CHAPTER-1
INTRODUCTION

1.1 Background of the Study

Health is one of the most important factors for the fulfillment of human needs and improvement of the quality of life. A healthy person is always cheerful and can do full days work without exhaustion. Even poor man having good health can improve his living standard. So, the health of the people is considered to be the wealth of the nation.

Maternal health is one of the most important issues of reproductive health International Conference on Population and Development held in Cairo in September 1994 focused global attention on Reproductive Health in the ICPD document is defined as "A state of complete , physical, mental and social wellbeing and not merely the absence of disease or infirmity in all matters related to the reproductive system and its function and process and family planning programme is always contextual and combined with maternal health.

In the society, women play the important role of reproductive and productive responsibility women have child bearing power is a biological process which depends on women's physical state. Every mother faces complication of pregnancy and also pain at the time of giving birth.

In our country, most of the girls living in the rural areas have hard life because of inadequate food and nutrition they need for their health and development and the work load from house to field. In the absence of essential vitamin and minerals, this girl child is likely to be stunned. In this way early marriage and pregnancy leads to even women her health, physically and mentally weak, lack of knowledge, poverty cultural norms and values of the family makes her life a misery. She has to feel that she is nowhere, in this world and feels more frustrated. Inadequate prenatal and postnatal care lead to a low birth weight girls and child with very little chance to survive, many girls become women, wife and mother before their age many die before becoming a mother because of delivery complications and lack of good services ignorance. (Bhattrai, 2006:12)

Maternal health should be addressed to reduce not only maternal morbidity but also to ensure the real women empowerment. This is so, because the risk of dying of women from complication of pregnancy is 1 in 20 in developing countries compared to 1 in 1000 in developed countries (WHO, 1996). Similarly, (MOH, 2002) has made estimation showing the fact that there are 415 maternal deaths per lakh live births. In developing countries, the figure is 480 and in developed countries. It is only 24. This fig. reflects a women's risk of dying each time she become pregnant because women in developing countries bear many children and obstetric care is poor and their life time risk of maternal is much higher almost 40 times higher than in developed world. (Parajuli, 2005: 7, 8)

Maternity care is the care of women during pregnancy, delivery and after delivery, (MOH, 1996). The provision of care for women during pregnancy, child birth and after child birth is essential to ensure health and successful outcome of pregnancy for the mother and new born infant. Maternal health care is the major contributing factors for reducing maternal mortality rate most of the privilege or the access to basic health care services during pregnancy and child birth,. many gives birth to child enhance with unhygienic surrounding and some of the delivery cases are assisted by noon.

The approach of safe motherhood has defined concept over maternity care. Those factor vary from economic to caste/ethnicity and even religion. Whenever, we discus the matter on the Nepalese ground realities depending on the socio-economic development. Nepalese society has its own cultural norms and practices that play effective roles in terms of maternal health management.

The national R.H. strategy in Nepal includes the following elements to make integrated health services available to all the people of Nepal. These includes family planning safe motherhood including new born care, child health, prevention and management of complication of abortion, STDs, prevention and management of infertility. (MOPE, 2000)

In the rural part of Nepal, many women lose their lives mainly because of lack of adequate access to quality maternal health care services and lack of awareness, i.e. information, education and communication (IEC) medical health care during pregnancy and delivery is not considered necessary rather, it is customarily taken as the natural

process of giving birth to women. In Nepal maternal health status is very low level, particularly rural women are deprived from medical health facilities their socio-economic status is low level, particularly rural women are deprived from medical health facilities their socio-economic status is low. They are facing low age at marriage illiterate, no income generating activities, high fertility, poverty gender discrimination various violence domestic physical psychological, sexual etc. and lack of awareness and empowered. (Sigdel, 2003)

Improving maternal health calls for better health facilities, logistic system and training to ensure appropriate and effective care. Another challenge is to overcome social barrier to access including improving men's understanding of their role and responsibilities in women's health. (UNFPA, 1999)

1.2 Statement of the Problem

Health is major problem in the world. Maternal health care is one of the burning health problems in our country. Mother in Nepal, every minutes of ever day women die due to the complications of pregnancy of child birth and many were suffer from illness or disability. Maternal mortality is estimated to 539 per 100000 live births. (Bhattrai, 2006). Everyday, twelve women die in Nepal due to pregnancy related causes poor maternal health not only affects maternal mortality, but also has a severe impact upon neonatal mortality rates. Every year many babies die late in pregnancy, at birth or soon after birth due to poor maternal care inadequate management of pregnancy related complications. This is the result of poor maternal health practices especially in the rural parts of country. (Lamichhane, 2005)

Maternal health care services are insufficient in Nepal due to various reasons like that low knowledge and access of health services as well as low status of women in the society, teenage pregnancies, low birth spacing, high birth order, excessive child earning tradition and other socio-cultural norms and values contribute effect on health status of mother.

The Nepalese society is very conservative on maternal health practices. Therefore in Nepal women's health has so far been neglected issues which directly related to mothers health. Women of Nepalese society have higher work burden compared to

men. But health facilities provide them are very less. They cannot exercise the economic power as well as they are not allow to take an active role in decision making process of the family. In fact, Nepalese pass through the situation of over work but less reward which has the negative impact on their health status. Especially an maternal health issues mother health is major burning issues in Nepal. Various type of private, governmental, voluntary health agencies have launched the programme for improving the maternal health status but still there is no satisfactory result found. So, it is needed to find out maternal health care problem and ways to solve these problem.

1.3 Objectives of the Study

The general objectives of this study is to access the maternal health services in the study area, however the following are the specific objectives of the study.

1. To find out the socio-economic and demographic characteristics of the family.
2. To identify the antenatal care, delivery care and postnatal care practices in the study area.

1.4 Significance of the Study

The major health Survey like demographic and health Survey does not provide the information for particular VDC. Also, there is no any specific study and information on maternal health care practices in this VDC. This study gives the status of maternal health care situation in the selected area. This study provides the basic information of the planners to launch the effective maternal health programme in this area. The study also help to formulate the safe motherhood policy and more useful for the effective implementation of future development and various maternal health programme for Samundra Devi Village Development Committee.

Therefore, this study provides that types of research which provide essential information for this community as well as government, it will also be helpful in implementing the effective maternal health programme.

This study is expected to provide basic information on maternal health as pregnancy care, delivery care and postnatal care practices among married women of reproductive age of selected ward of Samundra Devi VDC of Nuwakot, District.

1.5 Limitation of the Study

This study as being the small work of students as a thesis has several limitations. Some of the important limitations are as follows.

