MALE PARTICIPATION IN SAFE MOTHERHOOD IN TAPLEJUNG DISTRICT

Submitted by
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RECOMMENDATION

This is to certify that the dissertation entitled **"Male Participation in Safe Motherhood : A Study of Phulbari VDC, Taplejung District"** is an independent work of Mr. Chandra Prasad Adhikari, completed under my supervision as a partial fulfillment for the requirement for the Master's Degree of Arts in Population Studies. To the best of my knowledge, the study is original and stands on primary database. Therefore, I recommend this dissertation to the Evaluation Committee for the final approval and acceptance.

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ABSTRACT

The main purpose of this study is to examine the role of male during the pregnancy and delivery period and to examine the knowledge about ANC, DC and PNC in reproductive age (15-49)of women in Phulbari VDC. The study entitled **"Male Participation in Safe Motherhood : A Study of Phulbari VDC, Taplejung District"** has been carried out using primary sources of data obtained from 160 respondents in reproductive age group of women who have experienced at least single delivery within five years. The quantitative method is used for data collection. There are 160 households, from each household only one respondent was enumerated by using purposive sampling method. In the study area, there are nine wards; these nine wards in the VDC were divided into five clusters according to human settlements. Cluster 2 and 3 were selected by using lottery method for the study. Among the 160 target population 100 respondents were included in cluster number 2 and 60 in cluster number 3. In total, 160 households and 160 respondents were enumerated.

- Among the 160 respondents, 68 percent are literate and 32 percent are illiterate.
- Out of 160 husbands, 82 percent are literate and only 18 percent are illiterate.
- Out of 160 respondents 81 (51 percent) respondents have knowledge about safe motherhood. Among them 48 percent respondents heard about safe motherhood through health workers and 37 percent through radio.
- In total numbers of 160 respondents, 99 (62 percent) respondents have taken ANC service; out of them 61 percent respondents are encouraged by their husband and 39 percent by neighbors to take ANC service.
- Out of 160 respondents, 64 percent have delivered at home and 36 percent have delivered at health centre (Hospital, heath post, private clinic).
- Out of 160 respondents, 77 (48 percent) respondents received postnatal checkup. Most of them are receiving PNC service from health post and sub-health post (34 and 42 percent) respectively.
- Out of 160 respondents, 80 (50 percent) respondents have received PNC service within 6 weeks (42 days), most of them 56 (35 percent) have received 3 times PNC service.
- Out of the 160 respondents, 157 (98 percent) respondents have received support from their male member of household to manage money and to conduct daily work during the pregnancy and delivery period.
- Out of 157 respondents most of the 84 percent husbands were stayed at home with their women during pregnancy and delivery period.

ABBREVIATIONS

AHW	=	Assistant Health Worker
AIDS	=	Acquired Immune Deficiency Syndrome
ANC	=	Antenatal Care
CEB	=	Children Ever Born
DC	=	Delivery Care
DFID	=	Department for International Development
EOC	=	Emergency Obstetric Care
FCHV	=	Female Community Health Volunteer
GoN	=	Government of Nepal
GTZ	=	German Technical Cooperation
HA	=	Health Assistant
HIV	=	Human Immune Virus
HMG	=	His Majesty's Government
HP	=	Health Post
ICPD	=	International Conference on Population and Development
IEC	=	Information, Education and Communication
INGOs	=	International Non-Governmental Organizations
MDGs	=	Millennium Development Goals
MMR	=	Maternal Mortality Ratio
MOH	=	Ministry of Health
MoHP	=	Ministry of Health and Population
NDHS	=	Nepal Demographic Health Survey
NGOs	=	Non Governmental Organizations
NSMPA	=	National Safe Motherhood Plan of Action
PHCC	=	Primary Health Care Centre
PNC	=	Postnatal Care
RHDs	=	Regional Health Directorates
SBA	=	Skilled Birth Attendant
SHP	=	Sub Health Post
SM	=	Safe Motherhood
SMI	=	Safe Motherhood Initiative
SMNHLTP	=	Safe Motherhood and Neonatal Health Long Term Plan
SSMP	=	Support for Safer Motherhood Program
TBA	=	Trained Birth Attendant
TT	=	Tetanus Toxoid
UNFPA	=	United Nations Population Fund
UNICEF	=	United Nations Children's Fund
WHO	=	World Health Organization

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CHAPTER 1

INTRODUCTION

Safe motherhood is fundamentally a matter of human rights; all women are entitled to good health and high-quality health services. Maternal deaths are linked to women's low status in society, and their lack of decision-making ability and economic power. In order for women to be able to enjoy safe pregnancy outcomes, they need to be accorded the same opportunities to health, education, and employment as their male counterparts (FCI, 2005 : 7). In this context, the thesis entitled -"Male Participation in Safe Motherhood" examines the role of male participation in the period of pregnant women of reproductive age (15-49 years) group of women at Phulbari VDC in Taplejung District. In the light of the discussion, the chapter deals with issues of knowledge of currently married women on safe motherhood and the support extended by male in a household, followed by developing objectives, data and method, and significance of the study.

1.2 Background of the Study

Safe Motherhood (SM) is the essential component of reproductive health. It is related to age group of reproductive women (15-49). SM is the burning issue in the 21st century. Safe delivery services are the most important for pregnant women. It refers to the place of delivery either health post or hospital under doctors, Health Assistants (HA), Assistant Health Worker (AHW) or midwife, Trained Birth Attendant (TBA). This protects the life and health of the mother and her child by ensuring the delivery of baby safely. The safe delivery services can be accessed to reduce the health risk to mother and children. SM is concerned to the women's health and period of gestations. There are three stages of safe motherhood : i. Antenatal care, ii. Delivery care, and iii. Post natal care.

Although a decade has now passed since the launching of the Safe Motherhood Initiative, maternal mortality continues to be the health Indicator showing the greatest disparity between developed and developing countries. Recently revised WHO and UNICEF figures indicate that an estimated 90% of the 585,000 worldwide maternal deaths that occur each year take place in sub-Saharan Africa and Asia. In terms of the lifetime risk of maternal death, this disparity remains striking:1 in 12 women in parts of sub-Saharan Africa, compared with 1 in 4,000 women in Northern Europe. In addition, for every woman who dies, an estimated 16-17 will suffer from pregnancy-related complications. Research

suggests that, in addition to biomedical interventions and the strengthening of health care services, improving awareness of obstetric complications among members of a pregnant woman's immediate and wider social network is an important step in improving her chances of survival when such complications occur. Many of the interventions implemented so far have focused exclusively on improving women's knowledge and practices as they relate to maternal health issues. Nevertheless, it is now increasingly being recognized that the actions required to achieve improvements in reproductive health outcomes in general, and maternal health in particular, should involve communities in the process and encourage men's active participation (Roth and Mbizvo, 2001 : 10).

Due to the high level of fertility and low level of health care during the delivery and antenatal care maternal mortality in Nepal is one of the highest in the world. Though many socio-economic and demographic factors contribute to the maternal health care. One of the most important factors is the utilization of safe motherhood services. This may include receiving TT-vaccination, vitamin 'A' and iron tablets, delivery assistance, use of clean delivery kits and care until six weeks after the delivery (Palikhe, 2002).

The 2007 Interim Constitution of Nepal declared for the first time that health is a basic human right with the state having responsibility for it. The health sector consists of three main groups of providers: public sector, private sector (for profit) and NGO sector (not for profit). The Ministry of Health and Population (MoHP) has overall responsibility for health care delivery in the public sector. It executes this responsibility through Regional Health Directorates (RHDs) and District Health Offices, supported by Hospital Development Committees, District and Village Development Committees (DDCs and VDCs) and municipalities. Publicly funded health services are delivered in central, regional and sub-regional, zonal and district hospitals, primary health care centers (PHCCs), health posts (HPs) and sub-health posts (SHPs). The role and importance of the private (for profit) sector have expanded significantly after the 1990s. There are numerous doctor’s offices, private clinics, small hospitals, and nursing homes, mainly in urban areas. NGOs are increasingly supporting government health services, both by implementing community-based programs and by managing health facilities.

The National Safe Motherhood Plan (2002-2007) has been revised, with extensive partner participation and the revised Safe Motherhood and Neonatal Health Long Term Plan (SMNHLTP 2006-2007) includes recognition of the importance of addressing neonatal health as an integral part of safe motherhood program. The policy for skilled birth attendants; health sector reform initiatives,

legalization of abortion and the integration of safe abortion services under the safe motherhood umbrella, addressing the increasing problem of mother to child transmission of HIV/AIDS, and recognition of the importance of equity and access efforts to ensure that most needy women can access the services they need (MOHP, 2007).

By knowing the importance of safe motherhood world observed the population day of 2007 by advocating on maternal health. The slogan of world was "Men as partner in Maternal Health" in UNFPA, 2007. Women are the partners of men in life for all four achievements of Dharma, Artha, Kaama, and Mokshya in oriental culture (Acharya, 2007). ICPD, 1994, most of the develop and developing countries are serious about the reproductive and safe motherhood. MDGs also focuses on the status of women's health and to reduce maternal mortality. Improving the health status of reproductive age (15-49). Women, the government of Nepal introduced free delivery services in all district hospitals, Primary Health Care Centers (PHCC), Health Post (HP) and Sub Health Post (SHP). "The government has introduced the program so that no body would die to unaffordable Service".

Most of the developing countries, the decision in reproductive matter is associated mostly with male persons especially the husband but limited access to Information, Education and Communication (IEC) and patriarchal, religious and cultural beliefs, males are not fully involved in reproductive care and safe motherhood. Even the women themselves ignore the health problem until it seriously affects their ability. Health education and communication strategies to raise awareness of reproductive health issues should target subgroups of men according to their various roles within the community. This includes males from the adolescent years (Roth and Mbizvo, 2001 : 14).

Partnering with men is an important strategy for advancing reproductive health and rights, which are so closely linked to the MDGs. While men's partnership is not explicitly mentioned in the MDGs, it is essential to progress, in particular in goals 3, 5, and 6 which are namely as, promotion of gender equality and empowerment of women, improvement in maternal health and combating HIV/AIDS, malaria and other diseases respectively (Pathak, 2007 : 5).

As a practical matter, men exercise more power across all areas of public and private life. Their cooperation is essential not only in the domestic and community spheres, but also in the wider area of national politics, finance and governance. Gender equality, and the social transformation it implies, is most

likely to be achieved when men recognize that the lives of men and women are interdependent and that the empowerment of women benefit and everyone (Pathak, 2007). SM and maternal health can be achieved by providing high quality maternal health services to all women during pregnancy, child birth and at the postpartum period. Safe motherhood aims to develop quality maternity can to reduce maternal mortality and neonatal mortality. Maternal, mortality and morbidity is one of the strong index of country's level and achievement.

The global experience shows that all pregnancies are at risk and complications during pregnancy, delivery and postnatal. So that maternal deaths are difficult to predict. Experience also showed that the avoidance of the three delays was imperative to achieve of the goal of reducing maternal mortality. These delay included delay in seeking care, delay in reaching care and delay in receiving care (Annual Report, 2005).

The male participation in safe motherhood determines the conditions of women extensively. There is interplay of conglomeration of socio-economic as well as demographic variables. The paucity of optimal state of antenatal care and postnatal care might be the influence of several variables to determine role of male for an enhancement of variables safe motherhood condition SM is defined as the care of mother during pregnancy, delivery and after delivery and also the care of new born,. Its aims to reduce maternal mortality and neonatal mortality.

1.2 Statement of the Problem

Despite ICPD's call for an increased participation of men in all areas of reproduction and family formation, few studies or interventions have addressed the role of men with regard to maternal health specifically. Instead, many of the institutions working in developing country settings have focused their efforts on increasing men's participation in reproductive health as it relates to decision-making in family planning only. As a result of this latter type of interventions, men's role as contraceptors themselves and their ability to affect their partner's contraceptive choices in negative as well as positive ways is increasingly becoming a central issue in current discussions of how gender relations influence reproductive health outcomes. Although efforts to involve men in reproductive health through family planning have resulted in their increased knowledge about contraception as well as their partner's contraceptive use in some instances, there remains little community-based data on the extent to which men are aware of the factors associated with maternal morbidity and mortality or are encouraged to share responsibility in community based solutions to improve maternal health (Roth and Mbizvo, 2001 : 14).

Home place of natural beauty, Nepal has 2,75,04,280 population and annual growth rate is 2.25% (CBS, 2009). Nepal is far behind from infrastructural development due to geographical complexities. Because of those complexities the government is not been able to provide effective programs on safe motherhood to the remote part of the country.

United Nations Millennium Declaration in September 2000 committed to reaching Millennium Development Goals 4 and 5, on child mortality and maternal health. The original targets for these goals were a two-thirds reduction in the mortality of children under 5 and a three-quarters reduction in the maternal mortality ratio between 1990 and 2015

In Nepalese context, the second long-term health plan (1997-2017) aims at improving health status of the people, particularly those whose health needs are often not met; the most vulnerable groups, women and children, the rural population, the poor, the underprivileged and the marginalized. It emphasizes on assuring equitable access by extending quality essential health care services with full community participation and gender sensitivity by technically competent and socially responsible health personnel throughout the country (MoHP, 2009).

