 | Number of living children | Number of living children that women had at the time of interview | Categorical 0= no child, 1= 1 child, 2= 2 children, 3= 3 children 4= 4 and more children |
| 3 | Place of residence | The place where women were living. | categorical 1= urban, and 2= rural |
| 4 | Women's education | Highest level of education that women had attended in the formal education. | Categorical 0= no-education, 1= primary , 2= secondary, and 4= Higher education |
| 5 | Women's occupation | Women's reposent themselves what they are doing at the time of interview | Categorical 0=Not working) 1= Agriculture sector 2= Services, and manual work |
| 6 | Wealth status | The economic status of household | Categorical 1= poorest, 2= poorer, 3= Middle 4= richer, and 5= richest |
| 7 | Listening FP information from radio | Women who had heard FP information from radio | categorical 0= no, 1= yes |

| | | | |
|----|--|--|--|
| 8 | Watched the FP information on TV | Women who had watched and heard FP information on TV 0= no, 1= yes | dichotomous 0= no, 1= yes |
| 9 | Family planning field worker visited at home | Women who had been visited by FP field worker during last 12 months 0= no, 1= yes | categorical 0= no, 1= yes |
| 10 | Desire for more children | Women decide to have more child with in certain time periods | categorical 1=wants within 2 years 2= wants within 2+ years 3= wants unsure timing 4= undecided 5= wants not more |
| 11 | Ideal number of children | Women's ideal number of children to have with her | 0= 0, 1=1, 2=2, 3=3, 4=4, 5=5, 6= 6 above |
| 12 | Contraceptive is women's business | Husband's attitudes on use of contraception | 0= disagree 1= agree |
| 13 | Sterilised women become promiscuous | Husband's attitudes on use of contraception | 0= disagree 1= agree |

3.5 Data handling and processing

In this study, the statistical package for social scientists (SPSS) is used to analyze data. The data already in SPSS software format requested through the Ministry of Health and Population, Nepal. The set from couple data file of the NDHS 2006, in which 2155 variables are included with information about demographic and health indicators for example; fertility, family planning, child health, maternal health, and HIV/AIDS etc. At first it has to pay attention to select only necessary variables from the huge data set with 2155 variables for analysis. The selected variables were selected based on the good measures of the concept in the conceptual model figure 2.1 and good measure of the operational definition of the independent and dependent variables mentions in table 3.1. After selecting the necessary variables some of variables have to needed to re-create new variables with new categories for the planned analysis. Among the above section 3.1 selected variables some of the variables are needed to compute as a new variables which already mention.

3.6 Methods of analysis

This study mainly based on the quantitative methods for examining the data from NDHS 2006 which are briefly discussed at operational definition. There is several statistical data analysis methods but in this study mainly used three methods of statistical analysis to analyze the relationship among independent and dependent variables which are univariate analysis, logistic regression, and multinomial logistic regression.

Univariate analysis involves across the cases of one variable at a time. In this study univariate analysis are carried out to seek the frequencies, percentages, and cross tabulation of the dependent and independent variables.

The logistic regression is a very flexible tools of any data analysis concern with the describing the relationship between a dichotomous outcome variables and a set of independent (explanatory or predictor) variables that can be continuous or categorical. It is useful for situations in which you want to be able to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables. It is similar to a linear regression model but is suited to models where the

dependent variable is dichotomous (Nuruis, 1997). These independent variables often called covariates. The logistic regression is similar to linear regression but it is very appropriate in models where the dependent variable is dichotomous. In this study the logistic regression was applied to know the effect of the set independent or explanatory variables on women's use of modern contraceptive. The outcome or dependent variables is dichotomous with categorical responses 'yes' or 'no' to use of modern contraceptive by married women and coded into 1= 'yes' and 0= 'no'.

3.7 Ethical issues

This study based on the micro data of Nepal Demographic Health Survey 2006 and the published by the Ministry of Health and Population. The consent for using the data has been taken form concern authority. During the analysis and reporting researcher should fully follow the ethical obligation as a researcher as well as to the subject. The research result will be published with the aggregate data. The confidentiality of individual respondent is completely maintained.

Chapter 4

Results and discussion of results

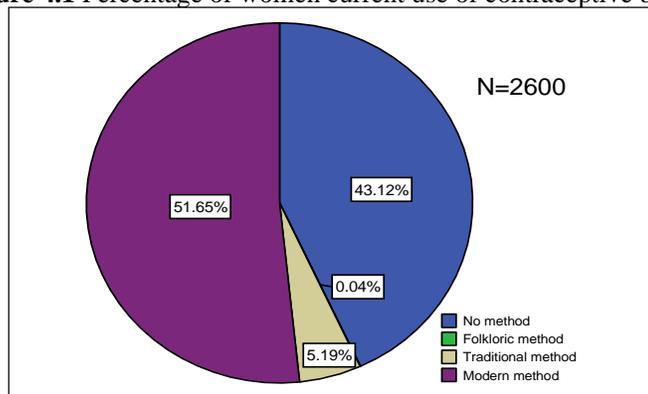
In this chapter data results are presented in three sections and final section provides the discussion of the results. First section provides the descriptive statistic of sample, demographic and socioeconomic characteristic of respondents, and exposure to family planning programmes (background characteristics) of respondents, and cross tabulation of all independent variables in the analysis file, against dependent variable. Second session gives the research result by questions and hypothesis while third session presents all the covariates combined together influence women's current use of modern contraceptive use. Final section finished with discussion the results with the previous relevant research results.

4.1 Descriptive analysis

4.1.1 Description of the current status of use of contraception among currently married women

The respondents have been selected for the analysis women who are currently married and staying with partner (couples). The total sample was 2600 and in the following part describes the demographic and socio-economic characteristics and exposure to family planning program of respondents.

Figure 4.1 Percentage of women current use of contraceptive by methods



Above figure 4.1 explains that 51.65 percent were using modern contraception methods while 5.19 percent were using the traditional methods and very less 0.04 percentages of women were using folkloric methods and until now very high percentages 43.12 are not using any contraception methods of whole sample of current married women.

Table 4.1 Frequencies and percentages of contraception methods use by currently married women

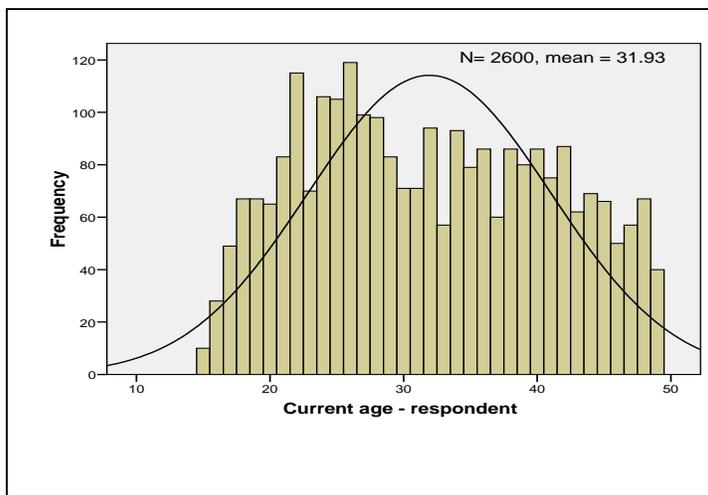
| contraceptive Methods | Frequency | Percent |
|---------------------------------------|-------------|------------|
| Modern methods | | |
| Pill | 96 | 7.1 |
| IUD | 18 | 1.3 |
| Injections | 317 | 23.6 |
| Implants | 19 | 1.4 |
| Condom | 186 | 13.8 |
| Female Sterilization | 488 | 36.3 |
| Male Sterilization | 219 | 16.3 |
| Total | 1343 | 100 |
| Traditional and others methods | | |
| Periodic Abstinence | 50 | 36.8 |
| Withdrawal | 85 | 62.5 |
| Other | 1 | 0.7 |
| Total | 136 | 100 |

Table 4.1 shows the frequency and percentage of all those women currently use of any contraception methods by actual methods used. Female sterilization was more popular 36.34 percent were using among the modern contraception methods users while male sterilization users were 16.31 percent. Second most used modern contraception was injection 23.60 percent were using among modern contraception users while Implant and IUD were less popular among the modern contraception users. On the other hand withdrawal method was popular and 62.50 percent were using withdrawal whereas 36.76 percent were using periodic abstinence among the traditional contraception users.