1. This study is limited to the currently married reproductive age women 15 to 49 years having at least one children under 5 years of age.
2. The study is limited in Samundra Devi VDC of Nuwakot so findings may not be representative for the others areas of Nepal.
3. This study do not provide the information knowledge of reproductive health, miscarriage, abortion and other relevant component.
4. In this study, only socio-economic and demographic variables considered in an analysis of maternal health such as education, occupation women's age at marriage, age at child birth are considered in the analysis of maternal health.
5. The data analysis is based on frequency distribution, percentage distribution and cross tabulation.
6. The sample selection and generalization may not be scientifically valid due to limited knowledge, time and resources.

1.6 Organization of the Study

This study is divided into 8 chapters. The first chapter deals with background of the study, statement of the problem, objectives of the study, significance of the study, organization of the study and limitations of the study. The second chapter includes literature review and conceptual framework. The third chapter deals with methodology describes study site and its justification, target population, research method, study variable and issues type of study, sampling method, sample size sampling frame and sampling process including criteria for sample selection. Sample size, sampling frame and sampling process, tools and techniques for information and lastly pre-testing the date collection tolls and date collection analysis and interpretation procedure. Chapter four describes the household characteristics and demographic characteristics including socio-economic and demographic characteristics of the respondents. The fifth chapter deals with maternal health care practices and condition in the study areas antenatal care practices including health check up during pregnancy, frequency of visit and time of first visit, care component, TT vaccination, Iron Tablet receiving women, counseling during antenatal visit etc. and sixth chapter deals with delivery care practices including place of delivery, assistance during delivery and use of clean delivery kits, problem after delivery and seventh chapter deals with postnatal care practices, includes postnatal care differential by education and caste ethnicity and finally, eighth chapter deals with summary, conclusions recommendation of the study.

Chapter: Two

Literature Review

Maternal Health Care Situation in Nepal

The Literature review is one of the most important aspect of any research. No study is possible without the review of Literature. It is a kind of tool, which provides a proper guideline and idea to the researchers in many studies. This literature review was done by collecting information from the Central Library, Department, Library of Family Planning Pulchowk. In this chapter presents the review of some selected studies related to maternal health care situation relevant to world and South Asia and specially focused in the context of Nepal.

The World Health Organization introduced the mother baby package in 1994 to improve maternal and neonatal health. The mother baby package describes each intervention needed to achieve safe motherhood in the short term. It represents the synthesis of activities at different level of the health care system and defines a basic set of health system interventions and activities that describes simple intervention needed before and during pregnancy, during delivery and after delivery for the mother and new born.(WHO, 1998)

Since, the Fourth World Conference on women, held in Beijing in 1995, women's health issues are increasingly being included in the development agendas. In the South-East Asia Region, women's health programme, promote the integration of a gender perspective in both WHO and national programmes. They also promote the development of Health policies. A technical unit for women's health was also established in the Regional office in 1997.(WHO, 2000). Both maternal and child survival are closely related to the availability and use of basic maternal health services. The MMR of women who have no received antenatal or delivery care services during pregnancy and child birth and the IMR of their children is much higher than those who have received care. (UNICEF, 1996)

Maternity is not a disease. It is the time of expectation and joy for a woman and her family and maternity care is one of the major components of reproductive health. However in some of the developing countries, woman has a say, "I am going to the sea

to fetch the baby, the journey is long and dangerous, I may not return. "This type of situation is often found in developing countries where pregnancy is taken as gamble and giving birth is life and death struggle and have to tolerate pregnancy and childbirth as a risky or dangerous journey. (Shrestha, Bidhya, 2004).

2.1 Global Situation of Maternal Health Care

There are an estimated 200 million pregnancies around the world every year. At least 40 percent of all pregnant women will experience some type of complication during their pregnancy. For about 15 percent this complication will be some potentially life threating and will require immediate obstetric care. (Shrestha, Bidhya, 2004)

Half a million mothers die each year from causes related to pregnancy, most of which could be prevented. Ninety nine percent of these deaths occur in developing countries. In sub-Saharan Africa, 1 woman in 12 dies from pregnancy related causes. A mother in the poorest parts of Asia or Africa is 200 times more likely to die during the births of her children than a mother in many developed countries. Many millions more world wide suffer from long-term complications including one million from fistulae causing leakage of urine or faces from only 40 percent of women have an assisted delivery.(Lankestar, Ted 2002: 187).

The life time risk of dying from pregnancy or child birth related causes is 1 in 20 in some developing countries, compared to 1 in 10000 in some developed countries. The age at which women begin or stop child bearing the interval between each birth to total number of life time pregnancies and socio-cultural and economic circumstances in which women live all influence maternal morbidity and mortality. At present approximately 90 percent of the countries of the world, representing 96 percent of the world population has policies that permit abortion under varying legal condition to save the life of a woman. however a significant proportion of the abortions carried out are self induced or otherwise unsafe, leading to a large fraction of maternal deaths or to permanent injury to the women involved maternal deaths have very serious consequences, within the family given the crucial role of mother for her children's health and welfare. the death of the mother increases the risk of the survival of her young children, especially if the family is not able to provide a substitute for the maternal role. (WHO, 1996: 18)

In the world health Report 2005 shows that out of total of 136 million births a year worldwide less than two thirds of women in less developed countries and only one third in the least developed countries have their babies delivered by a skilled attendant. The report says this can make the difference between life and death for mother and child if complications arises.

In some developing countries women risk of dying due to the maternal causes over the course of her life in as much as 300 times greater than the risk faced by the average women in developed country. For example, women in East Africa faces the highest risk of maternal death. 1 in 12 compared to country with only 1 in 3700 for women in North America (WHO, 1998)

2.2 South Asia Situation of Maternal Health

An estimated the 209,000 women die annually due to pregnancy and birth related complications in Bangladesh, India, Nepal and Pakistan. Most countries in this region failed to achieve the ICPD goal of MMR. To achieve the ICPD goal of MMR out 100 per 100,000 live births by 2005 all requires its reduction from highest 8 percent for Nepal to lowest 50 percent for Maldives and averaging 71.7 percent from rest of the SAARC countries. The maternal mortality ranges from 539 in Nepal to 440, in Bangladesh, 408 in India, 380 Bhutan, 340 Pakistan, 200 in Maldives and 23 in Sri Lanka (Chaudhary, 2000)

Malnutrition is very common among south Asian women. At least two fifth of pregnant women are anemic in most countries of the region. The proportion of pregnant women who are anemic ranges from 45-47 percent in Pakistan & India, to 58-62 percent in Bangladesh, Srilanka & Maldives & 73-75 percent in Bhutan & 52 percent of women Bangladesh are shortstatured & acutely malnourished. A large proportion of women were suffer from iron deficiency. About 80 percent of women in the reproductive ages were reported to be suffering from vitamin A deficiency in Nepal.(UNICEF, 1999, as cited in Chaudhary, 2000: 206) About 3 percent of adult female population suffered form night blindness, a disease related to Vitamin A deficiency in Bangladesh (Chaudhary, 2000:206)