Women continue to die both in the community and within health care facilities as a result of complications related to pregnancy. As the paucity of existing literature on men's participation in women's reproductive health suggests, there is a need for broadening strategies. The development and implementation of strategies that specifically target men in their various roles in the community might be one way of addressing the continuing tragedy of maternal deaths. These interventions, such as health education materials and community mobilization campaigns, should aim to sensitize men on the risk factors and danger signs associated with poor maternal health outcomes and mobilize them to respond appropriately. It is anticipated that these interventions will result in men taking more interest in the health-care seeking behavior of women during and following pregnancy.

The proposed study area Phulbari VDC comprises high level of maternal mortality and child mortality. Most of the people are non-users of contraception, they prefer son to daughter, which in turn result higher fertility. The problem in practicing safe motherhood is due to bad cultural practices. Poverty is associated

with the unwanted pregnancy and such pregnancies get less antenatal care (ANC), Delivery Care (DC) and Postnatal Care (PNC). Lack of health facilities for the women of reproductive age (15-49) is the main cause of maternal deaths. Another problem of the study area is dearth of communication and transportation and other infrastructural development. While a pregnant women have to the family need to rush for three hours on foot to get skilled birth attendant service delivery points.

The male participation in safe motherhood is determined by various factors such as socio-economic, demographic, religious and cultural as well as other factor. There is still the dearth of research on the male participation is safe motherhood at the national, regional, district and community level. In the study area, there is rare community focused special research found in the area of safe motherhood. Therefore, this research may be the basis for future study in male participation in safe motherhood of Phulbari VDC. The study will try to fulfill some gap in research work regarding this matter in the study area.

1.3 Objectives of the Study

- To examine knowledge about antenatal care, delivery care, and postnatal care among currently married women of reproductive age (15-49).
- To examine the household support extended by male during pregnancy and delivery.

1.4 Significance of the Study

Male participation in safe motherhood is one of the most important factor to reduce maternal mortality. The ICPD also identified the importance of male participation in safe motherhood. The study would be able to illustrate the scenario in rural areas in safe motherhood knowledge and practices. This study would also be applicable for policy making and formulating the operational programs in grassroots to improve the safe motherhood condition of poor and powerless women in Nepal.

1.5 Limitation of the Study

- The field survey was mainly focused on the study of knowledge about safe motherhood in Phulbari VDC, Taplejung district of Nepal. The findings of this study may not be applicable to other parts of the country. Results may not be generalized.

- The field survey was mainly focused to currently married women of reproductive age 15-49 years, who have experience of a live birth, five years preceding the survey.
- The findings of this study did not represent to the other parts of the country and respondents.
- In this study the component of ANC include TT immunization, Vitamin 'A' and iron tablets; DC include money manage, hygienic place and transportation; and PNC include physical checkup, nutrition, breastfeeding.

CHAPTER 2

LITERATURE REVIEW

The first chapter discussed the issues of study including objectives. This chapter reviews the theories which have already have studied. For this purpose, this section is divided into three parts: theoretical, empirical and conceptual.

2.1: Theoretical Review

Each year, more than half a million women die during pregnancy and childbirth—making pregnancy-related complications among the greatest killers of women of reproductive age in developing countries. Of all the health data monitored by the World Health Organization, maternal mortality demonstrates the greatest disparity between poor and rich countries: the lifetime risk of a woman dying during pregnancy or childbirth is much higher in the poorest countries than in the richest (one in 12 for women in east Africa compared with one in 4,000 in northern Europe). Within countries, poor, uneducated, and rural women suffer disproportionately compared to their educated, wealthy, and urban counterparts: in Kenya, for example, just over 23% of women in the lowest wealth quintile have access to skilled assistance during childbirth, while almost 78% of women in the highest wealth quintile are attended by a doctor or a nurse/midwife. Urban–rural differences also affect whether a woman receives adequate care during pregnancy and childbirth: in Peru, over 80% of urban women have a skilled provider attend their delivery, whereas less than 20% of rural women receive such care (FCI, 2005 : 5-6). Components of safe motherhood, its historical development and available literatures are discussed below :

Antenatal Care

The standard guideline of WHO has recommended at least four visits for the pregnant woman to the doctors. The aim of the standard of WHO is to prevent, alleviate or treat/manage health problems/disease (including those directly related to pregnancy) that are known to have an unfavorable outcome on pregnancy and to provide women and their families/partners with appropriate information and advice for a healthy pregnancy, child birth and postnatal recovery, including care of the newborn, promotion of early exclusive breastfeeding and assistance with deciding on future pregnancies in order to improve pregnancy outcomes (WHO, 2007:49). The mother should attain the antenatal clinic once a month during the first seven-month; twice a month

during the next month; and thereafter once a week, if everything is normal (park, 2002). He further suggests three visits should be as: first visit at 20 weeks or as soon as the pregnancy is known, second visit at 32 weeks and the third visit at 36 weeks (Park, 2002:355).

Delivery Care

Delivery care refers to the care of mother during the period of delivery. This period starts from anesthesia to post partum periods. Delivery period is considered as risky period for every mother (Kafle, 2006). Proper medical and hygienic conditions during delivery can reduce the risk of complications and infections that may cause and death or serious illness of the mother and the baby or both (MOHP, New Era and Macro International 2007:140). WHO has recommended that labor or delivery should be supervised by doctors, midwives or nurses with the midwifery skills to handle normal deliveries safely and recognize the onset of complications beyond their capacity to handle, referring the mother for emergency care.

Post natal Care

Post natal care refers to the care of mother and new born baby after delivery. Broadly this care falls in two areas: care of mother which is primarily the responsibility of the obstetrician and secondarily of family members especially of husband and relatives; and care of new born babies, which is the combined responsibility of the obstetrician, pediatrician, mother, family members and other relatives. Post natal care is one of the essential components for the reduction of maternal death (Kafle, 2006). The safe mother hood programs emphasize the importance of post natal care, recommending that all women receive at least two post natal checkups, first checkups should have soon after delivery (MOHP/Department of Health Services FHD, 2006 National Essential Maternal and neonatal health care package 2006).

2.1.1: A Historical Review of Safe Motherhood

The past 20 years have witnessed dramatic shifts in how maternal health is framed and conceptualized at the international level. Safe motherhood has evolved from a neglected component in maternal and child health programs to an essential and integrated element of women's sexual and reproductive health. In the late 1970s through the mid 1980s, while safe motherhood was acknowledged as a key priority area for attaining the health and development of women, it was neglected in the development priorities of governments and funding agencies, and maternal and child health programs tended to focus on the needs of the child and not the mother. In 1987, in an effort to redress this

situation, a global movement was launched to bring attention to the silent tragedy of women dying during pregnancy and childbirth. Over the next 15 years, largely a result of this landmark worldwide initiative, safe motherhood became a central component for the achievement of women's health and rights. At the International Conference on Population and Development (ICPD), maternal mortality was identified as a core component of women's sexual and reproductive health, and at the Millennium Development Goal (MDG) Summit it was situated within the broader context of poverty reduction efforts and overall development efforts. This section traces how maternal health has figured within the broader development framework and identifies key events that shaped its role at the international level.

The UN Decade for Women (1976–1985)

At the first conference on women held in Mexico City in 1975, the United Nations declared the period 1976–1985 as the United Nations Decade for Women in an effort to raise international attention on the health, rights, and development priorities of women. In July 1985, at the third UN conference on women, a series of "Forward Looking Strategies for the Advancement of Women" was adopted by delegates to review and appraise the achievements of the United Nations Decade for Women. Focusing on the themes of equality, development, and peace, the consensus document framed maternal health within the context of women's health and rights, and supported a reduction of maternal mortality by the year 2000. The Strategies also called for:

- equal access to health services.
- adequate health facilities for mothers and children.
- every woman's right to decide on the number and spacing of her children, and access to family planning for every woman.
- discouragement of childbearing at an early age.
- improvement of sanitary conditions, including drinking water supply.

The Launch of the Safe Motherhood Initiative (1987)

In 1987, when the Safe Motherhood Conference was held in Nairobi, Kenya, the scope and dimensions of maternal health were not well known or understood. There was little evidence available concerning the technical and programmatic interventions most effective for improving maternal health. To generate awareness and stimulate commitment among governments and funding

agencies to address this public health problem, WHO, the World Bank, and UNFPA brought together a range of stakeholders, including government officials, NGO representatives, health providers, and donor representatives at a conference in Nairobi. The conference underscored the relative neglect of maternal mortality in the development priorities of governments and funding agencies, and urged concerted action to prevent women from dying during pregnancy and childbirth. The conference situated maternal health within the context of improving women's status in the economic, social, and political spheres, and outlined specific strategies for safer motherhood:

- strengthening community-based health care by improving the skills of community health workers and traditional birth attendants, and screening high-risk pregnant women for referral for medical care;
- improving referral-level facilities to treat complicated cases and serve as a back-up to community-level care;
- developing an alarm and transport system to serve as a link between community and referral care.

For the first time ever, the international development community focused on the plight of women dying during pregnancy and childbirth, and issued a specific goal for maternal mortality reduction: to reduce maternal mortality by 50% by the year 2000. From here on, "safe motherhood" was coined as the "catch phrase" for maternal health. Following the Nairobi conference, a series of regional and national meetings was held in Africa, the Arab region, Asia, and Latin America in an effort to generate recognition of poor maternal health and stimulate commitment to address this public health problem among national decision makers, health providers, and NGOs.

The Children's Summit (1989)

In 1989, world leaders, joined by the heads of UN agencies and senior representatives of the international development community, gathered in New York to attend the World Summit for Children. The conference reviewed key areas related to the survival, protection, and development of children and issued a plan of action for the next ten years. Maternal mortality was identified as critical to the health and survival of children, and as one of the major goals of the Summit, which specifically called for a reduction of maternal mortality by half between 1990 and 2000. Maternal health was framed largely as a means to ensure childhood survival, rather than an end in itself.

The International Conference on Population and Development (1994)

The International Conference on Population and Development (ICPD), held in Cairo, Egypt, was a watershed event for women's health and rights. Reframing population and development from a focus on meeting demographic goals to securing the reproductive health and rights of men and women of all ages, the ICPD put forward a far-reaching plan for achieving progress in health and development.

Maternal health was situated within the context of the comprehensive approach to reproductive health. Specifically, the ICPD Program of Action called for: Governments agreed to cut the number of maternal deaths by half by the year 2000, and in half again by 2015. In 1995, the Fourth World Conference on Women (FWCW) in Beijing gave substantial attention to maternal mortality and reiterated the commitments made at the ICPD. The ICPD and Beijing commitments also reinforced the position that maternal deaths and disability are violations of women's human rights, and are strongly tied to women's status in society and economic dependency.19 At a fundamental level, women have a right to health services that promote their health and survival during pregnancy and childbirth.

Tenth Anniversary of the SMI (1997–1998)

To commemorate the tenth anniversary of the Initiative, the members of the Safe Motherhood Inter-Agency Group executed a wide-ranging program with the following objectives:

- invigorate national and international commitment and action for safe motherhood among a range of audiences, including policymakers, donors, and health providers; and
- bring together existing knowledge and research on the most effective interventions into a set of clear technical messages for guiding programs and policies on the ground.

The Safe Motherhood Tenth Anniversary program consisted of a comprehensive set of activities, including a technical consultation held in Colombo, Sri Lanka in October 1997 to forge consensus on the most cost-effective strategies for safe motherhood; a World Heath Day media event in April 1998 to generate high-level attention to the problem of maternal mortality among developing country policymakers and donors; and a far-reaching media strategy and communications campaign to widely disseminate the findings and messages to interested parties all over the world. The Tenth Anniversary

program has been by far the single largest effort to advance safe motherhood within the international and national arenas. Selected products and outcomes included:

- increased media attention on the dimensions and consequences of maternal mortality.
- a set of ten priority action messages reflecting consensus on the key policy and program strategies for improving maternal health
- a range of communications tools and resources, including a Web site, fact sheets, public service announcements, a brochure, and a pocket card.

The ten priority action messages profoundly transformed the conception, design, and implementation of safe motherhood programs and policies. Two program interventions that the Initiative itself had advocated ten years earlier at the Nairobi conference (training of traditional birth attendants and risk screening for pregnant women to identify those most likely to develop obstetric complications) were deemed to be ineffective for reducing maternal mortality, and not to be promoted as priority strategies. Instead, the ten action messages emphasize the need to address the broad social, economic, and political context that contributes to women's risks of dying during pregnancy and childbirth, and promote access to essential obstetric care to prevent or treat serious obstetric complications.