4.1.2 Demographic factors /characteristics of currently married women

The figure 4.2 histogram chart shows the age distribution of the women in whole sample N=2600. According to the histogram result the mean age of the women is 31.93 years which is average age of the distribution of the whole sample. The median age of sample is 31 years which indicate that half of the whole sample greater than 31 years and half of the whole sample less than 31 years. The mode or highest frequency is 26 years.

Figure 4.2 Current age distribution of current married women



Below result in table 4.2 reveals that the number of living children having the currently married women. In the sample 33.04 percent of women had 4 and more children while smallest proportion of women (9.23 percent) had no child. In addition, women who had 1 to 2 children constituted more than 35 percent. Furthermore, more than 50 percent women had 3 children or more.

Table 4.2 Percentage and frequency of number of living children of currently married women (aged 15-49)

| Number of living children | Frequency | Percent |
|---------------------------|-------------|---------------|
| No children | 240 | 9.23 |
| 1 Child | 361 | 13.88 |
| 2 Children | 560 | 21.54 |
| 3 Children | 580 | 22.31 |
| 4 and more children | 859 | 33.04 |
| Total | 2600 | 100.00 |

4.1.3 Socio economic factors/ characteristics of currently married women

Below table 4.3 shows the distribution of socio-economic characteristics of currently married women aged 15-49. Among the whole sample majority of women that is 74.04 were living in rural area while only 25.96 percent were living in urban area. Regards to the educational level higher proportion of currently married women that was 64.92 percent were with no education whereas only 2.54 percent with higher education. But 32 percent women they were completed the primary and secondary level of education. Furthermore, wealth index there was not much difference on distribution of currently married women in the all categories have on an average same proportion. In regards to currently married women occupation's majority of women that was 75.50 percent worked in agriculture sector while only 11.81 percent women were worked in service and manual work and 14.69 percent women were without any work.

Table 4. 3 Frequency and percent of the selected socioeconomic characteristics of currently married women

| Characteristics | Frequency | Percent |
|-----------------------------------|------------------|----------------|
| Type of place of residence | | |
| Urban | 675 | 25.96 |
| Rural | 1925 | 74.04 |
| Total | 2600 | 100 |
| Highest educational level | | |
| No education | 1688 | 64.92 |
| Primary | 423 | 16.27 |
| Secondary | 423 | 16.27 |
| Higher | 66 | 2.54 |
| Total | 2600 | 100 |
| Wealth index | | |
| Poorest | 545 | 20.96 |
| Poorer | 523 | 20.12 |
| Middle | 464 | 17.85 |
| Richer | 563 | 21.65 |
| Richest | 505 | 19.42 |
| Total | 2600 | 100 |
| Women's occupation | | |
| Not working | 382 | 14.69 |
| Agriculture Sector | 1911 | 73.50 |
| Service & manual work | 307 | 11.81 |
| Total | 2600 | 100 |

4.1.4 Respondents Exposure to selected government family planning programs

The result of table 4.4 reveals that the respondent's exposure to the some selected government family planning programs. Among the whole sample higher proportion of respondents 68.27 percent were exposed to the listening family planning program from radio while not exposed proportion was 31.73 percent. But less proportion of respondent that was 35.31 percent had exposure to watch family planning programme on TV remains hadn't exposure. In regards to visited by family planning field worker the only 11.96 percent had exposure on this program.

Table 4.4 Frequency and percent of the selected socioeconomic characteristics of currently married women

| Listening FP on Radio | Frequency | Percent |
|------------------------------|------------------|----------------|
| Not exposed | 825 | 31.73 |
| Exposed | 1775 | 68.27 |
| Total | 2600 | 100 |

| Watching FP on TV | Frequency | Percent |
|--------------------------|------------------|----------------|
| Not exposed | 1682 | 64.69 |
| Exposed | 918 | 35.31 |
| Total | 2600 | 100 |

| Visited by FP field worker | Frequency | Percent |
|-----------------------------------|------------------|----------------|
| Not visited | 2289 | 88.04 |
| Visited | 311 | 11.96 |
| Total | 2600 | 100 |

4.1.5 Relationship of all independent variables (demographic, socio-economic, pragmatic, attitudes and subjective norms) and use of modern contraceptive

In the below table 4.1 give details that relationship of current modern contraception use by their characteristics of demographic, socio-economic, exposure to family planning program, attitude and subjective norms.

Table 4. 5 Result of cross tabulation for all independent variables in analysis and their relationship with dependent variables (use of modern contraceptive)

| Characteristics | women's current contraceptive use | | | Chi square |
|-----------------------------------|--|-------------|-------------------|-------------------|
| | % Not use | %Use | Total %(N) | |
| 1. Demographic | | | | |
| Age 5-year groups | | | | 0.00 |
| 15-19 | 80.5 | 19.5 | 100 (221) | |
| 20-24 | 62.2 | 37.8 | 100(439) | |
| 25-29 | 48.0 | 52.0 | 100(504) | |
| 30-34 | 35.0 | 65.0 | 100(386) | |
| 35-39 | 33.0 | 67.0 | 100(391) | |
| 40-44 | 39.8 | 60.2 | 100(379) | |
| 45-49 | 53.2 | 46.8 | 100(280) | |
| Number of living children | | | | 0.00 |
| No children | 92.1 | 7.9 | 100(240) | |
| 1 Child | 65.7 | 34.3 | 100 (361) | |
| 2 Children | 40.5 | 59.5 | 100 (560) | |
| 3 Children | 32.2 | 67.8 | 100 (580) | |
| 4 and more children | 44.8 | 55.2 | 100 (859) | |
| 2. Socio- economic | | | | |
| Type of place of residence | | | | 0.00 |
| Urban | 40.3 | 59.7 | (100) 675 | |
| Rural | 51.2 | 48.8 | (100) 1925 | |
| Highest educational level | | | | 0.15 |
| No education | 49.9 | 50.1 | (100) 1688 | |
| Primary | 46.8 | 53.2 | (100) 423 | |
| Secondary | 44.0 | 56.0 | (100) 423 | |
| Higher | 47.0 | 53.0 | (100) 66 | |
| Wealth index | | | | 0.00 |
| Poorest | 67.9 | 32.1 | 100 (545) | |
| Poorer | 49.7 | 50.3 | 100(523) | |
| Middle | 44.8 | 55.2 | 100 (464) | |
| Richer | 42.1 | 57.9 | 100 (563) | |
| Richest | 36.0 | 64.0 | 100 (505) | |

Table 4.5 continued.....