Utilization of modern health facilities has remained poor both from antenatal and postnatal care in most south Asian countries. This is one of the reasons for current levels of high maternal and infant mortality rates. In most countries of the region, expect in Srilanka and the Maldives, a large proportion of pregnant mother didn't seek antenatal care. The proportion of pregnant mothers seeking antenatal care was highest for Srilanka, followed by the Maldives and India and lowest for Bangladesh. About one hundred percent of pregnant women in Srilanka received antenatal care, decline to 85 percent for the Maldives, 63 percent for India, 44 percent for Nepal, 30 percent for Pakistan and 29 percent for Bangaladesh.(Chaudhary 2000:212)

Tetanus toxoid (TT) shot coverage among pregnant women in south Asian countries. In most of Countries of the region expect in Nepal and Pakistan at least 7 in 10 pregnant women received TT shot Approximately, 42-54 percent of Pregnant Woman in Pakistan and Nepal received no Tetanus toxid shots. The propos 46 percent (Nepal) to 58 percent (Pakistan) to 73 percent (Bhutan) and averaging 80-84 percent for the rest of the countries in the region (Chaudhary, 2000: 213)

Only a Small Proportion of births in South Asian region are delivered at health facilities. For 6 to 9 percent of births in Bangladesh and Nepal, 13 to 22 percent of birth in Pakistan and India Delivery at home Continues to be the place where at least out of 10 babes were born in al most all countries of the region, except Sirlanka. In SirLank, nine out of 10 babies are delivered at health facilities. (Chaudhary, 2000: 214)

2.3 Maternal Health in the Context of Nepal

Rarely is a pregnancy greeted with indifference. When a pregnancy occurs, women, their partners and families most often experienced a mixture of joy, concern and hope that out come will be the best of all a healthy mother and a healthy baby. All societies strive to ensure that pregnancy is indeed a happy event. They do so by providing to promote health and cope with problems, by taking measures to avoid unwanted pregnancies and by making sure that pregnancies takes place in socially and environmentally favorable condition. Women relay on care and help from health services as well as on support system in the home and community. Exclusion, marginalization and discrimination can severely affect the health of mothers and that of their babies. (WHO, 2005)

Most pregnant women hope to give birth safely to a baby that is alive and well and to see it grow up in good health. Their chances of doing so are better in 2005 than ever-before not least because they are becoming aware of their rights. With today's knowledge and technology, the vast majority of the problem that threaten the world's mothers and children can be prevented or treated. Most of the million of untimely death that occur are avoidable as is much of the suffering that comes with ill health. A mother's death is a tragedy unlike others, because of the deeply held feeling that no one should die in the course of the normal process of reproduction and because of the devastating effect on her family. In all cultures family and communities acknowledge the need to care for mothers and children and try to do so to the best of their ability. (WHO, 2005: 1-9)

In many cases, relatives and particularly the husband and his direct relatives played a significant role when decision about seeking care had to be made similarly, the physical distance to a health facility often resulted in delay in reaching care, and even then women were often not attended to immediately up on arrival at a health facility. (Family Health Division, 1998)

Nutritional anemia is one of the major contributors to the high maternal mortality rates in Nepal. Women's iron requirement increases during pregnancy and in normal delivery some blood is lost additionally increasing the iron requirement. After delivery, women need to make up rapidly for the blood loss, for iron is required for breast feeding women with subsequent pregnancies are at greater risk. Adequate supplementation of iron food is required to raise hemoglobin level and ensure that women can cope with the risks of delivery when a women is anemic, even a relatively small blood loss during delivery can increase the risk of mortality. (UNICEF, 1996: 56-57)

Educated women are likely to marry later, likely to have their first pregnancy later and have fewer children. They are more likely to know about contraception and to attend for antenatal delivery and postnatal care. The increasing level of education of women helps to decrease the early age of marriage and the first pregnancy age is late for higher educated women than secondary and primary level educated mothers. (Subedi, 2001)

Low utilization of health services is a result of reliance on traditional forms of maternal health care on lack of awareness of the availability and importance of maternal health

care, difficult access to health services, especially in the hill and mountain areas, and in women's low confidence in health services due to lack of supplies inadequate staff and low proportion of female health workers at health post, sub-health post and hospital. (UNICEF, 1996, 63)

The majority of pregnant women faced health problems during pregnancy, but very few visited health posts. About 80 percent of deliveries were in a dark room on a dirty mattress. Nearly one fourth of Brahmin deliveries were in cowsheds More than 60 percent of all groups out the cord without sterilization of instruments. Details of child health care related to specific illness are also discussed. That's cultural information is considered important for appropriate planning, managing and implementing of community health based services. (Budhathoki, et.al, 1995: 57)

2.3.1 Antenatal Care

Both maternal and child survival are closely related to the availability and use of basic maternal health services. The MMR of women who have not received anti or delivery care services during pregnancy and child birth and the IMR of their children is much higher than those who have received care. Today, relatively few women utilize maternal health services in Nepal. According to governmental report only about 15.5 percent of pregnant women had made one antenatal services visit and about 2 percent had made more than one visit. (UNICEF, 1996: 63)

Antenatal care, however is an imperative if IMR and MMR are to be reduced. Expecting mothers can be encouraged to improve their nutrition and antenatal care and obstetric problem can in many cases be predicted, particularly of women who are too young for safe pregnancy. Women who do receive antenatal care in many cases have not been given tetanus toxid (TT 2+) (28 percent). (UNICEF; 1996: 58)

The mother in law were convinced about the importance of antenatal checkup the as evidenced by 35.4 percent response to 100 percent at the one year post test. In practice 35.4 percent of daughter in law had checkup during their last pregnancy to 66.7 percent at the one year post test. The awareness of mother in law in relation to danger sign and risk factor during pregnancy were found improved regarding the danger and risk of factor during pregnancy awareness of mother in law rather poor at the pretest

with 61.6 percent knowing no danger signs and 39.4 percent knowing no risk factors. (Thapa, M. 1993: 113)

Antenatal care can be more effective in avoiding adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. The national safe motherhood program guidelines in Nepal recommend at least four visit during pregnancy. The first visit should be made soon after the women realizes. She is pregnant. The 2nd visit should be made bet the fifth and the seventh months of pregnancy. The 3rd visit should be made at the beginning of the ninth month, and the last visit should be made the same week that the baby is due. Additional visit should be made if any problems or danger signs arise. In the 2001 NDHS, indicates Nepalese women who received antenatal care get It at a relatively late stage in their pregnancy and don't make the minimum recommended number of antenatal visits only one in seven (14 %) women make four or more visit during their entire pregnancy. (NDHS, 2001:142)

Three quarters 76 percent of women giving birth in the past five years received no formal antenatal care, 91 percent of women deliver their babies at home. Only 6 percent of deliveries were attended by a trained TBA. 19 percent of births were estimated by mother to be small or very small overall, 2.35 of babies were reported to be still born or died soon after birth. (NPC, HMG, 1998)

Pregnancy complications are an important causes of maternal and child mortality and thus providing adequate and proper information to expectant mothers about the danger signs associated with pregnancy and the appropriate action to be taken is an essential component of antenatal care. In NDHS, 2001 is shows about one in two mothers who received antenatal reported by that they were informed about the danger signs of pregnancy complication of had their weight measured. While one in seven had their measured as a past of their ANC checkup. Among various services that a woman receives during her antenatal checkup, measurement of blood pressure is important. It is encouraging to note that three in five women reported that their blood pressure was measured. Urine test were each done for about three in ten women who received antenatal care. The relatively low coverage for these two tests may indicate a lack of testing facilities in most of the health institutions (NDHS, 2001: 143).