Millennium Development Goals (2000)

In 2000, at the UN Millennium General Assembly in New York, 189 countries from around the world adopted specific international development goals with the aim of reducing poverty and promoting human development. Building upon the agreements and commitments made at the series of world conferences held in the 1990s, the Millennium Development Goals (MDGs) offer a blueprint for reducing poverty and hunger, and addressing poor health, gender inequality, lack of education, lack of access to clean water, and environmental degradation. Millennium Development Goal 5 calls for an improvement in maternal health and a reduction in maternal mortality by 75% by 2015 from 1990 levels. The identification of maternal health as one of the eight MDGs firmly situates it as central to poverty reduction and overall development efforts. Its inclusion has resulted in increased international attention to maternal mortality, and provided a mechanism for monitoring progress on maternal health and improving access to skilled attendants at deliveries (the key indicator for measuring progress for Goal 5). With the MDGs now widely accepted as the framework for assessing progress on overall health and development at the national and international

levels, safe motherhood can figure more prominently in country programs and in development agencies' priorities.

For each of the Goals and targets, a task force was established to provide governments and members of civil society with a concrete plan for achieving progress on health and development. The Task Force on Child Health and Maternal Health issued a set of nine recommendations for realizing improvements in maternal health and child mortality (Goal 4 calls for a reduction by two-thirds of the under-five child mortality rate). In its report, the Task Force outlined the central challenge for maternal and child health: developing and strengthening functioning health systems through which evidence-based interventions can be delivered and scaled-up to the full population. In particular, the report highlighted the unequal distribution of power and resources, and a range of social, economic, cultural, and political inequities, as the main impeding factors for achieving progress in maternal and child health. Safe motherhood's inclusion in the Millennium Development Goals was both a recognition of its centrality to poverty alleviation and a compromise.

2.2: Safe Motherhood in the Context of Nepal

After Global Safe Motherhood Initiative in 1987, there has been dramatic worldwide increase in attention to solve the problem of maternal mortality and morbidity. In Nepal, the first elected democratic government developed New Health Policy in 1991 which identified Safe motherhood as a priority program and institutionalized safe motherhood as a primary health care. Based on this new policy, in 1993, a Safe Motherhood Task Force was established under the chairmanship of the Secretary of MoH to improve the health status of women during pregnancy and childbirth. This task force comprises members from the Ministry of Education, the Ministry of Local Development and the Law Reform Commission. A group of resource person from UN and other agencies and organizations was formed to assist the task force. This task force developed National Safe Motherhood Plan of Action (NSMPA), in which priority activities for the Safe Motherhood were identified for the period 1994-1997. A multi-sectoral approach was adopted in order to produce a comprehensive plan of action aimed at reducing maternal mortality and morbidity, using a combination of health and health related strategies. According to this plan of action ten pilot districts were identified however in the first phase special activities were conducted only in three districts. Based on evaluation of in these three districts, EOC model has been implemented in thirteen districts.

A new cadre of staff called Maternal and Child Health Worker (MCHW) was initiated in 1993 as part of a national drive to reduce maternal deaths. MCHWs are local women selected to serve the maternal and child health needs of the community. At the end of 2002, approximately 4000 MCHWs had received basic training and working in Sub Health Posts in Nepal.

After ICPD in 1994 and Fourth World Conference on Women in 1995, MoH published Reproductive Health Strategy in 1998, which includes safe motherhood in the integrated RH care package. In 1998, another milestone was stepped in safe motherhood program of Nepal by conducting Mater Mortality and Morbidity study to fill a gap in knowledge about the leading causes of maternal death, delay in deciding to seek, reach and receive care as well as other avoidable factors at the hospital level.

Based on lesson learned from implementing safe motherhood initiatives and in line with Second Long Term Health Plan, MoH, Family Health Division developed National Safe Motherhood Plan 2002-2017. This plan gives a long term vision of where Nepal wants to be in the next 15 years. This plan also tries to draw a balance between the supply and demand of services. This long term safe motherhood plan has formulated overall mission statement as "To facilitate creation of an enabling environment where a woman's right to safe pregnancy, delivery and post partum care is achieved". Similarly this plan has formulated overall goal as "Maternal and neonatal health status improved".

In Nepal, Safe Motherhood Program is coordinated by the Family health Division of the Department of Health Services within the context of Nepal's National Reproductive Health Program. FHD is implementing various level of maternity care and obstetric services in different level of health facilities in Nepal with support of different international organizations especially World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the Department for International Development (DFID), U.S. Agency for International Development (USAID), and German Agency for Technical Cooperation (GTZ) and several national nongovernmental organization (Shrestha, 2008 : 86-87). This programme has long been a key component of the country's major health plans and strategy documents. A policy on skilled birth attendants (SBA) and a long-term plan have been formulated and in-service training of SBAs started. While the government has made considerable gains in reducing maternal mortality, further gains require improving women's access to competent normal delivery services and safe caesarean sections. Trained and motivated health workers, available at the

time of birth, are essential for the provision of such services. The public sector has, however, been unable to maintain constant and adequate staffing of safe delivery services, particularly in rural health facilities (RTI International, 2009 : xiii).

The Government of Nepal aims to create an environment where women have access to obstetric care where and when they most require it. The overall goal of the Nepal National Safe Motherhood and Newborn Health Long Term Plan (2001-2017) is to improve maternal and neonatal health and survival especially among poor and socially excluded communities, with indicators drawn from the MDGs. These include a reduction in the maternal mortality ratio to 134 per 100,000 live births by 2017 and a reduction in the neonatal mortality ratio to 15 per 1,000 live births by 2017.

Since the launch of the safe motherhood initiative in 1987, attention to reproductive health has increase worldwide, as has the need for reliable countryside estimates of maternal deaths. The World Health Organization (WHO), United Nations Children's Fund (UNICEF). United Nations Population Fund (UNFPA), Department for International Development of the United Kingdom (DFID), USAID, Germany's Gesellschaft for Technische Zusammenarbeit (GTZ), and other international and national NGOs, the Ministry of Health and Population is working toward better access and higher quality services to improve maternal health. The Support for Safer Motherhood Program (SSMP) is designed to improve infrastructural development/through comprehensive emergency obstetric care, and birthing centers) and human resource development and upgrade the skills of skilled birth attendants (SBAS). The maternal mortality ratio (MMR) is still high as compare to other developing and developed countries. There are different harmful cultures and beliefs in Nepal. The MMR is 281 deaths per 1,00,000 live births. 44% of mothers received antenatal care from skilled birth attendants (SBAs). Less than 2% of women received ANC from a traditional birth attendant or a female community health volunteer (FCHV). 26% of women received no antenatal care births in the 5 years before the survey. 81% delivery take place at home. Only 18% of births take place in a health facility. Less than 19% of births take place with assistance of a SBA. Majority of mother's dying of birth complications at home 67%. 11% on the way, 21% in the facility. On the other hand, 33% of women received postnatal care for their last birth (NDHS, 2006).

The 2006 NDHS reports a dramatic decrease in the maternal mortality ratio from 539 per 100,000 live births in 1996 to 281. Family planning use has also improved. Currently, 44 percent of married women use a modern contraceptive,

whereas 10 years ago only 26 percent did so. Use of skilled assistance at birth is still low, however. Peripheral health facilities are underutilized and poorly staffed, while zonal and regional hospitals are overcrowded with somewhat better staffing levels.

The government of Nepal announced recently that essential health care services will be free of charge at district hospitals and primary health care centers. User fees were abolished at health and sub-health posts in January 2008. To increase safe deliveries equitably in institutions, the government will introduce free delivery services (for normal deliveries, those with complications and caesarean sections) at all health facilities (RTI International, 2009 : 1-2).

2.3: Male Participation in Safe Motherhood

Maternal health rarely gets the priority or attention that it deserves. Partly that's because the victims tend to be faceless, illiterate women who carry little weight in their own families, let alone on the national or world agenda (FCI, 2005). Men, whether in family roles as husbands, partners, fathers, or brothers of pregnant women or in their social roles as leaders, elders, or healers, are often the key decision-makers within the family and the community. The delays that can occur when family members must await permission to seek health care from absent or ill-informed heads of households can be fatal. This is particularly true when health emergencies that require the allocation of scarce economic resources arise. This responsibility persists even when male family members are absent, often employed in distant areas (Roth and Mbizvo, 2001 : 14).

As men influence indoor and outdoor decision making their involvement in reproductive health needs to be more emphasized. In order to plan the family by better way, men need to share equal responsibility in family fife including reproductive health. However, reproductive health and family planning programs have focused mainly in the responsibility of women in the past. In order to correct this situation the RH/FP IEC strategy needs to segment "men" as one of its key target groups to increase safe motherhood practice. In Nepal males are generally dominant and mobile for job and other opportunity as a result, heir behavior with respect to reproductive practice carried hazards to the life of women. Unknowingly, women suffer from several sexual diseases without any fault of their own but by the weakness of men. Therefore, focus on men should also address issues like the secured sexual behavior and means to prevent the sexually transmitted disease, including the HIV/AIDS, and ensure the responsible parenthood (UNICEF, 1996 : 84-85)

Men's attitudes on gender-based issues affect all aspects of women's lives, including those related to reproductive health. Men have a stake in reproductive health through their multiple roles as sexual partners, husbands, fathers, family and households members, community leaders and gatekeepers to health information and services. Community support for the improvement of opportunities for women and men and for promoting gender equity and equality, responsible sexual behavior, safe motherhood and supportive fatherhood and especially the engagement of young men and boys in positive gender related actions must necessarily involve men. Encouragement in joint decision-making in the family and male support for their partners choices related to reproduction is vital components of an empowering and participatory orientation to reproductive health (UNFPA, 1995 : 31-56).

UNFPA strongly encourages working with men and women to support gender equality and equity, and to ensure consensual decision-making on sexuality and reproductive health issues. This includes promoting men's understanding of their roles and responsibilities with regard to respecting the human rights of women; protecting women's health, including supporting their parents' access to sexual and reproductive health services and reproductive health commodities; preventing unwanted pregnancy; reducing maternal mortality and morbidity; reducing transmission of STIs, including HIV/AIDS; sharing household and child-rearing responsibilities, and promoting the elimination of harmful practices and gender based violence.

2.4: Conceptual Framework

Based on the literature review and identified variables to assess the male participation, the following conceptual framework is formulated for this proposed study.

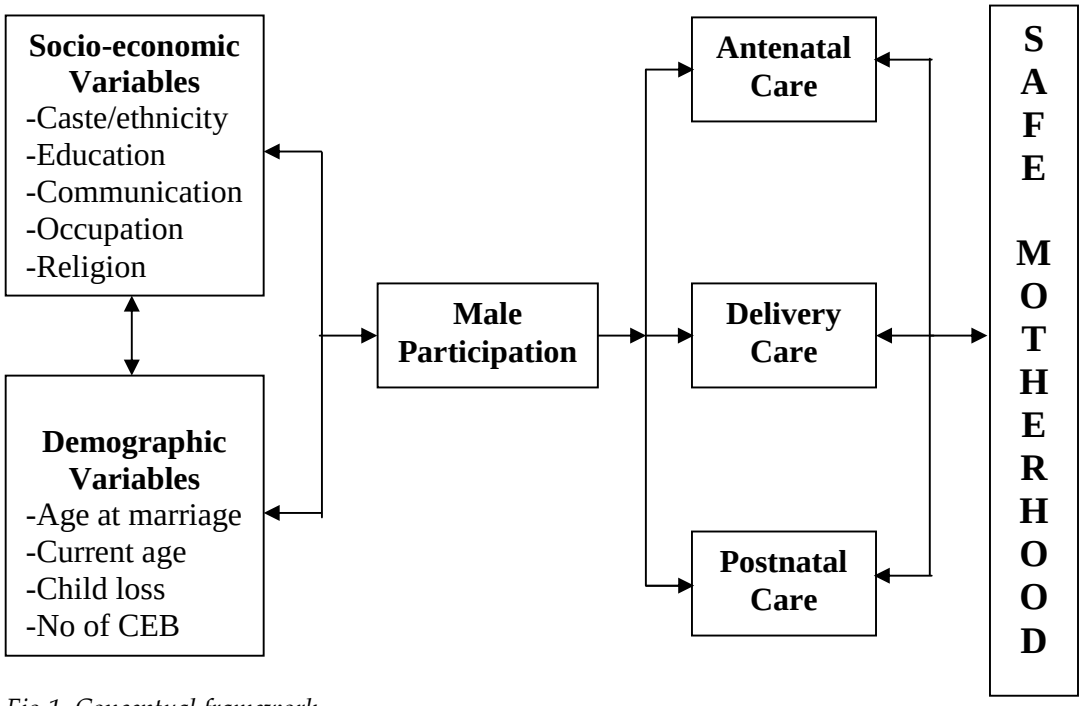

Fig.1. Conceptual framework

Socio-economic variables such as caste/ethnicity, education, religion and occupation are considered as independent variables for the participation of male in safe motherhood in this study. In different caste/ethnic group the male participation may vary while nurturing pregnant woman. Similarly education determines the level of understanding of male about the condition of female who is in pregnant hood. According to religious practice the involvement of male in safe motherhood may also vary. If male participates in all the problems evolved in the stages of motherhood, it makes it safer. That is why the study of participation of male in safe motherhood is the important in the study of safe motherhood. So participation of male in three stages of safe motherhood, antenatal care, delivery care and postnatal care will be analyzed separately. Similarly the demographic variables such as age at marriage, current age, child loss experience and number of CEB also plays role in determining the male participation in making motherhood safer. The independent variables are considered as male. The socio-economic and demographic variables are determined the level of male participation in safe motherhood.