| Characteristics | women's current contraceptive use | | | chi-square |
|--|-----------------------------------|------|------------|-------------|
| | % Not use | %Use | Total %(N) | |
| Women's occupation | | | | 0.00 |
| Not working | 50.0 | 50.0 | 100 (382) | |
| Agriculture Sector | 50.5 | 49.5 | 100 (1911) | |
| Service & manual work | 32.6 | 67.4 | 100 (307) | |
| 3. Exposure to FP program | | | | |
| Heard FP on radio | | | | 0.00 |
| Not listen from radio | 52.8 | 47.2 | 100 (825) | |
| Listen FP from Radio | 46.3 | 53.7 | 100 (1775) | |
| Heard FP on TV | | | | 0.00 |
| Not heard FP on TV | 54.2 | 45.8 | 100 (1682) | |
| Heard FP on TV | 37.7 | 62.3 | 100 (918) | |
| Visited by FP worker | | | | 0.00 |
| Not visited by Fp field worker | 50.1 | 49.9 | 100 (2289) | |
| Visited by FP worker | 35.4 | 64.6 | 100 (311) | |
| 4. Attitudes | | | | |
| Desire for more children | | | | 0.00 |
| Wants within 2 years | 90.5 | 9.5 | 100 (243) | |
| Wants after 2+ years | 65.3 | 34.7 | 100 (3230) | |
| Wants, unsure timing | 75.0 | 25.0 | 100 (8) | |
| Undecided | 88.6 | 11.4 | 100 (35) | |
| Wants no more | 59.1 | 40.9 | 100 (1211) | |
| Sterilized | 0.00 | 100 | 100 (707) | |
| Declared infecund | 100 | 0.00 | 100 (720) | |
| Ideal number of children | | | | 0.00 |
| No ideal number | 66.7 | 33.3 | 100 (3) | |
| 1 child | 48.2 | 51.8 | 100 (139) | |
| 2 Children | 45.9 | 54.1 | 100 (1389) | |
| 3 Children | 48.3 | 51.7 | 100 (777) | |
| 4 children | 57.5 | 42.5 | 100 (233) | |
| 5 children | 69.4 | 30.6 | 100 (36) | |
| 6+ above | 70.6 | 29.4 | 100 (17) | |
| Non-numeric response | 66.7 | 33.3 | 100 (6) | |
| 5. Subjective norms | | | | |
| Contraception is woman's business, man shouldn't be worry | | | | 0.00 |
| Disagree | 47.0 | 53.0 | 100 (2230) | |
| Agree | 56.2 | 43.8 | 100 (365) | |
| DK | 80.0 | 20.0 | 100 (50) | |
| Sterilized women become promiscuous | | | | 0.00 |
| Disagree | 46.1 | 53.9 | 100 (2063) | |
| Agree | 56.9 | 43.1 | 100 (508) | |
| DK | 58.6 | 41.4 | 100 (29) | |

From table 4.5, it was observed that modern contraception used increased from 20 percent to 67 percent as age increased 15-19 to 35-39 and thereafter started decline. Among the whole sample highest non- users were 80 percent at younger age group 15-19. Use of modern contraception was higher among women who had 2, 3 and 4 and more children (59.5, 67.8, and 55.2 percent) whereas very less use of modern contraception it was 7.9 percent women who hadn't any children.

In regards to socio economic variables result reveals that use of modern contraception among rural and urban women was not much difference but the percentage of contraception was slightly higher in urban area which was 59.7 percent compared to 48.8 percent among rural women. In regards to the education level the result explains that women with completed secondary education were more likely to use of modern contraception, 56 percent compared those who hadn't education, with primary and with higher education (50.1, 53.2, and 53 percent). Moreover, by the wealth index use of modern contraception was higher women with richest position while lower percent, 32.1 percent were used modern contraception among women with poorest position. By women's occupation the use of modern contraception was higher among women with service and manual work, 67.4 percent compared to women with no work and agriculture work (50.5 and 50 percent respectively).

The table 4.5 result regards to the women's exposure to the government family planning program shows that the percent using modern contraceptive was higher among women who were exposed to listen family planning program from radio, 53.7 percent than those who weren't exposed (47.2 percent). Similarly, women who exposed to watch family planning program on Television were more likely to use contraception than who weren't exposed (62.3 against 45.8 percent). Result also shows that 64.6 percent women's who were visited by family planning field worker were using modern contraception while only 49.9 percent weren't using among them.

As to women's desire for more children the result reveals that use of modern contraceptive was universal women who sterilised. In addition, the use of modern contraceptive was higher among women who wanted no more children (40.9 percent) against to those who wanted children within 2 years and after 2 years (9.5 and 34.7 percent). In addition, increasing the ideal number of children from 1 to 6+ as decreased the use of modern contraceptive use from 51.1 percent to 29.4 percent.

The result in 4.5 also explains that use of modern contraceptive was slightly higher those women's whose husband were disagree with the statement of "contraception is women business, man shouldn't worry" compared to those whose husband agreed (53 against 43.8 percent). Similarly higher percent (53.9 percent) were using modern contraception respondents whose husband was disagreed with the statement of "sterilised women become promiscuous" against (43.1 percent) to those whose husband was agreed.

As regards chi-square test in table 4.5 demonstrates that test of statistical significance relationship between independents and dependent variables; it shows all independents variables were statistically significance except educational attainment of women. The chi-square p-value for educational attainment of women had 0.15 whereas all others independents variables in analysis had less than 0.05.

4.2 Binary logistic (multivariate) analysis

The binary logistic regression is adopted for determining association of dependent and independent variables in the analysis. The dependent variable is binary 0= not use of modern contraception and 1= use modern contraception. The estimated regression coefficients are presented in the form of exponential coefficient that is odd ratio (OR) for interpretations. Value of odd ratio greater than 1 implies that an increase variable more likely to increase the event to occur i.e. positive effects. Odd ratio less than 1 indicate the decrease in probability as that variable is increased i.e. negative effects and odd ratio 1 implies no effect at all.

4.2.1 Influence of selected demographic factors on women's use of modern contraception

In this study the first research question aimed that finding out the demographic factors influenced the women's use of modern contraceptive. For this analysis of effect of demographic factors on women's use of modern contraceptive two demographic variables were selected; that were no of living children, and age of women. It was hypothesized that increases age of women had negative influenced on women's use of modern contraception.

Table 4.6 result of logistic regression shows the odds and significance level of the women's use of modern contraceptive and demographic variables, age of women and no of living children as explanatory variables. Both demographic variables show the statistically significant impact on women's use of modern contraception. But in regards to women's age there were overall effect on use of modern contraception when looking at specific age groups there were not significant effect.

The result showed that women's age group 30-34, 35-39, and 40-44 had higher odds of currently using modern contraception than women's age 15-19 but for others remains age groups of women had low odd than age group 15-19. In other words it can be interpret women's whose ages between the age group 30-34, 35-39 and 40-44 were more likely to be using modern contraception than younger age group 15-19 but women who were with 20-24, 25-29, and 45-49 age groups the odds for using modern contraception were increases by factor 0.80, 0.99, and 0.83 respectively as compared to those with 15-19 age group. The variable no of living children, it found that it had strong effect on use of modern contraception. The odds of using modern contraceptives was increasing very rapidly among those women who were with 1, 2, and 3 children thereafter it was slightly decreased. For example women who were with 1 and 2 children were 6, and 16, times respectively more likely to use of modern contraception compared as women those without child.

Table 4.6 Odds ratio of logistic regression on using modern contraception of currently married women for demographic variables

| Demographic factors | Exp(B) | Sig.(0.05) |
|------------------------------|---------------|-------------------|
| Age | | 0.00 |
| 15-19 | Ref. | Ref. |
| 20-24 | 0.80 | 0.34 |
| 25-29 | 0.99 | 0.98 |
| 30-34 | 1.60 | 0.07 |
| 35-39 | 1.80 | 0.02 |
| 40-44 | 1.43 | 0.17 |
| 44-49 | 0.83 | 0.50 |
| No of living Children | | 0.00 |
| No child | Ref. | Ref. |
| 1Children | 6.39 | 0.00 |
| 2Children | 15.53 | 0.00 |
| 3 Children | 19.18 | 0.00 |
| 4 and more children | 10.91 | 0.00 |

4.2.2 Effect of women's socio- economic status on use of modern contraception.

The second research question focused on the find out the impact of socio economic status of women's on women's use of modern contraception. The stated hypotheses were:

- Urban women are more likely to use of modern contraception than rural women.
- Higher education level of women has positive influences on use of contraception.
- Women with higher economic status are more likely to use of contraception than women with lower economic status.
- Working women are more likely to use of modern contraception than women without work.

Type of place of residence, educational attainment, wealth index and women's occupation variables were selected for the analysis of effect of women's socioeconomic status on use of modern contraception. Among them wealth index and women's occupations and their all categories are statistically significant with women's use of modern contraception while place of residence and educational attainment are not significant.