Similarly, the preliminary reports of NDHS, 2006 shows that 72 percent women had their last birth protected against neonatal tetanus and 59 percent of all pregnant women received iron supplementation during pregnancy. The differences are marked among those living in urban locations as compared to those living in rural location. The likelihood of receiving tetanus toxid injection increases with educational attainment, from 63 percent among women with no education to 95 percent among mothers with S.L.C. and above.

A study using ANC services by rural women in the western and Middle Western hill. Region of Nepal have showed village health worker gives important contribution to use of ANC services out of 56 clusters, only 27, or 48 percent were visited every month by a village health worker. Therefore provision of a village health worker to each village development committee and increase in the frequency of their visit to committee should lead to large increase in service utilization. (Acharya, Laxmi Bilas, 2001:121)

According to NFHS, 1991 about 18.54 percent of women engaged in non-agricultural field took antenatal services from doctor or while this percentage is only 7.9 for women engaged in agriculture field. Similarly, 65 percent of women engaged in non-agriculture fields took antenatal services from Nurse/ANM while this percent is about 6.5 for women engaged in agriculture field. Women constituting TBA for antenatal services is almost same for women engaged in agriculture and non-agriculture field (1.8 % for agriculture 1.08 % for non-agriculture).

2.3.2. Delivery Care

The main objective of safe delivery is to protect the life and health of the mother and her child safe delivery is important component of efforts to reduce the health risk to mother and children is to increase the proportion al proper medical attention under hygienic condition during Delivery can reduce the risk of complications and infection that may cause death or serious Illness either to the mother of the baby or both. The National safe motherhood Program encourages women to deliver at facilities under the care of skilled attendants where it is feasible and ensures that facilities are upgraded and providers and ensures that facilities are upgraded and providers are trained to manage complications (NDHS, 2001)

In Nepal, Pregnancy and delivery are viewed as natural process, requiring no health care interventions. Child bearing women and their family only seek care when condition becomes life threatening. Nearly 92 percent of deliveries were at home and birth is considered to be polluting. Traditionally, child birth takes place in a cow shed and dirty materials are used for delivery and cord care. Strong religious, and cultural belief and practices regarding reproduction is deeply embodded in the tradition societies of Nepal. (Levitte et. al, 1998)

Proper medical attention and hygienic conditions during delivery can reduce the risk of complication and infection that can cause serious illness or even death of mother and baby. There are 44 percent of mother received antenatal are from doctor or nurse midwife for their most recent birth only 19 percent babies are delivered at a health facility. However it is encouraging to note that the proportion of babies delivered by a health professional over the last five years has increased by 72 percent from 11 percent in 2001. While proportion of babies delivered in a health facility increased by 54 percent from 9 percent in 2001. There are variation of delivery by residence on in two urban births have had a health professional in attendance during delivery compared to about one in seven rural births similarly in urban areas more than two babies delivered in health facilities compared to one in ten babies in rural areas are delivered in health facilities. (NDHS, 2006)

2.3.3. Postnatal Care

The aim of postnatal care is to ensure Physical and Psychological well being of Mother and the new born child in the first six weeks (42 days) after delivery. Postnatal care is uncommon in Nepal, 79 percent of mothers who delivered out side the health facility do not receive any postnatal checkup. But, less than one in five mothers receive postnatal care within the first two days after the delivery (NDHS, 2001: 153). In Nepal, most of the health problems of mother occur after delivery. It accounts 62 percent in urban area and 86 percent in rural area. (Bhattarai, 2006)

Postnatal care, utilization differs by place of residence, level of education, social norms caste and religion. Women in urban and Terai region are more likely to receive postnatal care within first two days of delivery than these from rural and other

ecological regions. Educated women have high tendency to receive postnatal checkup than uneducated women.(NDHS, 2001:153)

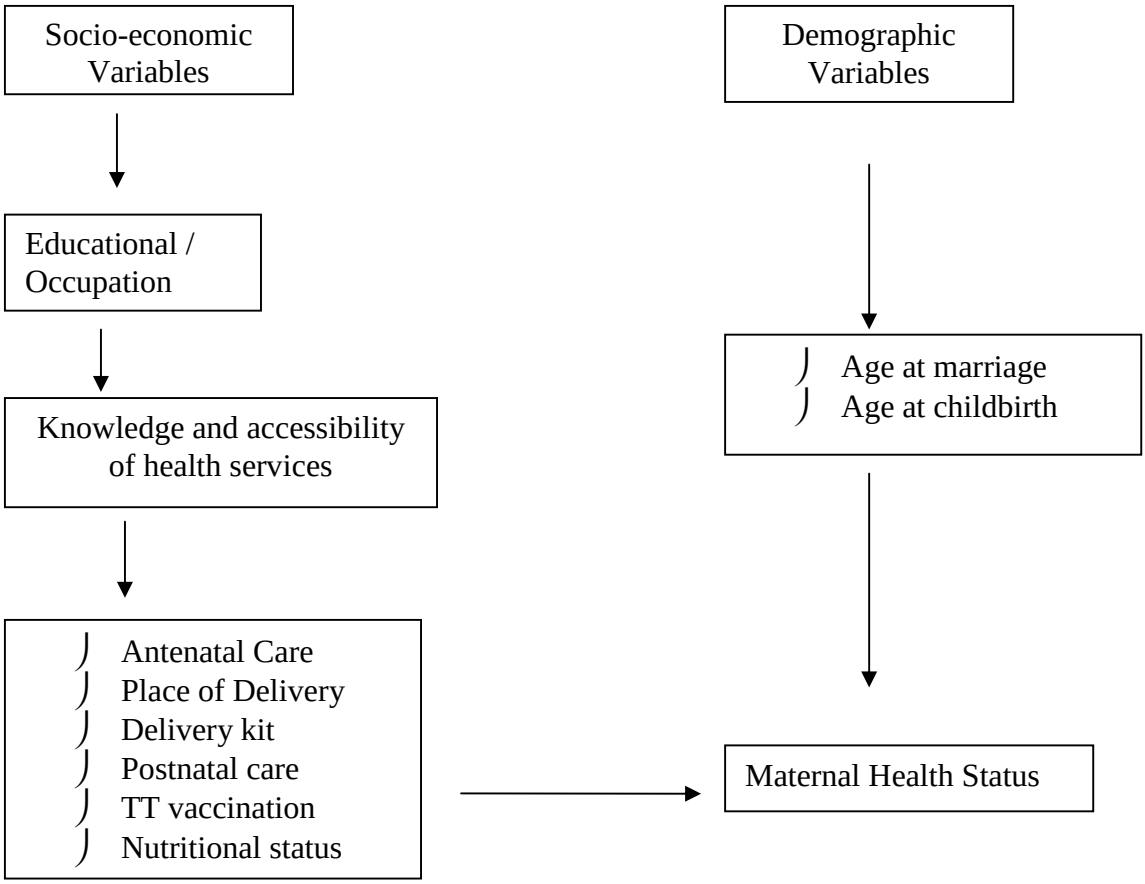
The large number of maternal and neonatal deaths occur during the 24 hours following delivery. So, the safe motherhood programs emphasize the importance of postnatal care recommending that all women receive at least two postnatal checkups and iron supplementation for 45 days following delivery. (DOHS, 2006 b cited in NDHS 2006). The postnatal care visit is an ideal time to educate a new mother on how to care for herself and her newborn. (NDHS, 2006).