CHAPTER 3
METHODOLOGY

Based on the theoretical and empirical review of literature, this chapter adopts the suitable method for the collection of data and on the basis of conceptual framework, area of data analysis was identified.

3.1: Study Area

Nepal is a multi-lingual, multi-religious and multi-ethnic society. It is divided in to three distinct ecological zones. They are: Mountain, Hill and Terai. Nepal is categorized into 5 development regions and 75 districts. The Mountain range from 4,877 meters to 8,848 meters above the sea level. According to 2001 census, the region accommodates 7.3 percent of the total population. Hill regions lies between the altitudes of 610 meters to 4,877 meters above the sea level. The terai region lies in the southern part of country. The terai, being an extension of the Gangetic plains of India, forms a low flat land. It accommodates 48.4 percent of population in 2001 (CBS, 2007).

Fig. 2. Map of Nepal (Survey Department of Nepal)

Taplejung District, a part of Mechi Zone lies between 27^0 19' to 27^0 55' North latitude and 87^0 28' to 88^0 12' east longitude and is one of seventy-five districts of Nepal.

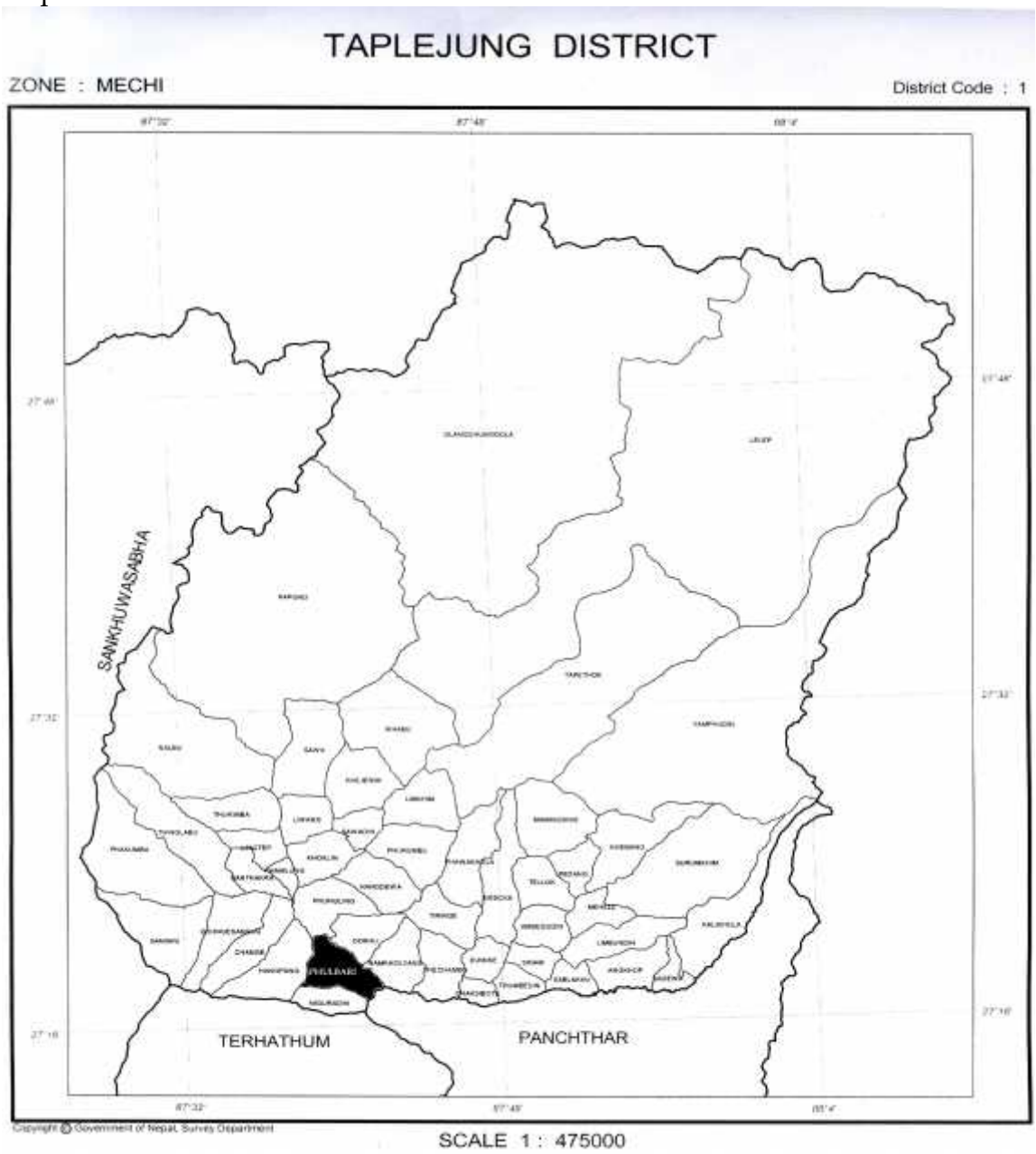

Fig. 3. Map of Taplejung district (Department of survey, Nepal Government)

The district, with Taplejung (Fungling) as its district headquarters, covers an area of 3,646 km² and has a population (2001) of 134,698 (CBS, 2003).The Tamor river flows through the district and the area is famous for its proximity to Kanchenjunga(8586m), the third highest mountain in the world. It has an airstrip with commercial flights to Biratnagar and Kathmandu. A road has connected the district headquarters with the Tarai plains. Most of the population are involved in agriculture, and the vegetation zones range from sub-tropical, to temperate forests, alpine meadows and snow and ice. It is one of the most beautiful areas

with spectacular landscape, Himalayan peak of heights above 7000 meters and a wide range of flora and fauna. Alpine grassland, rocky out crops, dense temperate, subtropical forests, and no river valleys make up the region. Taplejung occupies an area ranging from 670 meters to 8586 meters (Mt. Kanchanjunga) above sea level. One of the major attraction that lies in this area is the Pathibhara Devi temple. This secret region attracts tourists seeking spiritual fulfillment and blessings from the powerful Pathibhara Devi. Hindus as well as the Buddhists reach the temple for celebrations during special occasions. The trek to Pathibhara Devi (3794 m) combined with the natural and cultural experiences of the region make the visit a unique exhilarating experience. There are 50 village development committees (VDCs) in total. Among them Phulbari VDC is the proposed study area.

Phulbari VDC lies in the southern part of Taplejung district headquarter-Phunling. It is surrounded by 6 VDCs, Phsunging and Dokhu in North, Namkholyang and Amarpur in East, Niguradin in South and Hanpang in West. The area of this VDC is approximately 21 sq.km.. According to 2001 census, total 4076 people are living in this VDC. Most of the people residing in this VDC are Bahun, Limbu, Tamanag, Dalit, Newar, Gurung, Chhettri and Sherpa (28%, 23%, 9%, 8%, 7%, 6%, and 5% respectively), and Magar, Rai and Sunuwar are less than 1% to the total population of the VDC (Village Development Committee Profile of Nepal, 2008).

Fig. 4. Map of Phulbari VDC

3.2: Data Collection Technique

3.2.1: Selection of Households

According to 2001 census 781 households are in study area. There are nine wards in Phulbari VDC (study area). These nine wards in the VDC were divided into five clusters according to human settlements. Cluster 2 and 3 were selected by using lottery method for the study. After selecting the clusters, by identifying the household with currently married women and who have given at least one birth and is below five years of age were taken as the respondent of this study. Because of inconsistency in finding respondents in each households of cluster, who have given birth within five year preceding the survey, purposive sampling method was utilized to collect information. 100 respondents from cluster number 2 and 60 respondents from cluster number 3 were interviewed. From each household only one respondent was included in the study. In total 160 household and 160 respondents were enumerated.

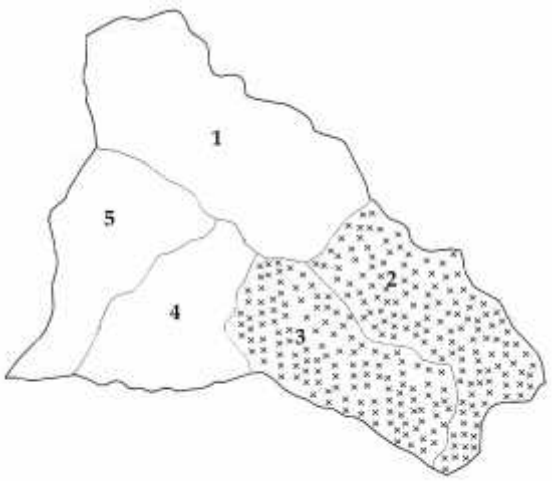

Fig. 5. Selected clusters of the VDC for the study

3.2.2: Questionnaire Design

Two sets of questionnaires were prepared. Household questionnaire were used to collect some socio-economic and demographic information. The information required to assess the knowledge of currently married women in safe motherhood and participation of male in antenatal care, delivery care and postnatal care were collected through individual questionnaire.

3.2.3: Collection of Information

In each sampled household, every currently married woman were interviewed. The data were collected by asking questions based entirely on the questionnaire. Structured questionnaire were used. Questions were asked by following face-to-face interview method.

3.2.4: Methods of Data Analysis

Information collected from field operation were analyzed in various ways. SPSS program were used. From this program distribution table were constructed and cross-tabulation were prepared.

CHAPTER 4
CHARACTERISTICS OF HOUSEHOLD AND RESPONDENTS

This chapter provides basic information on demographic and socio-economic characteristics of the household and respondents. It also provides information on household facilities and assets. The background characteristics of the household include caste/ethnicity, religion, main source of information and communication, toilet facilities and sources of drinking water. On the other hand individual characteristics of respondents include education, occupation, children ever born, child loss experience and age at marriage.

4.1: The Demographic and Socio-economic Characteristics of the Household.

The total population of the sampled households of study area was 852. Males and females are 421 and 431 respectively. So, the sex ratio of the study became 97.7 males per 100 females. The latest census of Nepal 2001 calculates overall sex ratio and sex ratio of rural area as 99.8 and 98.8 males per 100 females respectively (CBS, 2003). The sex ratio of the study area is lower than that of sex ratio obtained from census 2001. In this study, the demographic and socio-economic characteristics of the household include caste/ethnicity, religion, communication, toilet facilities and sources of drinking water.

4.1.1: Household Characteristics by Caste/ethnicity.

The caste system of Nepal is basically rooted in Hindu religion. The ethnic system has been rooted mainly in mutually exclusive origin, myths, historical mutual seclusion and the occasional state intervention. The census of 2001 has listed 103 caste/ethnic groups including "unidentified group." Brahmin/chhetri and Janajatis are major caste group in the study area. Dalits are less in number than other caste. Brahmin/Chhetri and Janajati (Limbu, Rai, Tamang, and Gurung) are nearly equal in study area (43.1 percent and 43.8 percent respectively). 13.1 percent Dalits (Kami and Damai) are residing there.

4.1.2: Household Characteristics by Religion and Source of Information.

In Nepal most of the people are following Hinduism. It has been consistently over 80 percent since 1950's. The second largest religion is Buddhism practiced by about 11 percent while Islam constitutes about 4.2 percent of population. Kirant religion accounts for nearly 3.6 percent of national population.

Table 1: Distribution of household by religion

Religion	Number	Percent
Hindu	7	60.6
Kirat	37	23.1
Buddhist	26	16.3
Total	160	100.0

Source: Field Survey, 2009.

Table 1 and 2 shows the religious condition and the source of information of households of study area. The distribution of household by religious affiliation shows that 60.6 percent of households are following Hindu religion, 23.1 percent are kirat and 16.3 percent are Buddhist.

Table 2: Distribution of household by their source of information.

Source of Information	Number	Percent
Radio	159	99.4
Newspaper	1	0.6
Total	160	100.0

Source: Field Survey, 2009.

Access to information through media is essential to increase people's knowledge and awareness of what is taking place around them, which may eventually affect their perceptions and behavior. In this study, exposure to media was assessed by asking respondents if they listen to a radio, watch television or read newspapers. Nearly all (99.4 percent) households have access to the radio and they are using it as a source of information. Therefore, radio is the main source of information in the study area. Only one household is using newspaper as a source of information.

4.1.3: Household Characteristics by Toilet Facilities and Sources of Drinking Water.