From table 4.7 observed that women who were living in the rural and urban area it doesn't have significant effect on use of modern contraception. Similarly, women who were with primary, secondary, and higher education and with no education there weren't different effect on use of

modern contraception. For example; odds of using modern contraception women with primary education was 0.92; it was near 1 so it didn't have enough effect on use of modern contraception as similar in secondary and higher women's education levels. In addition, the odds of using modern contraception as the level of wealth status increased. Women who were in the poorer, middle, richer and richest wealth status were more likely to use contraception (2 , 3 , 3 and 4 times respectively) than those were poorest group. Moreover, women who were engaged in the agriculture sector and service and manual work were more likely to use modern contraception 1.55 and 2.14 times respectively than women those not engaged. From result our stated last two hypotheses were proved and first two hypotheses were not proved.

Table 4.7 Result of the relation of place of residence, educational attainment, wealth index and women's occupation with women's use of modern contraception

| Socio-economic factors | Exp(B) | Sig.(0.05) |
|----------------------------------|---------------|-------------------|
| Place of residence | | |
| Urban | Ref. | Ref. |
| Rural | 0.88 | 0.23 |
| Highest educational level | | |
| No education | Ref. | Ref. |
| Primary | 0.92 | 0.48 |
| Secondary | 0.83 | 0.13 |
| Higher | 0.59 | 0.06 |
| Wealth Index | | |
| Poorest | Ref. | Ref. |
| Poorer | 2.18 | 0.00 |
| Middle | 2.68 | 0.00 |
| Richer | 3.05 | 0.00 |
| Richest | 4.34 | 0.00 |
| Women's occupation | | |
| Not working | Ref. | Ref. |
| Agriculture Sector | 1.55 | 0.00 |
| Service & manual work | 2.14 | 0.00 |

4.2.3 Women's exposure to government family planning program and use of modern contraception

Third research question related with find out the impact of women's exposure to government family planning program on their contraception behaviour. For the analysis the effect of government family program on women's contraceptive behaviour listened family planning program from radio, watched on TV and visited by family planning program field worker were select. Formulated hypotheses were suggested:

- Women who are listened radio about family planning program are more likely to use modern contraception.
- Women who are exposed to television family planning program are more likely to use modern contraception.
- Women who have ever visited by the family planning field worker are more likely to use modern contraception.

Table 4.8 states that among the selected government family planning program getting exposure to listen family planning program from radio was not significant while exposed to watch family planning program on TV and visited by family planning field worker both were statistically significant (at 0.05 significance level). Current contraceptive practice was 1.91 and 1.80 times respectively more likely among women who were exposed to watch family planning program on TV and exposed to visit by family planning field worker as compared to those not exposed. From the result above formulated research hypothesis last two were proved but first one was not proved.

Table 4.8 Result of the relation of place of residence, educational attainment, wealth index and women's occupation with women's use of modern contraception

| Exposure to FP program | Exp(B) | Sig. (0.05) |
|---|---------------|--------------------|
| Not exposed to Listen FP on Radio | Ref. | Ref. |
| Exposed to Listen FP on Radio | 1.07 | 0.44 |
| Not exposed to Watch FP on TV | | |
| Exposed to watch FP on TV | 1.91 | 0.00 |
| Not exposed to visit by FP field worker | | |
| Exposed to visit by FP field worker | 1.80 | 0.00 |

4.2.4 The result of effect of women's attitude towards contraceptive and subjective norms on women's use of modern contraception

In this study the fourth research question tried to find out the effect of women's attitude towards contraceptive and subjective norms on women's use of modern contraception. Table 4.9 reveals that among the selected variables subjective norms related both variables had insignificant but attitudes related both variables had significant effect on use of modern contraceptives. Thought, attitudes related both variables had overall significant effect when looking at as specific category there were not significant effect except some categories.

Table 4.9 Result of logistic regression the odds for the selected attitudes and subjective norms related variables on current use of modern contraceptive among currently married women

| Variables | Exp(B) | Sig.(0.05) |
|--|---------------|-------------------|
| Attitudes | | |
| Desire for more children | | |
| Wants within 2 years | Ref. | Ref. |
| Wants after 2+ years | 4.98 | 0.00 |
| Wants, unsure timing | 3.23 | 0.17 |
| Undecided | 1.21 | 0.75 |
| Wants no more | 7.46 | 0.00 |
| Ideal number of children | | |
| No ideal number | Ref. | Ref. |
| 1 child | 1.038 | 0.98 |
| 2 Children | 1.013 | 0.99 |
| 3 Children | 0.511 | 0.64 |
| 4 children | 0.379 | 0.50 |
| 5 children | 0.300 | 0.42 |
| 6+ above | 0.454 | 0.62 |
| Subjective norms | | |
| Contraception is woman's business, | | |
| Disagree | Ref. | 0.55 |
| Agree | 0.84 | Ref. |
| Sterilized women become promiscuous | | |
| Disagree | Ref. | 0.18 |
| Agree | 0.81 | Ref. |

From table 4.9 we can observe that women who were desired no more children and wanted more children after 2 + years had the odds of using modern contraception increased by factor 7.46 compared as those wanted more children within 2 years and both this categories had significant effect on use of modern contraception. But women who were wanted more children undecided and unsure timing had not statistically significant effect on use of modern contraception. In addition ideal number of children it had overall significant effect on use of modern contraception but as specific categories there were not statistically significant effect on use of modern contraception. Subjective norms related

both variables contraception is women's business and sterilized women become promiscuous had not statistically significance effect on use of modern contraception since both had odds of using modern contraception near 1 which indicate there were no effect on use of modern contraception.

4.2.5 Interaction effect of place of residence and educational attainment on women's contraceptive behaviour.

Research question five looked at the rural urban difference on the relationship between educational attainment and use of modern contraception. The hypothesis implied that urban women were more likely to use modern contraception and also have higher educational attainment than rural women. The result of cross tabulation on above table 4.5 showed higher percentage of urban women (59.7 percent) were used modern contraception compared as rural women it was only 48.8 percent. Similarly, women who were completed primary and secondary educational level they were more involved to practice modern contraception than those with no education. The chi-square showed that type of place of residence was significance but education was not.

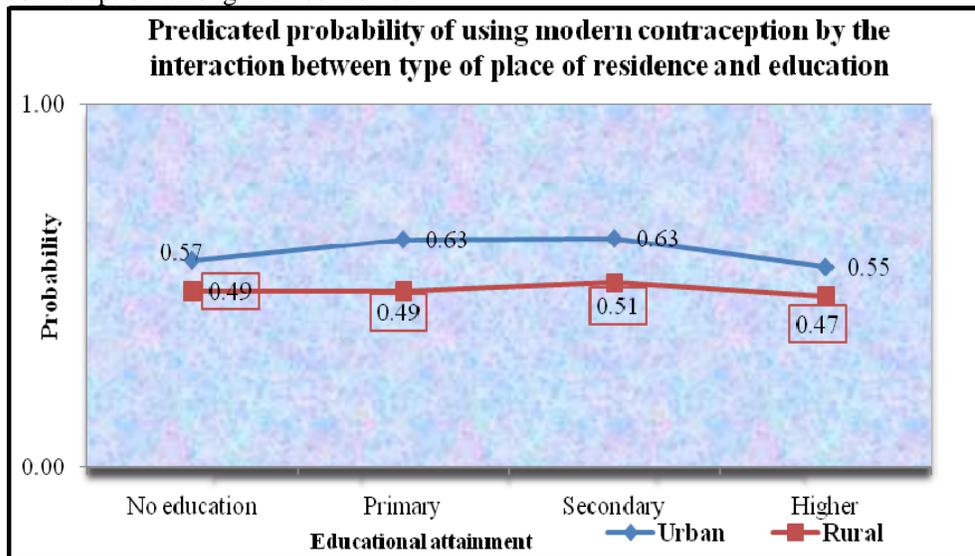
For the examining the interaction effect of education and place of residence on women's use of modern contraceptive use the logit transformation methods through binary logistic regression. The result from table 4.10 reveals that the place of residence had significance (P=0.01) effect on use of modern contraception whereas the effect of educational attainment and interaction between education and place of residence had not significance effect. The significance results were same as chi-square result.