One third (33 %) of women received postnatal care for their last birth. One in five women received postnatal care within four hours of delivery, more than one in four (27 %) received care within the first 24 hours and 4 percent of women were seen 1-2 days following delivery. Nineteen percent of mothers received postnatal care from an skill birth attendance and 3 percent of mothers received care from a health assistant, auxiliary health worker, MCHW or VHW. One in ten mothers received postnatal care from a traditional birth attendant. Mothers of first order births, mothers with S.L.C. and higher education, those from the wealthiest households and those in urban areas are more likely to have received postnatal care from an skill birth attendance than other mothers. (NDHS, 2006)

Conceptual Framework

The figure 2.1 shows the maternal health status in the study area. The maternal health is largely depend on the various socio-economic and demographic variables. The socio-economic variables mainly a education and occupation determine the knowledge and accessibility of the health services. There are vital component of maternal health as antenatal care, place of delivery, delivery kits and postnatal care TT vaccine, nutrition intake all these component depend on knowledge and accessibility of health services. Similarly there are also, demographic variable like age at marriage, age at child birth also directly related to maternal health, which play vital role maternal health status in the study area.

Figure 2.1: Conceptual Framework for Maternal Health Status



Chapter 3
Research Methodology

3.1 Study Site and It's Justification

The study is Samundra Devi VDC of Nuwakot, district. It Lies in the Bagamati Zone of Nepal . Geographically, It is Located in a hill and boarded by Kathmandu (Shivapuri National Park) in south, Sikkre VDC in East Bhadrutar and Mahakali VDC in North and Sunkhani VDC in West . The district has altogether 61 VDC among them one of the Samundra Devi VDC is selected for the study . This VDC is the near by the capital city but there are Various difficulties in accessing the health care services, the people of this VDC has hard life and they are deprived from the various knowledge of health care services .

3.2 Target Population

This study is carried out in the Samundra Devi VDC Ward no 4 and 5 of Nuwakot District. For instance, Brahmin, Chhetri, Newar, Gurung, Damai, Kami etc. caste of were selected. The targeted population of this study is currently married women of reproductive age (15-49) having child below 5 years. The study was carried out on the basic of primary data as well as secondary data. Primary data was obtained from questionnaire. Whereas, the secondary data was obtained from office of the VDC, sub-health post of the VDC, and from other sources, which are required for the research purpose.

3.3. Research Method

This type of study is based on quantitative method. For this purpose, first of all, the investigator was visited the responsible persons of the VDC to the purpose of study. Then the investigator visited the head of the households and eligible women in order to collect the data.

3.4 Study Variables and Issues

This study is mainly socio-economic Variable and demographic Variables in analysis

of maternal health. Socio-economic variables like education, occupation, demographic variables like women's age at marriage, age at child birth are considered.

3.5. Type of Study

Cross sectional descriptive research design has been applied on this study which includes mainly quantitative data.

3.6 Sampling Method

The study is based on primary data which is focused on the women of the reproductive ages. The study area is ward no. 4 and 5 which covers the 166 households of Samundra Devi VDC. There are altogether 166 households among them 73 women have child less than 5 years. So, all of 73 women are taken as respondents for the study.

3.7 Sample Size, Sampling Frame and Sampling Process Including Criteria for Sample Selection.

Total Population of the VDC is 3965 According to 2001 census the average family size of this VDC is 5.8. Total study area 4 and 5 ward covers 939 population with 166 household. Each household have been included from 166 households total 73 respondents is taken for the study, only a having child below 5 years.

3.8 Tools and Techniques for Information on Data Collection

Questionnaire is the main tool for data collection. Interview schedule is used for data collection technique. Two Kinds of questionnaire that is household and individual questionnaire was used for Interview.

1. **Individual Questionnaire**

   Individual questionnaire is developed to collect Information from target population of women of age group 15 - 19 who have at least one child of age less than 5 years.

2. **Household Questionnaire**

   The household questionnaire includes the information of socio-economic and

demographic characteristics.

3.9. Pre-Testing the Data Collection Tools

To make for more reliable questions, the questionnaire was pre-tested in the similar type of ten women of Sunkhani VDC of Nuwakot. Some modification was made on previous questionnaire before final print for field study. Some of them are pre-coded and some are open ended.

3.10 Data Collection, Analysis and Interpretation Procedure

The investigators consulted the VDC office of the study area. From there various types of information about the study are drawn. After visited each of respondent explaining to them the purpose of the study and requested them to give correct information without any doubt.

After collecting the data they are tabulated under different heading according to the objectives of the study. The data are analyzed on the basis of percentage, different Tables, and charts, bar diagrams and pie chart are used to processes and analyzed the data to interpret the result.

3.11 Validity and Reliability of Research

To increase the validity and reliability of information the following measures have been taken.

- All the data and information was collected under the close supervision of the researcher and researcher myself.
- Questionnaire was asked in simple Nepali language.
- Researcher have been completed all forms and rechecked. If any information was missed and doubtful, a revision was made for completion.

3.12 Data Management

The collected data and information were managed in different topic; such as socio-economic characteristics of the sample population, antenatal, delivery and postnatal care.