Table 2 presents information about household facilities by the type of toilet and sources of drinking water. Around 60 percent of the households do not have a toilet facility. They have kachhi toilet. About 2.5 percent of households have concrete toilet facility while 38.1 percent have semi concrete toilet facility.

Table 3 also shows that the most common source of drinking water in the study area is piped water with about 90.6 percent households having this source. Only 9.4 percent of households are drinking pond/lake water.

Table 3: Distribution of household by toilet facilities and sources of drinking water.

A.	Types of toilet	Number	Percent
	Concrete	4	2.5
	Semi-concrete	61	38.1
	Kachhi	95	59.4
	Total	160	100
B.	Source of drinking water	Number	Percent
	Piped water	145	90.6
	Pond/lake	14	9.4
	Total	160	100

Source: Field Survey, 2009.

4.2: The Demographic and Socio-economic Characteristics of the Respondents.

The study covers the demographic information of respondents such as age composition, age at marriage, number of children ever born and child loss experience. The socio-economic characteristics of the respondents include the level of education and occupation status.

4.2.1: Age Composition

Table 4: Age composition of the respondents

Age Group	Number	Percent
15-19	5	3.1
20-24	7	4.4
25-29	36	22.5
30-34	41	25.6
35-39	37	23.1
40-44	24	15.0
45-49	10	6.3
Total	160	100.0

Source: Field Survey, 2009.

The above table shows the distribution of age of the respondents. This study enumerated a total of 160 women with age 15-49 years of age. Among them, a large proportion of women (25.6 percent) are of 30-34 years age group followed by 35-39 and 25-29 years of age group (23.1 percent and 22.5 percent respectively). 20-24 year age group has 4.4 percent respondents and 15-19 years age group comprises only 3.1 percent to the total number of respondents.

4.2.2: Age at Marriage of the Respondents

In the overall context of Nepal, the legal minimum age at marriage for both male and female have set at 18 years with parental consent. If the boys and girls want to marry on their own then the minimum age at marriage for both boys and girls is 20 years.

Table 5: Distribution of mean and median age at marriage for women and husband.

Age at marriage	Women	Husband
Mean age at marriage	18.5	21.5
Median age at marriage	18	21

Source: Field Survey, 2009.

In the proposed area, the mean age at marriage for both boys and girls have shown 21.5 and 18.5 years respectively. Similarly median age at marriage in study area is 18 and 21 years for women and husband respectively. It is said that so many social and cultural factors are responsible for early marriage and late marriage to determine the level of marriage practices.

Table 6: Distribution of respondents by age at marriage

Age at Marriage	Number of Respondents	Percent
13	4	2.5
15	15	9.4
16	34	21.3
17	18	11.3
18	24	15.0
19	22	13.8
20	12	7.5
21	8	5.0
22	6	3.8
23	4	2.5
25	8	5.0
28	2	1.3
29	1	0.6
32	1	0.6
35	1	0.6
Total	160	100.0

Source: Field Survey, 2009.

By observing the above table, the early marriage system is high for female in purposed area. More than 80 percent female were married within 20 years of age. At the age of 16, 21.3 percent respondents got married, which shows the practice of child marriage in rural areas. Only 19.4 percent female were married above 20 years of age. One respondents got married each at age 29, 32 and 35 years of age.

Table 7: Distribution of respondents' husband by age at marriage.

Age at Marriage of Husband	Number of Respondents	Percent
15	3	1.9
16	20	12.5
17	16	10.0
18	13	8.1
19	20	12.5
20	4	2.5
21	20	12.5
22	13	8.1
23	10	6.3
24	1	0.6
25	10	6.3
26	3	1.9
27	6	3.8
28	2	1.3
29	8	5.0
30	3	1.9
31	2	1.3
34	1	0.6
35	1	0.6
37	1	0.6
38	1	0.6
39	2	1.3
Total	160	100.0

Source: Field Survey, 2009.

Table 7 shows that the late marriage of the male is high while comparing it with the female age at marriage. One in two (52.5 percent) male were married above 20 years of age and 47.5 percent of male were married below 20 years of age. Most husbands got married at ages 16, 19, 21 (12.5 percent each).

4.2.3: Child Loss Experience of the Respondents.

The average numbers of dead children were 1.38 in the study area. Among total respondents 50 respondents have child loss experience. The 110 respondents have no child loss experience.

Table 8: Distribution of respondents by child loss experience.

Child loss experience	Number	Percent
Yes	50	31.3
No	110	68.8
Total	160	100.0

Source: Field Survey, 2009.

Out of the total 160 respondents 50 women have lost children after live birth. Among them 39 women have lost 1 child, 6 women have lost 2 children and 2and 3 women have lost 3 and 4 children respectively

Table9: Distribution of respondents by number of dead children.

Number of dead children	Number	Percent
1	39	78.0
2	6	12.0
3	2	4.0
4	3	6.0
Total	50	100.0
Average no. of dead children	1.38	

Source: Field Survey, 2009.

4.2.4: Literacy Status and Educational Attainment.

Education is one of the most influential factor affecting an individual's attitude, knowledge and behavior in various facets of life. The literacy status and educational attainment in the study area is very low among respondents who are much more disadvantaged than their male counterparts.

Table 10 shows that more than 30 percent of women compared with less than 20 percent of husband are illiterate. Out of total literate population 81.9 percent husband and 67.5 percent women are literate.

Table 10: Literacy status of respondents and their husbands

Literacy Status	Husband		Women	
	Number	Percent	Number	Percent
Literate	131	81.9	108	67.5
Illiterate	29	18.1	52	32.5
Total	160	100	160	100

Source: Field Survey, 2009.

Table 11: Educational attainment of respondents and their husbands

Educational Attainment	Husband		Women	
	Number	Percent	Number	Percent
Primary	37	28.2	49	45.4
Secondary	45	34.4	27	25.0
Higher	49	37.4	32	29.6
Total	131	100.0	108	100.0

Source: Field Survey, 2009.

Table 11 shows that in study area most respondents have acquired primary level of education, while in the case of husband most are educated having higher level of education. Out of the total literate husband and women, 28.2 percent of husband and 45.4 percent women have completed primary level of education, 34.4 percent of husband and 25 percent of women have completed secondary level of education and 37.4 percent of husband and 29.6 percent of women have completed their higher level of education.

4.2.5: Occupational Status of the Respondents.

Table 12 shows the occupational characteristics of the respondents. Agriculture is the dominant sector of the economy in the study area. Most of the husband and women are engaged in agricultural sector. Out of the total number, 60.6 percent of husband and 90.6 percent of women are involving in agriculture sector. Less number of women is engaged in government service (8.1 percent) than husband (20 percent). The lowest number of women (0.6 percent) are involving in trades/industries and private services. Foreign recruitment is the popular job for husband in the proposed area. Out of total number of husband 16.3 percent has gone to foreign country, while no women are found involving in foreign recruitment.

Table 12: Distribution of husband and women occupation status.

Occupation Status	Husband		Women	
	Number	Percent	Number	Percent
Agriculture	97	60.6	145	90.6
Govt. service	32	20.0	13	8.1
Private service	2	1.3	1	0.6
Trade/Industries	3	1.9	1	0.6
Foreign recruitment	26	16.3	-	-
Total	160	100.0	160	100.0

Source: Field Survey, 2009.

4.2.6: Children Ever Born

Table 13: Distribution of children ever born by respondents age

Age group	No. of women	No. of children	C E B
15-19	5	5	1
20-24	7	8	1.1
25-29	36	80	2.2
30-34	11	123	3
35-39	37	154	4.2
40-44	24	105	4.4
45-49	10	55	5.5
Total	160	532	3.3

Source: Field Survey, 2009.

The mean number of children ever born rise with increasing age of women. The mean number of CEB for women of age group 15-19 is 1 and which increased gradually to 5.5 to women of 45-49 years age group. In study area number of children ever born by a women of reproductive age is 3.3. The mean number of children ever born to older women who are nearing the end of their reproductive period is an indicator of average completed fertility of women who began childbearing during the three decades preceding the survey. The mean number of CEB in study area is less than the national level CEB. According to NDHS 2006 the mean number of CED is 5.3 (NDHS, 2006).

CHAPTER 5

ANALYSIS OF DATA

This chapter presents the knowledge of respondents about antenatal care, delivery care and postnatal care. In this study, many aspects of knowledge were found in the period of pregnancy checkup, accessibility of hospital, health post and sub-health post for the delivery and after delivery checkup of women and neonatal child. The household support extended by male during pregnancy and delivery is also included in this chapter.

Maternal health is an important part of the health care system aimed at reducing morbidity and mortality related to pregnancy. The health care that a woman receives during pregnancy at the time of delivery and soon after delivery is important for the survival and well being of both the mother and the child. The most essential component of reproductive health, safe motherhood is related to age group of women 15 – 49 years.

5.1: Knowledge about Safe Motherhood

In the study area, all the respondents were asked whether they had heard about safe motherhood or not. Out of the total number of respondents 81 respondents (51 percent) have knowledge about safe motherhood and remaining have no knowledge about safe motherhood. Radio is the most popular media through which 37 percent of the total respondents known what the safe motherhood is. 48.1 percent respondents gained knowledge from health/workers. In study area, there is a lack of electricity facility from government and due to geographical complexities it is very hard to get newspaper. Therefore television and newspaper were less important source of information and communication in the study area.

5.2: Knowledge about Antenatal Care.

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. The WHO recommends that a women without complication have at least four ANC visits to provide sufficient antenatal care. Therefore, every woman must be aware about the problems of pregnancy and they should have knowledge about pregnancy checkup for the absolute pregnancy outcomes.

In the study area, most of the women are facing risk during their pregnancy. They are deprived from social and cultural values and norms. In the study, data shows that 45.6 percent women have no knowledge about antenatal care. They are depending on traditional practice. More than 54 percent respondents have knowledge about antenatal care, who are receiving ANC services from health workers. Out of the total respondents, 99 respondents (62 percent) have received ANC service and 61 respondents (38 percent) did not received ANC service during the pregnancy period.

Most of the respondents have taken service from sub-health post (49.5 percent) and health post (43.4 percent) by MCHV and health assistant. Only 7.1 percent respondents have taken service from district hospitals by doctors and the nurse. Out of 99 ANC visitors, 85.9 percent respondents have visited four times and 8.1 and 6.1 respondents have visited 2 and 3 times respectively.

5.2.1: ANC by Women Education.

In the study, educated women were more sincere for their visit for pregnancy check up than uneducated woman.

Table 14:Distribution of antenatal checkup by women education.

Literacy status	Ante natal checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Literate	89	82.4	19	17.6	108	100
Illiterate	10	19.2	42	80.8	52	100
Total	99	61.9	61	38.1	160	100

Source: Field Survey, 2009.

Table 14 shows that the distribution of antenatal checkup by the women's knowledge. More than 80 percent women have received antenatal checkup, out of the 108 literate women. Only 17.6 percent literate women were deprived to take ANC service. On the other hand, total number of 52 illiterate women, more than 80 percent women have not received ANC service. Less than 20 percent women have received antenatal checkup.

Table 15:Distribution of antenatal checkup by level of women education.

Level of education	Ante natal checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Primary	32	65.3	17	34.7	49	100
Secondary	25	92.6	2	7.4	27	100
Higher	32	100.0	-	-	32	100
Total	89	82.4	19	17.6	108	100

Source: Field Survey, 2009.

Table 15 shows that if women received higher level of education their ANC visit became regular and more frequent. The data shows women who have completed the primary level of education haven't received antenatal checkup at all, which is very high (34.7 percent). But women who have completed secondary and higher level of education have improved condition of ANC visit than a women of primary level of education. All respondents who have completed higher level of education have received antenatal checkup than secondary level (92.6 percent) completed women. Therefore, the proportion of respondents who have received antenatal checkup is high with increase in their level of education. Likewise, husband education is also influencing the women's ANC visit. Higher the level of education of husband higher the chances of receiving antenatal checkup. Which is shown in table 16 below.

Table 16: Distribution of antenatal checkup of respondents by their husband's level of education

Husband's Level of education	Ante natal checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Primary	12	32.4	25	67.6	37	100
Secondary	34	75.6	11	24.4	45	100
Higher	49	100.0	-	-	49	100
Total	95	72.5	36	27.5	131	100

Source: Field Survey, 2009.

5.2.2: ANC by Occupation

Occupation is essential component to increase the knowledge and awareness during the period of the pregnancy. Table 17 present the information of the respondents by level of occupation. The majority of the respondents is in agricultural sector (42.1 percent), who did not received ANC service during their pregnancy. All of the respondents who involved in private service, government service, and trade/industries have received ANC service. It is found that the quality of ANC visit depends upon the quality of jobs.