Table 4.10 Interaction result of use of modern contraception by place of residence and educational attainment

| Characteristics | Coef.(B) | Sig. (0.05) |
|--|----------|-------------|
| Type of place of residence | | 0.01 |
| Urban | Ref. | |
| Rural | -0.35 | 0.01 |
| Highest educational level | | 0.46 |
| No education | Ref. | |
| Primary | 0.23 | 0.26 |
| Secondary | 0.25 | 0.20 |
| Higher | -0.07 | 0.81 |
| Interaction(Type of place of residence*urban) | | 0.79 |
| Rural*No education | Ref. | |
| Rural*Primary | -0.23 | 0.35 |
| Rural*Secondary | -0.15 | 0.54 |
| Rural*Higher | 0.03 | 0.96 |

The figure 4.3 shows that interaction effect of education on use of modern contraception by place of residence among married women. From the figure we can say women who were living urban area and having completed primary and secondary education the probability of using modern contraception was slightly higher as against those with no education and higher education. Moreover, women being rural residence and having secondary and higher education the probability of using modern contraception is slightly higher than those with no education and having primary education. Finally, the interaction effect of place of residence and education attainment on women's use of modern contraceptives there were not much difference in rural and urban area; the probability of using modern contraception was slightly higher in urban area in all educational level compared as rural area. From the analysis implied hypothesis weren't totally verified.

Figure 4.3 Result of logistic interaction of place of residence and education on use of modern contraception among married women.



4.2.6 Interaction effect of women’s occupation and age on use of modern contraception among currently married women

Research question Six tried to find out relationship between age group of women and using modern contraception differ by women’s occupational status. The result of cross tabulation above table 4.5 reveals that percent of using modern contraception increased from younger age group 15-19 to 35-39 age groups (20 to 67 percent respectively) thereafter it declined. According to women’s occupation higher percent of women 67.4 percent were using modern contraception who have service and manual work whereas 50 and 49.5 percent respectively women those with no work and agriculture work. The chi-square result showed both variables were significant.

For the examining the interaction effect of women’s age and occupational status on women’s use of modern contraceptive applied the logit transformation methods through binary logistic regression. The interaction result in table 4.11 shows that age of women was highly statistically significant the p value was 0.00 and women’s occupation and interaction between women’s age and occupation are also statistically significant their p value are 0.01 and 0.04 respectively at 0.05 level.

Table 4.11 Results of interaction effect of age and occupations of women’s on use of modern contraception

| Characteristics | Coef.(B) | Sig. (0.05) |
|---------------------------|----------|-------------|
| Age of women | | 0.00 |
| 15-19 | Ref. | |
| 20-24 | 1.24 | 0.00 |
| 25-29 | 1.20 | 0.01 |
| 30-34 | 1.72 | 0.00 |
| 35-39 | 2.12 | 0.00 |
| 40-44 | 2.30 | 0.00 |
| 44-49 | 2.08 | 0.00 |
| Women's occupation | | 0.01 |
| Not working | Ref. | |
| Agriculture Sector | -0.22 | 0.61 |
| Service & manual work | 2.08 | 0.01 |

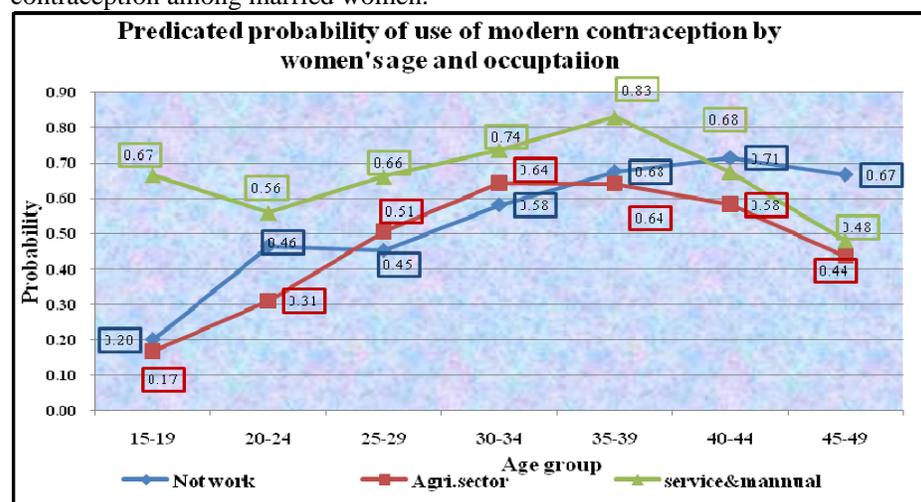
Table 4.11 continued....

| Characteristics | Coef.(B) | Sig.(0.05) |
|-------------------------------|----------|-------------|
| Age*women's occupation | | 0.04 |
| 15-19*agriculture sector | Ref. | |
| 20-24*agriculture sector | -0.44 | 0.37 |
| 25-29*agriculture sector | 0.43 | 0.38 |
| 30-34*agriculture sector | 0.48 | 0.38 |
| 35-39*agriculture sector | 0.06 | 0.91 |
| 40-44*agriculture sector | -0.37 | 0.55 |
| 44-49*agriculture sector | -0.73 | 0.21 |
| 15-19*service and manual | Ref. | |
| 20-24*service and manual | -1.70 | 0.05 |
| 25-29*service and manual | -1.22 | 0.16 |
| 30-34*service and manual | -1.38 | 0.13 |
| 35-39*service and manual | -1.23 | 0.20 |
| 40-44*service and manual | -2.26 | 0.02 |
| 44-49*service and manual | -2.85 | 0.00 |

Figure 4.4 shows that 35-39 age groups of women who were working in service and manual sector the probability of using modern contraception method were higher than other age group. Women who had agriculture sector work the predicated probability was increased as age of women until 30-34 age groups of women thereafter started decrease. But women who were with no work the predicated probability of using modern contraception was also increased as increases age of women except 25-29 age group. The interesting result was that predicated probability of using modern contraception was higher among younger women (15-19 age groups) who were with service and manual work compared as those with agriculture work and no work.

The predicated probability of using modern contraception was higher among the women who had service and manual work compared those had agriculture work and not work until age 35-39. The probability of using modern contraception was not much difference among women with not work and agriculture work.

Figure 4.4 Result of logistic interaction of women's age and occupation on use of modern contraception among married women.



4.2.7 The result of Interaction effect women’s wealth status and exposed to family planning program from TV on use of modern contraception among currently married women.

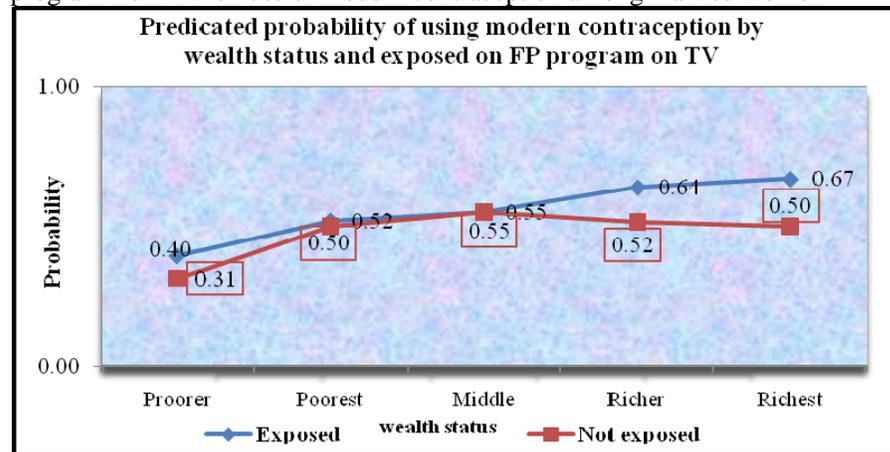
Research question seven looked into the relationship between women’s wealth status and use of modern contraception differ women’s exposure to family planning program on TV. For the examining the interaction effect of women’s wealth status and exposed to family planning program from TV on women’s use of modern contraceptive applied the logit transformation methods through binary logistic regression. The interaction result in table 4.12 demonstrates that the wealth status of women was statistically highly significant the p value was 0.00 whereas exposure to family planning program on TV and interaction effect of wealth status and exposure to family planning program on TV were not statistically significance value were 0.28 and 0.14 respectively at 0.05 level.