Chapter 4

Background

Characteristic of the Households and Respondents

In this chapter socio-economic and demographic characteristics are discussed. Socio-economic characteristics include household composition, educational attainment and occupational status. Similarly, demographic characteristics includes age-sex structure of household population marital status, age structure of respondents and age at marriage of respondents.

A. Household Characteristics

4.1 Socio - economic Characteristics

Socio-economic characteristics mainly deal with educational status, religion and occupational status of the study population.

4.1.1 Literacy Status of the Household Population

Education is very important factor which plays vital role in all aspects of human life including occupation income and living standards. It also influences the perception of an individual and maternal health care is closely related to the personal perception of mother. Many mother are unknown about their personal hygienic activities. This has a negative effect on attainment of maternal health care. Educated mothers are more aware of the issues of quality of health and children than that of no education.

Table 4.1 shows that the overall literacy status is better than national level of census, Out of total respondent 27.5 percent population have attained no education, by sex wise illiterate percentage for female is more than three times higher (40.3 percent) as compared to male (12.9).Out of the total highest percentage of the population (39.4 percent) have attained primary education among primary education female percentage(44.8 percent) is higher than male (33.3 percent). Highest percentage(38.5 percent) of the male has attained secondary education 10 percent of female has attained secondary education and only (9.8 percent) population found SLC and above among them only 5.0 percent female and 15.4 percent male found SLC and above education.

Table 4.1 Distribution of Household Population 6 yrs and above According to Literacy by Sex

Description	Male		Female		Total	
	Number	percent	Number	percent	Number	percent
No education	50	12.8	180	40.3	230	27.5
Primary	130	33.3	200	44.7	330	35.4
Secondary	150	38.5	45	10.1	195	23.3
SLC and above	60	15.4	22	5.0	82	9.8
Total	**390**	**100.0**	**447**	**100.0**	**837**	**100.0**

Source: Field Survey, 2007

4.1.2 Caste and Religion Status of the Household Population

Nepal is a multi - religions and multi-caste country. There is separate culture and practices in each religion and caste ethnicity. So, religions and caste also affects the knowledge on the perception and practice of maternal health. The information on religion and caste ethnicity of the respondent is shown in the Table 4.2.

As shown in Table 4.2, the majority of the respondent (95.8 percent) is Hindu followed by Buddhist 3.0 percent and Christian 1.2 percent. It also shows that the highest proportion of respondent (42.1 percent) are Chhetri other caste in studied population are Tamang (35.0 percent), kami 12.4 percent, Newar 5.4 percent, Damai 3.0 percent and Brahmin 2.4 percent. Similarly Table 4.2, also shows the religion status, only one caste Tamang (3.0) followed by Buddhism and another cast Kami follow the Christian. Mostly 95.7 of the total cast follow the Hinduism.

Table 4.2 Distribution of the Household According to Caste and Religion

Caste	Religions							
	Hindu		Buddha		Christian		Total	
	No.	percent	No.	percent	No.	percent	No.	percent
Brahmin	4	2.4	-	-	-	-	4	2.4
Chhetri	70	42.2	-	-	-	-	70	42.2
Tamang	53	33.3	5	3.0	-	-	58	35.0
Kami	18	11.3	-	-	2	1.2	20	12.0
Newar	9	5.4	-	-	-	-	9	5.4
Damai	5	3.0					5	3.0
Total	**159**	**95.8**	**5**	**3.0**	**2**	**1.2**	**166**	**100.0**

Source: Field Survey, 2007

4.1.3 Household characteristics.

From the various literature and other observational studies it is believed that the availability of household facilities such as electronic media of information (Radio, T.V., phone) plays important role for knowledge of any social issues, similarly, some other facilities such as toilet and pure drinking water (water supply) are also very important factors in this matter.

Table 4.3. provides the information on selected characteristics of the household. Out of total household 60.2 percent household have toilet facility, 90.3 percent household have radio and 4.8 percent have the telephone facility.

Table 4.3 Distribution of the Household by Housing Characteristics

	Yes		**No**		**Total**	
Household characteristics	**No.**	**Percent**	**No.**	**Percent**	**No.**	**Percentage**
Toilet	100	60.2	66	39.7	166	100.0
Radio	150	90.3	16	9.6	166	100.0
Telephone	8	4.8	158	95.1	166	100.0
Types of toilet	**Number**		**percentage**			
Pit	30		30.0			
Plush	15		15.0			
Open	30		30.0			
Bush field	20		20.0			
Other	5		5.0			
Total	**100**		**100.0**			
Source of drinking water.	**Number**		**percentage**			
Piped water	60		36.1			
Well/kuwa	70		42.2			
Surface/spring	36		21.7			
Total	**166**		**100.0**			

Source: Field Survey, 2007

Table 4.3 gives the information about toilet facility. Among the 166 household 60.2 percent have toilet facility and 39.7 percent donot have toilet facility. Respondents whose household have toilet facilities were further asked what type of toilet they have, then responses was about 30 percent have pit toilet and other 30 percent have open toilet and 20 percent have bush/field toilet and 5 percent have others toilet.

Similarly Table 4.3. also gives the information about sources of drinking water. In the study area, the main source of drinking water for the majority of the household 42.2 percent reported to be well/kuwa, 36.1 percent says piped water and 21.7 percent reported they use surface or spring water for drinking.

4.2 Demographic Characteristics

4.2.1 Age-Sex Structure of Household Population

Age and sex composition plays an important role in determining the population distribution. From the table 4.4 the total population is recorded as 937 of which 46.9 percent is male and 53.1 is female i.e. The sex ratio was 88.2 per 100 female which was lower than national sex ratio of 99.8 in 2001.(CBS, 2003:61). As shown in Table 4.4 the highest sex ratio is for age group 55-59 (187.5) and lowest ratio is for age group 70 - 74 (29).

Table 4.4 Distribution of Household Population according to Sex by 5 year Age Group

Age	Male		Female		Total		
	Number	Percent	Number	Percent	Number	Percent	Sex ratio
0-4	37	8.4	36	7.2	73	7.8	102.7
5-9	82	18.7	89	17.9	171	18.2	92.1
10-14	89	20.3	92	18.5	181	19.3	96.7
15-19	35	8.0	39	7.8	74	7.9	89.7
20-24	26	6.0	25	5.0	51	5.4	104.0
25-29	20	4.6	30	6.0	50	5.3	66.6
30-34	25	5.7	34	6.8	59	6.3	73.5
35-39	23	5.2	25	5.0	48	5.1	92.0
40-44	27	6.2	20	4.0	47	5.0	135.0
45-49	19	4.3	32	6.4	51	5.4	59.4
50-54	20	4.6	23	4.6	43	4.5	87.0
55-59	15	3.4	8	1.6	23	2.5	187.5
60-64	7	1.6	15	3.0	22	2.3	46.7
65-69	7	1.6	13	2.6	20	2.1	53.8
70-74	3	0.7	12	2.4	15	1.1	29.0
75+	4	1.0	5	1.0	9	1.0	80.0
Total	**439**	**46.9**	**498**	**53.1**	**937**	**100.0**	**88.2**

Source: Field Survey, 2007

According to Table 4.5 out of 937, population below 15 yrs 45.4 percent and old age population is 7.0 percent. The working age population is 47.59 percent. The dependency ratio in the study population is 110 percent which is higher than national figure i.e. 84.7 percent in 2001 (CBS, 2003). The male and female dependency ratio of the study population is 109.0 and 111.0 respectively.