Table 17:Distribution of antenatal care by occupation of respondents

Level of occupation	Ante natal checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Agriculture	84	57.9	61	42.1	145	100
Private service	1	100	-	-	1	100
Gov. Service	13	100	-	-	13	100
Trade/Industries	1	100	-	-	1	100
Total	99	61.9	61	38.1	160	100

Source: Field Survey, 2009.

5.2.3: ANC by Caste/Ethnicity

There are different caste in the study area. They are Brahmin/Chhetri, Janajati and Dalit.

Table 18:Distribution of antenatal care by caste/ethnicity.

Caste	Ante natal checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Brahmin/chhetri	51	73.9	18	26.1	69	100
Janajati	34	48.6	36	51.4	70	100
Dalit	14	66.7	7	33.3	21	100
Total	99	61.9	61	38.1	160	100

Source: Field Survey, 2009.

The above table shows the percentage distribution of respondents by caste. Most of the Brahmin/Chhetri have taken ANC service than Janajati and Dalit. On the other hand, less number of Janajati and Dalit have received ANC checkup as comparing with Brahmin/Chhetri. Out of the total 160 respondents, 73.9 percent have received antenatal care, who were Brahmin/Chhetri and 51.4 percent Janajai did not received antenatal checkup. In total number of Dalit, 66.7 percent have taken ANC checkup and 33.3 percent have not received antenatal checkup during the pregnancy period.

Table 19: Distribution of place of ANC checkup by caste

Caste	Place of ANC check up							
	District Hospital		Health Post		Sub-Health Post		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Brahmin/ Chhetri	7	13.7	23	45.1	21	41.2	51	100
Janajati	-	-	14	41.2	20	58.8	34	100
Dalit	-	-	6	42.9	8	57.1	14	100
Total	7	7.1	43	43.4	49	49.5	99	100

Source: Field Survey, 2009.

Table 19 shows the information of place of antenatal checkup by caste. Out of the total ANC visitors, most of the women have taken service from sub-health post (49.5 percent) and health post (43.4 percent). Only the 7.1 percent have taken ANC service from district hospital. Like wise, the district hospital is the only place of ANC checkup for Brahmin/Chhetri. The Janajati and Dalit have taken the ANC service from health post and sub- health post.

5.3: Knowledge about Delivery Care

Obstetric care from a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. The women, who delivers at home, face the problem of infection due to lack of adequate knowledge about place and materials of safe delivery.

In the study area large number of respondents have given birth at home and they were assisted by untrained attendants during delivery. These kinds of home deliveries take place in extremely unhygienic condition. This is the harmful procedure for both the mother and her new born baby. Data shows that more than 60 percent respondents have delivered at home with the assistance of non-medical person. Remaining (40 percent) delivered in health post and district hospital.

5.3.1: Place of Delivery by Respondents' Educational Attainment.

There are various factors, which are responsible to determining health facilities. Among them education is one of the important factor. The study has found that the degree of receiving service of delivery goes up with increasing the level of education. Therefore, if a women is educated, she became aware for the place of delivery.

Table 20: Distribution of place of delivery by respondents' education.

Place of delivery	Literacy Status					
	Literate		Illiterate		Total	
	Number	Percent	Number	Percent	Number	Percent
Hospital	32	29.6	1	1.9	33	20.6
Health Post	22	20.4	2	3.8	24	15.0
Private Clinic	1	0.9	-	-	1	0.6
Home	53	49.1	49	94.2	102	63.8
Total	108	100	52	100	160	100

Source: Field Survey, 2009.

The table 20 depicts that the place of delivery depends on the women education. More than 50 percent women delivered at hospital, health post and private clinic, and around 50 percent respondents have delivered at home. On the other hand 94.2 percent uneducated women delivered at home. It is found that the educated respondents are more careful than uneducated respondents for the place of delivery.

Table 21: Place of delivery by level of respondents' education.

Place of delivery	Primary		Secondary		Higher		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hospital	2	4.1	9	33.3	21	65.6	32	29.6
Health post	6	12.2	9	33.3	7	21.9	22	20.4
Private clinic	-	-	1	3.7	-	-	1	0.9
Home	41	83.7	8	29.6	4	12.5	53	49.1
Total	49	100	27	100	32	100	108	100

Source: Field Survey, 2009.

The above table shows that with increase in the level of education the risks of respondents at the period of delivery decreases. It can be said that with increase in the level of education, quality of delivery center can also be increased. Out of the total number of 108 literate respondents, 49 completed primary level. Among them 83.7 percent delivered at home. Less number of respondents have delivered at the hospital and health posts. Like wise the number of respondents who delivered at home decreased while there is high level of education. Among 27 respondents who have completed secondary level 33.3 percent have taken service from hospital and health post each. 29.6 percent respondents received delivery service at home. Less number of respondents (12.5 percent) who have attained higher level of education delivered at home out of 32 respondents.

5.3.2: Place of Delivery by Educational Attainment of Husband.

There is a strong relationship between husband's education and delivery place. The safe delivery place is determined by the level of husband education.

Table 22: Distribution of place of delivery by level of husband's education.

Place of delivery	Primary		Secondary		Higher		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hospital	1	2.7	7	15.6	25	51.0	33	25.2
Health post	3	8.1	11	24.4	10	20.4	24	18.3
Private clinic	-	-	-	-	1	2.0	1	0.8
Home	33	89.2	27	60.0	13	26.5	73	55.7
Total	37	100	45	100	49	100	131	100

Source: Field Survey, 2009.

Table 22 presents the information of place of delivery center by husband's education. The data shows that the quality of safe delivery place is increased with the husband education. Husband having higher level of education have significant contribution in delivering their baby at hospitals. It can be seen in table that more than 50 percent women delivered at hospital. The percentage of women who delivered at home is 89.2 percent, whose husbands have completed primary level of education. Like wise, 60 percent women delivered at home, whose husbands have completed secondary level of education. But in aggregate situation more than half birth is taking place at home. One in every four respondents are delivering at hospitals.

Table 23: Distribution of pregnancy loss by place

Place	Pregnancy loss					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Hospital	1	3.7	32	24.1	33	20.6
Health post	1	3.7	23	17.3	24	15.0
Private clinic	-	-	1	0.8	1	0.6
Home	25	92.6	77	57.9	102	63.8
Total	27	100.0	133	100.0	160	100.0

Source: Field Survey, 2009.

Table 23 depicts that out of total 160 respondents, 27 women have lost pregnancy. Among them more than 92 percent women have lost pregnancy, who have delivered at home. On the other hand, 133 respondents did not have pregnancy loss experience. Women who received delivery service at hospitals and health posts have very few pregnancy loss experience (3.7 percent each).

5.3.3: Place of Delivery by Caste/Ethnicity

Table 24: Place of delivery by caste/ethnicity

Caste	Hospital		Health Post		Private Clinic		Home		Total	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Brahmin/ Chhetri	24	34.8	9	13.0	1	1.4	35	50.7	69	100.0
Janajati	8	11.4	9	12.9	-	-	53	75.7	70	100.0
Dalit	1	4.8	6	28.6	-	-	14	66.7	21	100.0
Total	33	20.6	24	15	1	0.6	102	63.8	160	100.0

Source: Field Survey, 2009.

Abundant respondents are delivering their babies at home. All caste/ethnic group of the study area are using home as a place to conduct delivery case. In overall context, Janajatis are seen as a group which is still preferring home as a place of delivery (75.7 percent) followed by Dalits (66.7 percent) and Brahmin/Chhetri (50.7 percent). Very few respondents are going private clinics

for delivery case (1.4 percent). Hospital is second place for Brahmin/Chhetris to seek delivery service after home (35 percent). Janajatis and Dalits are taking health posts as a place to seek for delivery service (13 percent and 29 percent respectively). The information shows that Dalits have less access to hospital than Janajatis and Brahmin/Chhetri.

5.4: Knowledge about Postnatal care.

To assess the extent of postnatal care utilization, respondents were asked whether they had received a health check after the delivery for the last birth in the five years preceding the survey, when they received the first check, and what type of health provider they saw for postnatal care. A large proportion of maternal and neonatal deaths occur during the 24 hours following delivery. In addition, the first two days following delivery are critical for monitoring complications arising from the delivery. A postnatal care visit is also an ideal time to educate a new mother on how to care for herself and her newborn.

5.4.1: Postnatal Care After Delivery.

Table 25: Distribution of postnatal care after delivery

Days after delivery	Number	Percent
1	2	1.3
2	6	3.8
3	50	31.3
7	17	10.6
21	1	0.6
24	1	0.6
No checkup	83	51.9
Total	160	100.0

Source: Field Survey, 2009.

One in two mother (52 percent) did not visited for post natal checkup at all. Most respondents who have visited service delivery point for post natal checkup are 31.3 percent, who have visited after 3 days from the day of delivery. Only one respondent visited for post natal check up after 21 and 24 days each after the delivery had taken place. Only 1.3 respondents visited health checkup centre after 1 day of delivery.

Table 26: Distribution of respondents according to times receive postnatal checkup within 42 days

Times received postnatal checkup within 42 days	Number of respondents	Percent
One time	5	3.1
Two times	19	11.9
Three times	56	35.0
No check up	80	50.0
Total	160	100.0

Source: Field Survey, 2009.

The women should visit health service delivery points for three post natal check ups within 42 days after delivery. One in two respondents (50 percent) received and another one (50 percent) did not received postnatal check up. Among respondents who seek and received post natal check up (80 respondents) 70 percent visited three times, 6 percent visited only one time to receive postnatal checkup after delivery. 24 percent respondents received postnatal checkup two times.

5.4.2: Place of Postnatal Checkup

Table 27 : Distribution of respondents by place of postnatal checkup.

Place of received PNC	Number	Percent
Hospital	2	2.6
Health post	26	33.8
Sub-health post	32	41.6
Private clinic	17	22.1
Total	77	100.0

Source: Field Survey, 2009.

In study area health post and sub health posts are accessible and affordable also. So most of the respondents received postnatal checkup at sub-health post and health post, 42 percent and 34 percent respectively. Very few respondents (2.6 percent) received postnatal checkup from hospital, while 22 percent respondents received postnatal checkup from private clinic.

5.4.3: PNC by Literacy Status and Educational Attainment of Respondents

Table 28 : Postnatal checkup by literacy status.

Literacy Status	Postnatal Checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Literate	69	63.9	39	36.1	108	100
Illiterate	8	15.4	44	84.6	52	100
Total	77	48.1	83	51.9	160	100

Source: Field Survey, 2009.

Table 28 shows that, among literate respondent 64 percent receive postnatal check up while in illiterate population only 15 percent received that service. Most illiterate respondents do not seek and receive postnatal checkup (85 percent). There is lot more to do because only 48 percent are receiving postnatal checkup.

While segregating the literate population into three broad education group, the table 27 shows that respondents with higher level of education have better postnatal checkup practice, which is almost 97 percent. Only 3.1 percent respondents did not received post natal check up even attaining higher studies. The receiving trend of post natal checkup is decreasing while the level of education is decreasing. Among secondary level completed respondents 85 percent received this check up, while only 31 percent respondents with primary level of education received post natal check up.

Table 29 : Postnatal checkup by level of education of respondent

Level of education	Postnatal Checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Primary	15	30.6	34	69.4	49	100
Secondary	23	85.2	1	14.8	27	100
Higher	31	96.9	1	3.1	32	100
Total	69	63.9	39	36.1	108	100

Source: Field Survey, 2009.

5.4.4: PNC by Literacy Status and Educational Attainment of Respondent's Husband

In patriarchal society, the attitude and perception of a male in family plays important role in determining the access to post natal service. Therefore the situation of postnatal checkup with reference to the educational status of husband is discussed below.

Table 30 : Postnatal checkup by literacy status of husband.

Husband's Literacy	Postnatal Checkup		
	Yes	No	Total

Status	Number	Percent	Number	Percent	Number	Percent
Literate	75	57.3	56	42.7	131	100
Illiterate	2	6.9	27	93.1	29	100
Total	77	48.1	83	51.9	160	100

Source: Field Survey, 2009.

Table 30 shows that the respondent whose husband is illiterate, has not visited any health service delivery points, to receive health services after delivery (93 percent). But nearly one in two (43percent) respondents did not received post natal check up, even their husband's are literate. Among illiterate husbands only 7 percent sent/brought their wife (respondents) to receive post natal checkup, while in literate population 57 percent utilized the post natal checkup service in study area. Similarly postnatal checkup is seen increasing as level of education of husband increases and vice versa while did not receiving the checkup. 10 percent husband, who have attained higher level of education, aren't found cautious on receiving postnatal checkup for their female counterpart, while the statistics show 51 percent and 76 percent for secondary and primary level respectively, which is shown in table 31.

Table 31: Postnatal check up level of education of husband.

Husband's Level of education	Postnatal Checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Primary	9	24.3	28	75.7	37	100
Secondary	22	48.9	23	51.1	45	100
Higher	44	89.8	5	10.2	49	100
Total	75	57.3	56	42.7	131	100

Source: Field Survey, 2009.