Table 4.12 Interaction result of women’s wealth status and exposure to FP program from TV on use of modern contraception

| Characteristics | Coef.(B) | Sig. (0.05) |
|-----------------------------------|----------|-------------|
| Wealth index | | 0.00 |
| Poorest | Ref. | |
| Poorer | 0.778 | 0.00 |
| Middle | 0.987 | 0.00 |
| Richer | 0.843 | 0.00 |
| Richest | 0.778 | 0.00 |
| Exposed on TV | | |
| Not heard FP on TV(Ref) | Ref. | |
| Heard FP on TV | 0.353 | 0.28 |
| wealth index*exposed on TV | | 0.14 |
| Poorest*heard FP on TV | Ref. | |
| Poorer*heard FP on TV | -0.27 | 0.52 |
| Middle*heard FP on TV | -0.36 | 0.36 |
| Richer*heard FP on TV | 0.16 | 0.66 |
| Richest*heard FP on TV | 0.36 | 0.37 |

The figure 4.4 result reveals that women who exposed to family planning program and with poorer, richer, and richest wealth status the probability of using modern contraception was higher compared those who were not exposed in same wealth status but women with poorest and middle wealth status the probability of using modern contraception was almost same among women those exposed and not exposed to family planning program on TV.

Figure 4.5 Result of logistic interaction of women’s wealth status and exposure to family planning program from TV on use of modern contraception among married women



4.3 The final logistic model with all predictor's variables

In the final model logistic regression includes all explanatory variables to predict effect of demographic, socio-economic, government family planning programme, attitudes towards contraceptive and subjective norms related variables on the use of modern contraceptive among currently married women through enter method. Initial logistic regression Model1 includes only demographic and socio-economic 6 variables (age group of women's, no of living children, type of place of residence, higher education level, wealth index, and women's occupation) in block 1. In Model 2 adds government family planning programs related 3 variables (Listen FP program from radio, listen FP on TV and visited by FP field worker) on Model 1 variables in block 2. The final Model 3 adds attitudes towards contraceptive and subjective norms related 4 variables (desire for more children, idle number of children, contraception is women's business, and sterilized women become promiscuous) on Model 2 variables in Block 3 . The result of the multivariate analysis with three models shows in the table 4.13.

Table 4.13 Result of odds on using modern contraception for selected explanatory variables among currently married women

| Characteristics | Model- 1 | | Model-2 | | Model-3 | |
|-----------------------------------|-------------|----------|-------------|----------|-------------|----------|
| | Sig(0.05) | Exp. (B) | Sig(0.05) | Exp. (B) | Sig(0.05) | Exp. (B) |
| 1. Demographic | 0.00 | | 0.00 | | 0.00 | |
| Age 5-year groups | | | | | | |
| 15-19 (Ref.) | | | | | | |
| 20-24 | 0.17 | 0.72 | 0.16 | 0.71 | 0.44 | 0.82 |
| 25-29 | 0.56 | 0.86 | 0.54 | 0.86 | 0.72 | 0.90 |
| 30-34 | 0.22 | 1.39 | 0.22 | 1.40 | 0.80 | 0.92 |
| 35-39 | 0.14 | 1.51 | 0.12 | 1.54 | 0.84 | 1.07 |
| 40-44 | 0.44 | 1.24 | 0.39 | 1.28 | 0.37 | 0.73 |
| 45-49 | 0.12 | 0.64 | 0.18 | 0.68 | 0.00 | 0.25 |
| Number of living children | 0.00 | | 0.00 | | 0.00 | |
| No children (Ref) | | | | | | |
| 1 Child | 0.00 | 6.65 | 0.00 | 6.49 | 0.00 | 4.94 |
| 2 Children | 0.00 | 17.94 | 0.00 | 17.27 | 0.00 | 9.35 |
| 3 Children | 0.00 | 26.07 | 0.00 | 25.26 | 0.00 | 12.63 |
| 4 and more children | 0.00 | 18.65 | 0.00 | 18.11 | 0.00 | 14.64 |
| 2. Socio- economic | | | | | | |
| Type of place of residence | | | | | | |
| Urban (Ref) | | | | | | |
| Rural | 0.18 | 0.85 | 0.26 | 0.88 | 0.42 | 0.89 |
| Highest educational level | 0.00 | | 0.02 | | 0.01 | |
| No education (Ref.) | | | | | | |
| Primary | 0.01 | 1.42 | 0.03 | 1.34 | 0.13 | 1.29 |
| Secondary | 0.00 | 1.71 | 0.00 | 1.56 | 0.00 | 1.82 |
| Higher | 0.51 | 1.23 | 0.84 | 1.07 | 0.71 | 1.14 |
| Wealth index | 0.00 | | 0.00 | | 0.01 | |
| Poorest (Ref.0) | | | | | | |
| Poorer | 0.00 | 2.30 | 0.00 | 2.28 | 0.00 | 1.71 |
| Middle | 0.00 | 2.84 | 0.00 | 2.69 | 0.00 | 1.87 |
| Richer | 0.00 | 3.02 | 0.00 | 2.56 | 0.01 | 1.68 |
| Richest | 0.00 | 3.53 | 0.00 | 2.72 | 0.02 | 1.84 |

Table 4.13 Continued.....

| Characteristics | Sig.(0.05) | Exp.(B) | Sig.(0.05) | Exp.(B) | Sig.(0.05) | Exp(B) |
|--|-------------------|----------------|-------------------|----------------|-------------------|---------------|
| Women's occupation | 0.02 | | 0.03 | | 0.00 | |
| Not working (Ref.) | | | | | | |
| Agriculture Sector | 0.12 | 1.26 | 0.11 | 1.27 | 0.87 | 1.03 |
| Service & manual work | 0.01 | 1.64 | 0.01 | 1.60 | 0.00 | 1.94 |
| 3. Exposure to FP program | | | | | | |
| Not listen from radio(Ref.) | | | | | | |
| Listen FP from Radio | | | 0.35 | 1.10 | 0.01 | 1.45 |
| Not heard FP on TV(Ref) | | | | | | |
| Heard FP on TV | | | 0.00 | 1.57 | 0.06 | 1.32 |
| Not visited by Fp field worker(Ref.) | | | | | | |
| Visited by FP worker | | | 0.00 | 1.58 | 0.00 | 2.85 |
| 4. Attitudes | | | | | | |
| Desire for more children | | | | | 0.00 | |
| Wants within 2 years | | | | | | |
| Wants after 2+ years | | | | | 0.00 | 4.05 |
| Wants, unsure timing | | | | | 0.18 | 3.63 |
| Undecided | | | | | 0.30 | 0.53 |
| Wants no more | | | | | 0.00 | 2.70 |
| Ideal number of children | | | | | 0.01 | |
| No ideal number | | | | | | |
| 1 child | | | | | 0.69 | 0.57 |
| 2 Children | | | | | 0.56 | 0.43 |
| 3 Children | | | | | 0.35 | 0.26 |
| 4 children | | | | | 0.31 | 0.23 |
| 5 children | | | | | 0.25 | 0.17 |
| 6+ above | | | | | 0.49 | 0.33 |
| 5. Subjective norms | | | | | | |
| Contraception is woman's business, | | | | | 0.58 | |
| Disagree | | | | | | |
| Agree | | | | | 0.30 | 0.83 |
| Sterilized women become promiscuous | | | | | 0.82 | |
| Disagree | | | | | | |
| Agree | | | | | 0.52 | 0.91 |

In table 4.13 the initial logistic Model 1 reveals the net effect of the demographic and socio-economic factors on women’s contraception behaviour. We already know from the result of above table 4.6 both demographic variables age of women and number of living children were statistically significant but age of women overall effect was significant and age specific on use of modern contraception were not significance except age group 35-39 whereas number of living of children found have strong effect on use of modern contraception. Similarly, the table 4.13 in model 1 shows demographic both variables women’s age and number of living children were still had significant effect (p- value 0.00, and 0.00 respectively at 0.05 level) on use of modern contraception and there was overall significant effect of age of women on use of modern contraception and specific age group didn’t have significant effect. In addition, the numbers of living children found to have a strong effect on use of modern contraception. The odds of using modern contraception was rapidly increases as increases with any number of living

children same as like result of table 4.6 In regards socio- economic factors above table 4.7 results only with socio-economic variables showed that highest educational level and place of residence were not statistically significant and only wealth index and women occupation were highly significant. But table 4.13 Model 1 shows that all socio-economic variables are significant except place of residence. The wealth index found to have strong effect on use of modern contraception. Contraception practice was estimated to be increased by factor 1.26 and 1.64 respectively among women of working in agriculture and service and manual sector compared to those with no work.