Table 4.5 Distribution of Household Population According Sex by Broad Age Group

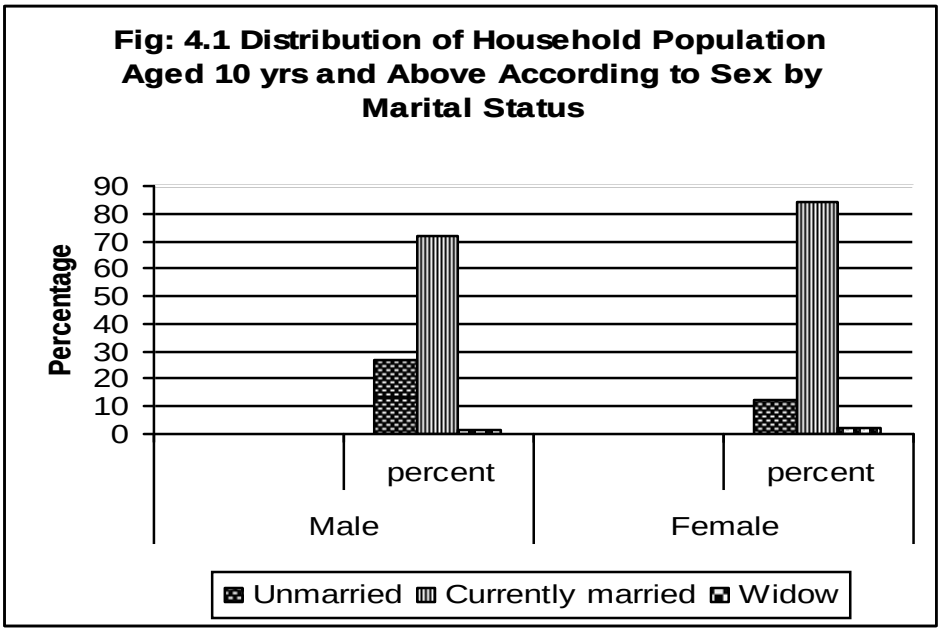
	Male		Female		Total	
Age group	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
0.14	208	49.0	217	51.0	425	45.4
15-59	210	47.0	236	53.0	446	47.6
60+	21	31.8	45	68.2	66	7.0
Total	**439**	**46.9**	**498**	**53.1**	**937**	**100.0**

Source: Field Survey, 2007

4.2.2 Marital Status of the Household Population

Figure 4.1 presents information about marital status of the household population in the study area. Among the total population of age 10 yrs and above 19.2 percent population is unmarried, 78.8 percent population is currently married and only 2.0 percent population is in widow status.

The percentage of unmarried male is more than two times higher (27 percent) as compared to female (12.6 percent). Similarly, the percentage of female widow is higher (2.4 percent) than that of male widow (1.3 percent), the percentage of currently married men and women are 72 percent and 84.5 percent respectively, (Table 4.3).



Source: Field Survey, 2007

Table 4.6: Distribution of Household Population Aged 10 yrs and Above According to Sex by Marital Status

Marital status	Male		Female		Total	
	No	percent	No	percent	No	percent
Unmarried	86	26.9	47	12.6	133	19.2
Currently married	230	71.9	316	84.5	546	78.8
Widow	4	1.2	10	2.4	14	2.0
Total source	**320**	**100**	**373**	**100**	**693**	**100**

Source: Field Survey, 2007

4.3 Socio-economic Characteristics of Respondent and Their Husband

4.3.1 Educational Status of Respondents and Their Husband

Education is the main vertebrate of the development of the nation or community as well as family. Education changes the behavior of women in every aspect of life. So public health is directly related with the educational status of mother and her husband.

Table 4.7 Distribution of Respondents and their Husband by Educational Attainment

Description	Husband		Respondent	
	Number	Percent	Number	Percent
No education	15	20.5	30	41.1
Primary	20	27.4	27	37.0
some secondary	10	13.7	13	17.8
SLC and above	28	38.4	3	4.1
Total	**73**	**100.0**	**73**	**100.0**

Source: Field Survey, 2007

Table 4.7 shows that more than two in every five women (41.1 percent) are illiterate in the study area. Out of 73 respondents highest percent of women have educational of primary level (37.0 percent) and women with education of SLC and above is only 4.1 percent and 17.8 percent of women have some secondary level education. Table 4.7 also shows that the slightly more than one third of the husband (38.4 percent) has achieved SLC and above education in the study area. Similarly, about 14 percent of the husband have achieved some secondary level and a little more than one fourth are under primary level and about 21 percent of husband are illiterate, which shows that the illiteracy rate among women is twice than that of male.

4.3.2. Respondent of Child Below 5 Years

Table 4.8 shows that total 166 household among them the 44 percent household have the child below the 5 years and 56 percent of respondent have the child above 5 years.

Table 4.8 Distribution of Respondents Having Child Below 5 Years

Description	Number	Percentage
Yes	73	44.0
No	93	56.0
Total	**166**	**100.0**

Source: Field Survey, 2007

4.3.3 Occupational Status of Respondent and Their Husband

Occupation has become essential in the modern economic life, without occupation people can't meet the increasing demand for the family and society. Occupation is most important factor to determine mother health condition both occupation of respondents as well as their husband has related on knowledge and practices of maternal health. Hence, the information on occupation is collected from respondent and their husband.

According to Table no. 4.9 out of the total 73 respondent more than half (59.0 %) are engaged in agricultural sector but in case of their husband every 1 in 4 husband has been found in agricultural sectors. Out of the total respondent 19.1 percent are involved in daily wages and only 4.1 percent respondent are involved in service where as, husbands percentage are more than 2 times higher than her wife in service sector.

Table 4.9 Distribution of Respondents According to Occupational Status of Respondent & Their Husband

	Wife		**Husband**	
Occupation	**Number**	**percent**	**Number**	**percent**
Household work	14	19.1	-	-
Agriculture	43	59.0	25	34.2
Mental job	3	4.1	8	11.0
Student	-	-	5	6.8
Trade/business	-	-	7	9.6
Lahure	-	-	3	4.1
Daily wages	13	17.8	25	34.3
Total	**73**	**100.0**	**73**	**100.0**

Source: Field Survey, 2007

4.4 Demographic Characteristics of Respondents and Their Husband

4.4.1. Age Structure of Respondents and Their Husband

It is important to know the age composition of respondents to analyze the maternal health care practices. According to Table 4.10 the highest percent of respondents are in the age group of 20-24 (32.9 percent) followed by 15-19 (27.4 percent), 25-29 (23.3 percent), 30-34 (13.7 percent) and 35-39 (2.7 percent).