5.4.5: PNC by Occupation of Respondents

According to occupation, in study area, the postnatal checkup is found varying. In study area nearly 91 percent respondents are involving in agriculture sector. Among respondents who are involved in agriculture, more than half 57 percent did not received postnatal check-up. The checkup receiving pattern is perfect (100 percent) among respondents who are doing their service in private and government sector and in trade and industries.

Table 32: Postnatal checkup by occupation of respondents

Occupation	Postnatal Checkup

	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Agriculture	62	42.8	83	57.2	145	100
Private Service	1	100	-	-	1	100
Government service	13	100	-	-	13	100
Trade/Industries	1	100	-	-	1	100
Total	77	48.1	83	51.9	160	100

Source: Field Survey, 2009.

5.4.6: PNC by Caste/Ethnicity of Respondents

The table 33 shows the percentage distribution of respondents by caste. Most of the Brahmin/Chhetri (62 percent) have taken post natal check up than Janajati (36 percent) and Dalit (43 percent). On the other hand, less number of Janajati and Dalit have received postnatal checkup as comparing with Brahmin/Chhetri. Out of the total 160 respondents, 48.1 percent have received postnatal check up and 52 percent did not received postnatal checkup. In total number of Dalit, 57 percent did not received postnatal checkup.

Table 33: Postnatal checkup by caste/ethnicity of respondents

Caste	Postnatal Checkup					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Brahmin/chhetri	43	62.3	26	37.7	69	100
Janajati	25	35.7	45	64.3	70	100
Dalit	9	42.9	12	57.1	21	100
Total	77	48.1	83	51.9	160	100

Source: Field Survey, 2009.

5.5: Male Participation in Safe Motherhood

This section describes the crucial participation of male to bring better result in safe motherhood. It examines the responsibilities of male during the pregnancy period of their female counterparts (wives) and its successful parturition. On the other hand husband as well as household support including special nutritious food, money manage and help to daily work in the period of pregnancy and delivery is also discussed in this section.

5.5.1: Male Participation in the Period of Complication

Male can play pivotal role in society. In the rural area of the country, most of the women deliver their babies without skilled assistance, helped only by untrained traditional birth attendants or family members. Male can help by arranging for a trained attendant to be available for the delivery and by paying for the services. They also can arrange ahead of time for transportation and can buy supplies, if

necessary. In our context of Nepal, 82 percent mothers deliver their babies at home with skilled birth attendants and 69 percent of women die at home.

Table 34:Distribution of participating person in the period of complication

Participation person	Number	Percent
Husband	133	83.1
Mother in law	8	5.0
Other family member	15	9.4
Relatives	4	2.5
Total	160	100.0

Source: Field Survey, 2009.

By observing table 34, husband are the closer helpful person for the respondents in this study. Most (83 percent) husband were involved during the complication period of women, while 9.4 percent other family members involved. Mother in law are less responsible (5 percent) because of their supreme command in the society on their sister in law. This kind of participation bounded by a strong cultural factor. Therefore, male participation is more reliable than other person during this period. Likewise, most of the husband were involved to support money manage and daily work (8 and 92 percent respectively) out of 157 supporters in problem of the period.

5.5.2: Encourage Women to get ANC Service

In the study area, several determining factors were found, which help to encourage or discourage the antenatal care visit over time. Among them the cultural, and demographic, social, and religious factors are more responsible.

Table 35:Distribution of person who encouraged to get ANC service

Encourage person	Number	percent
Husband	60	60.6
Neighbors	39	39.4
Total	99	100.0

Source: Field Survey, 2009.

Table 35 shows that the husband support is more effective than the other person to receive ANC service from health centre. Out of the 99 ANC visitors 61 percent husband encouraged their women to take ANC service. Likewise 39 percent respondents were encouraged to take ANC service during the pregnancy period by their neighbors. These person were educated and sociable person. The role of father in law and mother in law is not effective during the problem of period because of strong cultural practices and inadequate knowledge on crucial stages of expectant women.

5.5.3: Male Participation in Place to Seek Help First

In many patriarchal societies males are found as final decision maker and gate keeper for women. This kinds of decisions can shape the future of the whole family. When complication arise, the decision can be a matter of life or death. So that male protect the lives and health of women in the most rural areas of Nepal.

Table 36:Distribution of decision making person to go to the health centre in the complication period.

Decision making person	Place to seek help first									
	Hospital		Health post		Sub health post		Private clinic		Total	
	N	%	N	%	N	%	N	%	N	%
Husband	23	33.82	36	52.94	2	2.94	1	1.47	62	91.18
Mother in law	-	-	1.00	1.47	-	-	-	-	1.00	1.47
Father in law	-	-	-	-	1.00	1.47	-	-	1.00	1.47
Yourself	-	-	2.00	2.94	2.00	2.94	-	-	4.00	5.88
Total	23	33.82	39	57.35	5	7.35	1	1.47	68	100.00

Source: Field Survey, 2009. N= Number, %= percent.

According to table 36, all women who visited hospital to seek help while they have complications, their husband made decision to receive service from that place. Similarly 53 percent respondents were sent health post to receive help or service by their husband and 3 percent and 2 percent to seek heath service in sub-health post and private clinic respectively. Father-in-law and mother-in-law have insignificant contribution in seeking the help while there is a complication. Only one respondent received help or service while she had complications in health post and sub-health post by their mother-in-law and father-in-law respectively. 6 percent respondents visited health post and sub-heath post (3 percent each) with decision of their own.

CHAPTER 6

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1: Summary of the Findings.

The objectives of the study has been carried out to examine the knowledge about ANC, DC and PNC in reproductive age (15-49) group of women, and to examine the role of male during the pregnancy and delivery period in Phulbari VDC, Taplejung District. This study is based on primary data using purposive sampling method. Two sets of questionnaire (household and individual) were used for data collection. In the study area, there are nine wards; these wards are divided into five clusters. Cluster number 2 and 3 were the study area by using lottery method. The total 160 households were included in this study. From each household only one respondent was enumerated who have experienced at least single delivery within five years preceding this survey. The information of questionnaire were edited, coded and entered into SPSS program. This software presents the frequency tables and cross tables which are used to describe demographic and socio economic characteristics. The data analysis is done by considering questionnaire in order to fulfill the objective.

The main findings obtained by the analysis of data collected from the survey are as follows.

6.1.1: Household Characteristics

- Among the 160 households, 61 percent household are following Hindu religion, 23 and 16 percent household are following Kirat and Buddhist religion respectively.
- Radio is the main source of information. Out of total households 99 percent households have access for listening to the radio.
- Out of 160 household, 91 percent households are drinking pipe water and other remaining 9 percent are drinking pond/ lake water.
- Out of the household, 59 percent household have used kachhi toilet and 38 and 3 percent households have used semi-concrete and concrete toilet respectively.

6.1.2: Respondents' Background Characteristics

- Among the 160 respondents, 68 percent are literate and 32 percent are illiterate. Out of 160 husbands, 82 percent are literate and only 18 percent are illiterate.

- The mean age at marriage of women is 19 years and the husband mean age at marriage is 22 years. Out of 160 respondents 81 percent have got married before 20 years and 53 percent husband have got married after 20 years.
- The average number of CEB is 3.3 in the study area.
- The main occupation of the respondents is agriculture where 91 percent respondents are involving in agricultural sector, while other remaining 8 percents are involved in government service and less than 1 percent are involved in trade/industries and private service.
- Out of 160 husband 61 percent are involving in agricultural sector, while other remaining 20 percent are engaged in government service, then 16 percent have gone foreign country. More than 1 percent husbands are involved in trade/ industries and private service.

6.1.3: Knowledge about Safe Motherhood

- Out of 160 respondents 81 (51 percent) respondents have knowledge about safe motherhood. Among them 48 percent respondents heard about safe motherhood through health workers and 37 percent through radio and 12 percent heard through newspaper, while remaining 1 percent heard about safe motherhood from TV and their husband. 79 (49 percent) respondents have no knowledge about safe motherhood.
- Among total numbers of 160 respondents, 68 (43 percent) respondents have knowledge about antenatal care. 73 (46 percent) respondents have no knowledge about antenatal care, and 15 (9 percent) respondents know TT immunization as an antenatal care. More than 1 percent respondents know antenatal care as taking iron tablets and vitamin 'A'.
- In total numbers of 160 respondents, 99 (62 percent) respondents have taken ANC service. Most of them are taking ANC service from sub-health post and health post (50 and 43 percent) respectively. These kinds of services are provided by health assistant (53 percent) and MCHV (40 percent). Only 7 percent respondents have taken ANC service from district hospital through doctor and nurse.
- Out of the 99 ANC visitors, 60 (61 percent) respondents are encouraged by their husband and 39(39 percent) by neighbors to take ANC service.
- The regular ANC 68 (43 percent) visitors, 62 (91 percent) respondents are going health centre with the support of husband. 6 percent respondents decided themselves to go there and more than 1 percent respondents were supported by their father-in –law and mother-in-law.
- Out of 160 respondents 102 (64 percent) respondents have delivered at home and 58 (36 percent) respondents have delivered at health centre. (Hospital, heath post, private clinic).

- Most of the respondents (50 percent) were bathed their newly born baby with in one hours. While remaining (3 percent) respondent were bathed their baby within 24 hours.
- Out of 160 respondents 77 (48 percent) respondents received postnatal checkup, while 83 (52 percent) respondents did not received the checkup.
- Out of 77 PNC visitors, most of them are receiving service from health post and sub-health post (34 and 42 percent) respectively.
- Out of 160 respondents, 80 (50 percent) respondents have received ANC service within 6 weeks(42 days), most of the respondents 56 (35 percent) have received 3 times PNC service.
- Out of the 160 respondents, 157 (98 percent) respondents have support of their family male members during the pregnancy and delivery period.
- Out of 157 respondents most of the 84 percent husbands were stayed at home with their women during pregnancy and delivery period,

6.2: Conclusions

Male participation in safe motherhood is burning issue in the world. To protect women's lives, from possible disaster during prenatal and postnatal period male participation is crucial. Men can help to protect the lives and play role for good health of women. Male participation on antenatal checkup is essential for women and their new born baby's health.

Male participation on delivery and postnatal checkup is also one of the important and essential components for the reduction of maternal morbidity and mortality. However male participation is not satisfactory, because of socio economic and cultural factors.

Awareness program, including information, education and communication is very necessary to increase male participation in safe motherhood. Especially Nepalese government, INGOs, NGOS and other private sector most give the priority on these subject matter otherwise it has possibility of being greatest challenge for future.

This study conducted to find out the male participation in safe motherhood. Study found that education, occupation and communication of females directly affects the safe motherhood practice. Out of the total respondents, 51 percent have knowledge about safe motherhood, and 49 percent respondents have no knowledge about safe motherhood.

Male participation in ANC checkup visits and delivery care is high compared with postnatal checkup visits. So the PNC is the serious problem of the study area.

6.3: Recommendation

Besides socio economic, culture and demographic factors knowledge on maternal healthcare and its services, accessibility to such services, motivation for care, communication and exposure to the media play important role in the male participation in safe motherhood and effort to improve health status of women during pregnancy, delivery and after delivery period. The knowledge can be improved through incensement of the socio-economic status of people including education status of women, women empowerment, employment and power for female as their right to household decision making. Similarly for long term strategies the more accessibility of services up to grass root level through either government sector or other non-government sector or from private sector would also be helpful to meet the targets formulated by national policy makers and planners. The following recommendations are made on the basis of the finding of the study.

- It is found that the knowledge in safe motherhood is not sufficient which is always problematic. So special information, education, communication and other programme should be launched to circulate sound knowledge on safe motherhood.
- Health status of women is not completely well in the study area. So the accessible, affordable and acceptable primary health care facility should be launched for the improvement of the health status of women.
- Large number of women are unemployed; and thus having financial problem for pre-natal and post-natal checkup. So the educational, especially vocational training program should be launched to increase women literacy and to reduce unemployment problem.
- Large number of women are out of antenatal checkup practice. Therefore especial awareness program could be effective to increase ANC checkup practice.
- Male participation in postnatal checkup is not satisfactory. So to increase the male participation in PNC the awareness and other attractive program could be useful in the study area.
- It is essential to increase male participation in safe motherhood to ensure the health status of women and to reduce maternal mortality and morbidity.
- Most of the women 102 (64 percent) deliver at home out of total respondents. Which is unhygienic and unsafe. So to have safe delivery the

accessible, acceptable and affordable delivery facility should be established including awareness programme.

- Women's role in decision making was found to be insignificant. So, educational, occupational, and participatory programme with legal commitment should be launched to increase women empowerment and decision making power.

6.4: Recommendation for Future Research.

- This research was limited only in Phulbari VDC a rural area. Thus, it doesn't reflect the reality of urban areas so such types of research should be done on both rural and urban areas of the country.
- Data are collected mainly on female. So such type of research should be done including both sexes in national scale.
- The sampling unit of the study is very limited. Study should be done increasing the sampling units.