Model 2 shows the effect of the demographic, socio-economic and programmatic c factors on use of modern contraception. Regarding the demographic variables the result the shows the somehow same results like as model 1. Result from table 4.13 model 2 explains women's education, occupation and wealth status were still statistically significance and place of residence still insignificance and it can be seen from model 2 wealth index still found to have strong effect on use of modern contraception. In addition, result reveals that women's with secondary education were 1.56 times more likely to use of modern contraception than those with no education. The effect on use of modern contraception women who engaged as working in agriculture sector and service and manual sector were 1.27 and 1.60 times respectively higher than those not working. Similarly, the higher the level of women's wealth status was the higher practice of use of modern contraception as like result of model. Result of multivariate analysis related programmatic variables on model 2 demonstrates that women exposed to family planning program from radio was statistically insignificant while exposed to watched family planning program on TV and visited by family planning field worker were statistically significance as like the above result of table 4.8 only with programmatic variables. The result of table 4.13 model 2 also shows that women who were exposed to watch family planning program on TV and visited by family planning field worker 1.57 and 1.58 times respectively more likely to use modern contraception as against those who were not exposed at all.

In model 3 attitudes and subjective norms related 4 more variables have been added on model 2. The result of model 3 shows that the demographic both variables still statistically significant as like model-2. Regarding to socio-economic variables education, and women's occupation had significant effect on use of modern contraception and wealth status still to have strong effect on use of modern contraception but type of place of residence still found as insignificance explanatory variables as like result of model-2. In regards programmatic factors model-3 result reveals that women who exposed to government family planning program they were more likely to use of modern contraception than those who weren't expose. Visited by family planning field worker was highly statistically significance than other two programs. Moreover, attitudes regards two variables desire for more children, and ideal number of children were significantly associated with the use of modern contraception whereas subjective norms related both explanatory variables (contraception's is women's business, and sterilized women become promiscuous) were not significantly associated with the use of modern contraception as like the table 4.9 result only with attitudes and subjective norms related variables. Moreover, women who desire for more children wants after 2 +above years and wants no more were 4.05, and 2.7 times respectively more likely to use modern contraception compared as those wants within 2 years and also these two categories were statistically significance. Another explanatory variables ideal number of children had overall significance effect on use of modern contraception when looking at specific ideal number of children like 1, 2, 3 4, 5 and 6 above children they were not significant.

4.4. Discussions of the results

In this study, the effect of selected independent variables (demographic, socio-economic, programmatic, attitudes and subjective norms related variables) on dependent variable (use of modern contraception) has been examined. In the following section demonstrates the discussion of the results with the relevant previous research results.

The result of analysis regards demographic factors overall age of women had statistically significant effect on use of modern contraception but looking at the specific age group of women there were not

significant effect. Increase use of modern contraceptive as increases age of women until age 35-39 afterwards start decrease. Women who were with age between 30-39 were more likely to use modern contraception than 15-19 age group. Number of living children found as to have strong effect on use of modern contraception. Women with one child were 5 times more likely to use of modern contraception than those with no living children. Similarly, women with 3 children were 13 times more likely to use of modern contraceptives compared as those with no living children. This result indicates that women will use modern contraception while they meet their desire number of living children. This study result regards demographic factors similar to the result of Tuladhar (1985), determinants of contraceptive use in Nepal; result showed that use of contraception was directly related to number of living children and age of women. And another study Chacko E.(2001), which results revealed that women's age, number of living children, and women's religions were main influenced factors.

Regarding to socio- economic factors the multivariate analysis result of this study revealed that wealth status of women and women's occupation were found to have strong effect on use of modern contraceptives. Women's participation to use of modern contraception was increased as increases their wealth status. Women with poorer and middle wealth status were 2 and 3 times respectively more likely to use of modern contraception versus those who were in poorer wealth status. Similarly women with richer and richest position were 3 times more likely to use of modern contraception compared as those with poorer wealth status. This study confirmed the stated hypothesis that women with higher wealth status were more likely to use of modern contraception than those with lower wealth status. In addition the odds of modern contraception was increased by 2.14 factors among women's who were working in service and manual sector compared those with no work. Women occupational status has significant effect on use of modern contraception followed by women's age. The predicated probability of using modern contraception was higher among the women who had service and manual work compared those had agriculture work and no work. The interesting result was that predicated probability of using modern contraception was higher among younger women (15-19 age groups) who were with service and manual work compared as those with agriculture work and no work. It could be due to postpone of their childbearing age. The result indicates that women will more motivate to use modern contraception while they are involved in service and manual sector work. The result confirmed the implied hypothesis that was working women were more likely to use of modern contraception than women without work.

The result regards with women's educational attainment had overall statistically significant effect on use of modern contraception with all explanatory variables. The result explained that the women with higher education the effect of using modern contraceptive was slightly higher there were not much differences according to educational status. Women with primary education and secondary education were 1.29 and 1.82 times respectively more likely to use of modern contraception than women with no formal education. It could be women who had higher education they want to postpone their birth for further carrier development and they could understand about importance of small family size. The effect of place of residence was not significant even followed by educational attainment. The result shows that the probability of using modern contraception was slightly higher in urban area in all educational level compared as rural area. Women's use of modern contraceptives there were not much difference in rural and urban area. These findings are somewhat similar to the study of Ghana and Nepal. According to Tuladhar (1985), the prevalence of contraception was higher in urban women than rural in Nepal. Similarly another study about factor affecting contraceptive in Ghana showed that women with higher education were three times more likely to current use contraception than those with no education. Similarly, urban women were 2 times more likely to use modern contraception than rural (Tawiah E.O. 1997).

Regarding the effect of government family planning programs on use of modern contraception result showed that women's visited by family planning field worker has highly statistical significant effect and exposed on TV has also significant effect but exposed on Radio doesn't have significant effect on use of modern contraception. Women who were visited by family planning field worker were three times more likely to use modern contraception against those not exposed. This result suggested that

family planning field worker could be effective programme for increasing on practice of contraception among married women. Because family planning field worker could meet direct face to face and give all require information to women. Regards mass media exposure women who were exposed to listen family planning program on TV were more likely to use modern contraception since the odd of using modern contraception was increased by 1.32 factors among women who were exposed on TV. Similarly result reveals that the probability of using modern contraception was higher among women who exposed to family planning program and their wealth status were richer, and richest against those not exposed and poorest wealth status. But Radio doesn't have significant effect on use of modern contraception.

The result clearly shows that the significant association between use of modern contraception and women's attitudes towards contraception and women's desire for more children found as have strong while subjective norms related both variables (contraception is women's business and sterilised women become promiscuous) found as statistically insignificant. Women who wanted more children after 2 + years were 4 times more likely to use modern contraception than those who desire more children within 2 years. This result indicates the importance birth spacing and for motivating to use modern contraception family planning program should educate women at least 2 years birth spacing. This study result supported the stated hypothesis which was omen who desired to have more children within 2 years have negative effect on use of modern contraception. This result somewhat similar to the result of Delhi 2008 where result showed that desire for more children and son preference were the main influenced factors for not using any contraceptives and they were scared of side effects and health problem (Kumar et al. 2008).