Appendix

Tribhuvan University
Central Department of Population Studies
Kirtipur, Kathmandu

Male participation in Safe Motherhood : A study of Phulbari VDC, Taplejung, Nepal

Section 'A' Household Characteristics

Ward No……., Cluster No……, Household No……

1. Household Schedule

S.no.	Name	Relation to the head of the house-hold	Sex	Age	Marital Status	Occu-pation	Literacy	Caste-/ethnicity	Religion	Currently married women who have given birth and have children below five years of age
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										
4										
5										
6										
7										

Codes for question no. 3

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW OR SISTER-IN-LAW
10 = NIECE/NEPHEW
11 = CO-WIFE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/STEPCHILD
14 = NOT RELATED
98 = DON'T KNOW

Codes for question no. 4

01=MALE 02 = FEMALE

Codes for question no.6

01 =UNMARRIED 02 = MARRIED 03 = WIDOWED 04 = DIVORCED05 = SEPARATED 06 = DON'T KNOW

Codes for question no.7

01 = GOVERNMENT SERVICE 02 = NON-GOVERNMENT SERVICE 03 = TRADE/INDUSTRIES
04 = AGRICULTURE 05 = FOREIGN RECRUITMENT 06 = OTHER

Codes for question no.8
01 = LITRATE 02 = ILLITERATE
Codes for question no.9
01 = BRAHMIN HILL 02 = CHHETTRI 03 = RAI/KIRAT 04 = UNTOUCHABLES 05 = GURUNG 06 = MAGAR 07 = TAMANG 08 = OTHER
Codes for question no.10
01 = HINDU 02 = BUDDHIST 03 = KIRAT 04 = CHRISTIAN 05 = MUSLIM06 = OTHER

2. Household Background

1. What is your source of drinking water?

Piped water…….1 Tube well……2

Pond/Lake……3 others……. ……..…..4

2. What types of toilet does your family use?

Concrete…….1 Semi Concrete……2

Kachhi……3 Other……..…….4

3. What is the source of your information and communication?

Radio…….1 TV……..……2

Telephone/Mobile……..3 Magazine……..……4

Other…….……5

4. Does your family have own cultivated land?

Yes…….1 No…….2 → 6

5. How many?

Ropani……..1 Aana……2

Bigha…….……3 Kattha……4

Dhur……..5

6. How old are you?

In Completed years……

7. In what month and year were you born?

Year……Month…….

8. What is your marital status?

Unmarried……..1 Married ……2

Divorced…….3 Separated……..4

Widowed ……..….5

9. What was your age when you got first married?

Completed years…….

10. What was your husband's age when you got first married?

Completed years……

11. What was your age of your first menstruation?

Completed years…….

12. Are you literate?

Yes……1 No…….2 ⟶ 14

13. What is your level of education?

Completed grade.....

14. What is your occupation?

Housewife……..1 Private service……..2

Govt. Service…….3 Trade/Industries…….4

Agriculture…….5 Other……6

15. Did your husband ever attended school?

Yes……1 No…….2 ⟶ 17

16. What is your husband's level of education?

Completed grade.....

17. What is your husband's occupation?

Private Service……..1 Govt. service……..2

Trade/Industries…….3 Agriculture…….….4

Foreign recruitment…….5 Other…….….6

18. How many times you became pregnant?

Times.....

19. What was your age when you gave child birth?

Completed years.....

20. Have you ever experienced pregnancy loss?

Yes……1 No…….2 ⟶ 22

21. What times?

Times.....

22. Do you have experience of live birth?

Yes…….1 No……2 ⟶ 24

23. How many children are alive?

.....

24. Did you ever lost your children who were born alive?

Yes…….1 No……2 ⟶ 26

25. How many were died after birth?

.....

26. Who runs the household income and expenditures in your family?

Father in law……1 Mother in law……2

Yourself……..…..3 Husband ……..…..4

Other……....…5

SECTION 'B' KNOWLEDGE ABOUT SAFE MOTHERHOOD

27. Have you ever heard about safe motherhood?

Yes…….1 No……..2 ⟶30

28. How did you know about safe motherhood?

Radio……..….1 Neighbor/friends…….2

TV……..….3 Newspaper……..……4

Health/workers……5 Husband…….6

Other…… 7

29. What do you understand by safe motherhood?

Antenatal check-up……...1 TT immunization……2

Delivery care……3 Post Natal check-up…….4

Above all……5 Don't Know……..…..6

SECTION 'C' ANTENATAL CARE

30. What do you understand about ANC?

TT immunization…….1 Take iron tablet…….2

Vitamin 'A'……....3 above all……..4

Don't know……..…5

31. Did you received antenatal check-up?

Yes…….1 No……..2 ⟶ Section D

32. How many times did you receive ANC checkup for the period of pregnancy?

.....Time/s

33. Who gave the ANC services?

Doctor……..….1 Nurse……....2

Health assistant……..3 MCHV……..4

Other……..…..5

34. After being pregnant in which month did you visited first for ANC service?

.....Month/s

35. Where did you go to receive ANC checkup?

District hospital……..1 Health post……..2

Sub Health posts…….3 Private clinics…….4

Other…….……5

36. What types of complication occur at the last time that you had problems?

Vaginal bleeding……..1 High fever……2

Loss of consciousness….2 Feeling of weakness…4

Nothing happened…5

37. Who encourage you to get PNC service?

Husband……1 Mother in law…...2

Father in law…….3 Neighbors……..4

Friends……..5 Others……6

38. Have you taken TT vaccine during the period of pregnancy?

Yes……1 No…….2 ⟶ 40

39. How many times did you receive TT immunization?

Once…….1 Twice…….2

Didn't take……..…..3

40. Did you take iron tablets and vitamin 'A'?

Yes……1 No…….2 ⟶ 42

41. How many times? …..Day/s ….Week/s …..Month/s

SECTION 'D' : DELIVERY CARE

42. What kinds of preparation did you make beforehand for the delivery?

Save money……1 Arrange for transport……2

Found blood donor….3 Arrangement of Potter……4

Nothing…….5

43. Do you remember who remained first that the problem was serious enough to ask help?

Family members…..…..1 Husband……2

Health workers……..3 Your self……..4

Friends/Neighbor……5 Traditional faith healer...6

Don't remember…....7

44. Where did you go to seek help first?

Hospital…….1 Health post.……..2

Sub health post…..3 Private clinic…....4

Dhami Jhakri …….5 ⟶ 46

45. Who did the final decision to seek help?

Husband……1 Mother in law……...2

Father in law…….3 Yourself……4

Other.……...5

46. Where did you delivered your baby?

Hospital……...1

Health post……...2

Sub health post….3 ⟶ 51

Private clinic…….4

Home…….…..5

Other……6

47. Why didn't you deliver in a health facility?

Too much cost……1 facility not open……2

Too far/no transportation……3 poor service quality……..4

No female provider at facility….5 husband/family didn't allow….6

Other…….7

48. Did you use 'Safe Delivery Kit'?

Yes……..1, No……2, Don't know…….3,

49. When (name) was born, what instrument was used to cut umbilical cord?

New blade……1 Used blade……2

Knife……3 Hasiya……..4

Scissors……...5 Other……6

50. How long after delivery was (name) bathed for the first time?

Hours……, Days……Weeks……

51. Did you remember who were with you during the period of problem?

Husband……1 Mother in law…….2

Neighbors……..3 Other family members…….4

Relatives……....5 Other…….6

SECTION 'E' : POST NATAL CARE

52. What was / is your heath condition after delivery?

healthy……1 unhealthy……2

normal……3

53. How long after delivery did the first check take place?

Hours…….Days……Weeks…….No check-up at all… ⟶ 59

54. Where did you receive the last PNC check up?

Hospital……..1 Health post……..2

Sub health post…..…3 Private clinic…....4

Other……5

55. How many times did you receive a check up with six weeks (42 days) following the delivery of your last child?

……Time/s…..1 Not at all……..2

56. After delivery did you buy any iron/folic tablets?

Yes……..1 No…….2

57. How many days did you take the tablets?

Days…….. Weeks…... Months……

58. Have you fed your milk immediately for your baby?

Yes……1 No……2 ⟶ 60

59. How long after birth did you first put (name) to the breast?

Hours…… Days……, Weeks..

60. Was (name) given anything to drink other than breast milk?

Yes …1, No……2 ⟶ 62

61. What was given to drink?

Other women's breast ……1, Plain water……..…2

Glucose water……..……3 Fruit-juice……..….4

Others……..…..5

62. Did you eat especial nutritious food?

Yes……. No……. ⟶ 65

63. How often did you eat special nutritious food/fruit during your last/current pregnancy?

More than once a week……1

2-3 times a month…….2

Once a month……...3

64. During your last/current pregnancy, did you get the same, less or more food than usual?

Same…….1 Less……2

More ……..3

65. During your last/current pregnancy, did any family male member support you?

Yes……1 No……. ⟶ 67

66. What kind of supports?

Money management……..1 Contact to blood donor……2

Help to daily work……..3 Transportation management …..4

67. Where was your husband during pregnancy and delivery period?

At home with you……..……..1

Out of home within your country…….2

Foreign country…….……...3

Other…….……4

68. What is your view about your husband's help during pregnancy and delivery?

More satisfied……..…1 Satisfied……..……2

Normal……3 Dissatisfied……4

More dissatisfied……....5

69. Do you have any comment about this interview?

……

..

……

"**Thank you for your kind participation.**"

Namaste!!!

REFERENCES CITED

Acharya, B. 2007. "Men as partners in Maternal Health : A Discussion on Nepalese Context", *Population Magazine.* Vol. 5. Kathmandu: Population Students Society of Nepal (PSSN): 14-23

Central Bureau of Statistics (CBS), 2003, *Population Monograph of Nepal*. Kathmandu: National Planning Commission.

Central Bureau of Statistics (CBS), 2009. *Nepal in Figures 2009*. Kathmandu.

Central Bureau of Statistics. 2007. *Statistical Year Book of Nepal.* Kathmandu : Central Bereau of Statisticas.

Department for Economic and Social Information and Policy Analysis. 1995. *Population and Development.* Vol.1. New York : UN.

Family Care International (FCI). 2005. *Safe Motherhood : A Review.* FCI.

Kafle R. 2006. *Collected Material for Reproductive Health*. Kathmandu: Jupiter publishers and distributors.

Ministry of Health and Population (MoHP) [Nepal], New Era and Macro International Inc. 2007a. *Nepal Demographic and Health Survey 2006.*

Ministry of Health and Population (MoHP) [Nepal]. 2008. *A Reference Material on Population Studies in Health Sector.* Kathmandu: Nepal: Ministry of Health and Population, National Health Training Centre.

Ministry of Health (MOH), 1998. *Safe Motherhood Policy*. Department of Health Services.

Ministry of Health and Population (MOHP), 2007. *Nepal Population Report 2007*. Kathmandu : Population Division.

Ministry of Health and Population. 2005. *Annual Report.* Kathmandu : Department of Health Services.

Ministry of Health and Population. 2009. *Nepal Country Health Profile, 2009*. Nepal

Palikhe, A. 2002. "Knowledge and Utilization of Safe Motherhood Services", *Nepal Population Journal*. Volume 10., Kathmandu, Nepal : Population Association of Nepal (PAN): 91-98.

Park K. 2000. *Textbook of Preventive and Social Medicine*. Prem Nagar : Banarsidas Bhanot Publisher. India.

Pathak, R.S. 2007. "Men as Partner in Maternal Health". *Nepal Population Journal*. Vol.13. No.12. Kathmandu, Nepal : Population Association of Nepal (PAN): 1-5.

Pudasaini, S.P. 1994, "Safe Motherhood Challenges : The Global and Nepalese Perspectives". *Nepal Population Journal.* Vol.2-3. Kathmandu, Nepal : Population Association of Nepal (PAN).

Retrieved from "http://en.wikipedia.org/wiki/Taplejung_District"

Roth, D.M. and M.T. Mbizvo. 2001, "Promoting Safe Motherhood in the Community : A Case for Strategies That Include Men", *African Journal of Reproductive Health*. Vol.5. No.2. Women's Health and Action Research Centre (WHARC): 10-21.

RTI International, 2009. *Human Resource Strategy Options for Safe Delivery*. Research Triangle Park, NC, USA.

Shrestha, D.R. 2008. *Reproductive Health : National and International Perspectives.* Dhulikhel Municipality, Kavre, Nepal : Ms. Narayan Devi Sherestha.

UNFPA, 1995. "Reproductive Health and Family Planning" in Alex Marshall (ed.). *Report on the State of the World Population.* UK : NIPL. pp. 31-56.

UNICEF, 1996. *Situation Analysis of Children and Women of Nepal*. Kathmandu, Nepal.

World Health Organization (WHO). 2007. *Integrated Management of pregnancy and Child birth: Standard of Maternal and Neonatal Care*. Geneva: Department of Making Pregnancy Safer.