Chapter 5

Summary, conclusion and recommendations

This chapter provides the conclusions and recommendations in two sections. The first section provides the summary of the results shortly with the research objective, data and methods while section reveals the recommendations for the policy implication and further research.

5.1 Summary of the results

The main objective of this study was to determine demographic and socioeconomic factors influencing, and the impact of government family planning programmes on the current use of modern contraceptive methods among currently married women age 15-49 in Nepal. The research also wants to examine influence of attitude and subjective norms on current use of modern contraceptive methods among currently married women age 15-49 in Nepal. The data were derived from the Nepal Demographic Health Survey 2006 and used couple data file set. A binary logistic regression applied for analysis. Four major independent factors were examined including demographic (age, no of living children), socio-economic (type of place of residence, education, wealth status and occupation), Government family planning program (exposure on family planning program from radio TV and visited by family planning field worker), attitudes and subjective norms (desire for more children, ideal number of children, contraception is women business and sterilised women become promiscuous).

The respondents were 2600 currently married women who are living with their partner and their mean age was 31.93 years. It found that 51 percent were using modern contraception more than 50 percent had 3 and more children. 74 percent currently married women were living in urban area and highest proportion of women were uneducated that was 65 percent. More women 76 percent worked in agriculture sector. Highest percent of women (68 percent) had exposure on radio family planning program while only 35 and 12 percent respectively get exposure family program on TV and visited by family planning field worker.

The binary logistic regression results revealed that most of the independent variables have statistically significant effect on use of modern contraception those were under taken into analysis. Women's age have significant effect on use of modern contraception. The result showed that increase use of modern contraceptive as increases age of women until age 35-39 afterwards started decreased and this is probably due to women could have perception of low risk of pregnancy in older age. Implied hypothesis that was increases age of women had negative influenced on women's use of modern contraception was not totally accepted. In addition, number of living children had strong effect on use of modern contraception and women who were with two children were 9 times more likely to use of modern contraception against those with no child. It might be cause of Nepali women their ideal number of children could be 2 to 4 since total fertility rate is 3.1.

The result also revealed that among the selected socio-economic factors education, wealth status, and occupations were found as statistically significant while type of place of residence was insignificant. Women's with primary, secondary, and higher education were more likely to use modern contraception than those with no formal education and stated hypothesis that was higher education level of women has positive influences on use of contraception was accepted. This is probably women with formal education could get more information about contraception and able to understand the importance of small family size. The result clearly indicates that the wealth status has positive and strong effect on use of modern contraception. The odds ratio of using modern contraception was increased as increases wealth status of women poorer to richest and implied hypothesis was supported by this study result that was 'women with higher economic status are more likely to use of contraception than women with lower economic status'. Similarly, women who were working in service and manual sector were two times more likely to use modern contraception. The implied hypotheses were accepted that was: 'working women are more likely to use of modern contraception than women without work. And also women's occupation has positive effect on use of modern

contraception followed by women's age groups. The result showed that predicated probability of using modern contraception was higher and increases as age increases among the women who had service and manual work compared those had agriculture work and not work until age 40-44. The probability of using modern contraception was not much difference among women with not work and agriculture work. The implied hypotheses was; women who are working in service', and 'manual sector are more likely to use modern contraception and also increase the use of modern contraception increases as their age' The interesting result was that predicated probability of using modern contraception was higher among younger women (15-19 age groups) who were with service and manual work compared as those with agriculture work and no work. Probably working women are more independent and they want to postpone their childbearing age. It was strange result; the use of modern contraception was not much differing by urban and rural place of residence even followed by educational attainment. The probability of using modern contraception was slightly higher in urban area in all educational level compared as rural area. From the analysis implied hypothesis weren't totally verified.

The study found the statistically significant association between the use of modern contraception and exposure to family planning program on TV and visited by family planning program field worker but exposure on radio was not significant. Women who had exposure to listen family planning program on TV and visited by family planning program field worker were 1.32 and 3 times respectively more likely to use modern contraception compared those not exposed. In the analysis the implied hypothesis were accepted that were; 'women who are exposed to television family planning program are more likely to use modern contraception', and 'women who have ever visited by the family planning field worker are more likely to use modern contraception'. Similarly result also reveals that the probability of using modern contraception was higher among women who exposed to family planning program on TV and their wealth status were richer, and richest against those not exposed and poorest wealth status. And implied hypothesis that was; women who exposed family planning program on TV have higher chance to use modern contraception and also with higher wealth status was partially accepted. Women exposure to radio didn't have any significant effect on use of modern contraception. Probably it might be women who were visited by field worker could get more detail information face to face and from TV they could watch by visualised.

Regards to the attitudes and subjective norms related results showed that attitude related both variables desire for more children and ideal numbers of children have significant effect on use of modern contraception while subjective norms related both variables were insignificant. Women who wanted more children after 2 + years were 4 times more likely to use modern contraception than those who desire more children within 2 years. Here result suggested that it is needed to educate about birth spacing. But here it has to inform in this study there were limitation of the lack of and appropriate information about attitudes and subjective norms in Demography Health Survey 2006. So from this study it is injustice to conclude about effect of attitude and subjective norms on use of modern contraception. Though, based on the selected analysis we can say women's attitudes towards contraception have significant effect on use of modern contraceptives than their subjective norms.

In sum this study result indicates that the number of living children, wealth status, and visited by family planning field worker found to have strong effect on use of modern contraception and age of women, educational attainment, women's occupation, exposure on TV, desire for more children and ideal number of children had also statistically significant effect on use of modern contraception. So that, we can say, educate to women about importance of small family size, birth spacing, and expanding the government family planning program visited by family planning field worker could be strong step for further increasing the women's participation on contraception use. A more immediate benefit could be enhanced education for girls could create entering service and manual sector job for them and which could be support to use contraception.

5.2 Recommendations

In this section based on the result of this study make recommendations for policy implications and further study on the field of use of modern contraception among women in Nepal.

5.2.1 Recommendations for policy

Based on the findings of this study we can draw some policy recommendations that could be useful for better family planning program to promote modern contraception use among married women in Nepal are as follows:

- The result clearly showed that the use of modern contraception was increased as age increases women age except age 40-49. So the family planning program should focus on the younger age group of women since in Nepal the median age of marriage is 19.5 years (NDHS, 2006) and marriage is an important cultural system.
- The study findings indicates women who were with better education (primary, secondary and higher), higher wealth status, and service and manual sector work were had higher practice of modern contraception than those with no education, low wealth status, agriculture work and no work. Therefore, Family planning program should be giving priority to the women those who are with low wealth status, no education, agriculture and without any work. Since in Nepal most of the women are illiterate and working in agriculture sector.
- Among the government family planning program the visited by family planning field workers played a significant role in increasing modern contraception use among currently married women. Family planning field worker can meet women directly and can discuss about family planning relevant issue even with couple. Therefore government should be strongly focused on this program with more trainer and skilful fieldworker.
- Family planning program from mass media the television plays an effective role to promote use of modern contraception among women. Hence, the family planning program should be extended by using appropriate channels and on appropriate audience time. The family planning programmes messages should be translated into local language.
- The study shows that the desire for more children after 2+ years and higher number of ideal number of children had negative effect on use of modern contraception. So, family planning program should be focused on the important of small family size and appropriate family size.

5.2.2 Recommendations for future study

- In this study the data that was taken secondary data from Nepal Demographic Health Survey (2006). There were some limitation to select some variables that was though effect the modern contraceptive use among married women in Nepal for example family structure, social and cultural norms, household decision making process, husband wife communication process etc. On the other hand in the Nepal Demographic Health Survey 2006 there is lack of the subjective norms, attitude, and perception related depth information. Further research could cover these aspects.
- In order to give an in-depth understanding and information about the determinants factors of married women's use of modern contraception especially in the field of couple attitudes towards contraception, subjective norms and intention related information further qualitative research are needed.

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