The highest percent age of respondent have reported their husband in the age group of 25-29 (34.3 percent) followed by age group 20-24(27.4 percent), 30-34, (13.7 percent), 15-19 (11.0 percent) in 35-39 (8.2 percent) 40-44 (2.8 percent) and 45-49 and 50-54 each have one percent.

Table 4.10 Distribution of Respondents and Their Husband by Five Years Age Group

	Wife		**Husband**	
Age group	**Number**	**Percent**	**Number**	**Percent**
15-19	20	27.4	8	11.0
20-24	24	32.9	20	27.4
25-29	17	23.3	25	34.3
30-34	10	13.7	10	13.1
35-39	2	2.7	6	8.2
40-44	-	-	2	2.7
45-49	-	-	1	1.4
50-54	-	-	1	1.4
55-59	-	-	-	-
60	-	-	-	-
Total	**71**	**100.0**	**73**	**100.0**

Source: Field Survey, 2007

4.4.2. Age at Marriage of Respondents

Marriage is one of the major social factor affecting fertility performance as well as of maternal and child health care services. Nepalese society practice early marriage. Early marriage has become one of the threatening factors for maternal health. There are many disadvantages of early marriage. The risk of maternal health increased by getting early marriage.

Table 4.11 Distribution of Respondent by Age at Marriage

Age group	**No of Respondent**	**Percent**
10-14	7	9.6
15-19	52	71.2
20-24	12	16.4
25+	2	2.7
Total	**73**	**100.0**
Mean age at marriage	**18.1**	

Source: Field Survey, 2007

According to the above Table 4.11 out of total respondents highest 71.2 percent respondents got married in age between 15-19 age group followed by 16.4 percent at age 20-24 9.6 percent, and only 2.7 percent respondents got married in the age group 25 above. This result shows that large majority of women get married in their adolescence. The mean age at marriage of the respondents were 18.11 which is lower than national figure 19.5 based on 2001 census.

4.4.3 Age at First Child Birth

As marriage is universal in Nepal first birth within one year of marriage is also universal. In many societies being parent is considered as an entire goal. They priorities for birth after the marriage, therefore if the age at marriage is earlier the child bearing practices also start at earlier age. From the reproductive point of view the age group 25-35 years is considered as the appropriate age for child bearing. Child bearing practices out of this age range are considered to be dangerous.

The Table 4.12 clearly shows that highest percent (27.4 %) respondent had given their first birth in the age of 18 followed by 20.5 percent in the age of 17, 11 percent in the age of 16, 9.6 percent in the age of 15, 8.7 percent in the age of 20. Similarly, the Table 4.12 shows that more than four fifths of the respondents percent (80.2 percent) reported that they had their first birth in the age of 15-19 yrs followed by 19.2 in age group 20-25 years.

Table 4.12 Distribution of Respondent by Age at First Birth

Age of mother	Number	Percent
15	7	9.6
16	8	11.0
17	15	20.5
18	20	27.4
19	9	12.3
20	6	8.2
21	2	2.7
22	2	2.7
23	1	1.4
24	1	1.4
25	2	2.7
Total	**73**	**100.0**

Source: Field Survey, 2007

Chapter-5

Maternal Health Care Practices and Condition

This chapter presents the Survey findings related to maternal health care practices in the study area. The maternal health care includes antenatal care, delivery and postnatal care. The health status of mother depends on different factors such as age at marriage, age of mother, antenatal care, delivery care, along with those factors poverty, ignorance, lack of education, lack of power to decision making their own health also contribute a lot in determining the MMR and morbidity. Nowadays maternity related illness is regarded as the most serious health problem at though the problems of malnutrition and anemia also take their role and women's health.

5.1. Antenatal Care Practices

The maternal health care service that mothers receive during her pregnancy at the time of delivery is important for the well being of mother and her child. Antenatal care can be assessed according to the type of service provider, number of ANC visit and the timing of first visit. (NDHS, 2006. The age, education and place of residence of mothers differ in using ANC. Young maternal age, low birth order, higher education, urban residence and residence in Terai are all associated with better ANC and TT coverage. In Nepal the family plays a critical role in promoting healthy pregnancies reducing the change of high risk of pregnancies, by seeking routine maternity care and recognizing and taking immediate action for obstetritic emergencies, providing adequate nutrious food and help her seek assistance from trained health worker during pregnancy and labor.

5.1.1. Health Checkup During Pregnancy

Figure 5.1 shows that the information on the utilization of antenatal services. In the study area only 41.1 percent of women have received the services through different health worker and the percent women didn't receive any services during their last pregnancy is found 58.9 percent which two times higher (26.2 %) than national figure in 2006.

Figure 5.1. Distribution of Respondents According to Health Check up During Pregnancy

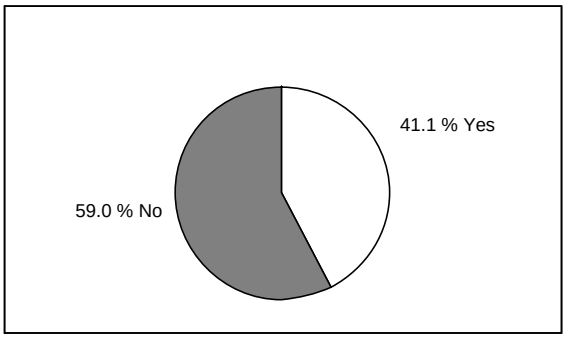


Table 5.1. Distribution of Respondents According to Health Check up During Pregnancy

Description	Number	percent
Yes	30	41.1
No	43	58.9
Total	**73**	**100.0**

Source:- Field Survey, 2007

5.1.2. Health Checkup During Pregnancy by Caste-Ethnicity

From the table 5.2 it is found that 66.3 percent Brahmin women and 52.2 percent Chhetri women have had health checkup during pregnancy. Similarly, 50 percent of Newar, 41 percent of Kami, 33.3 percent of Damai and only 28 percent of Tamang women who sought to health checkup during pregnancy. Among the caste wise distribution, highest percent of Brahmin respondent has ANC and the least percentage of ANC is found in Tamang respondents than other caste.

Table 5.2 Distribution of Respondents According to Health Checkup During Pregnancy by Caste and Ethnicity

Caste	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percentage
Chhetri	12	52.2	11	47.8	23	31.5
Tamang	8	28.6	20	71.4	28	38.4
Kami	5	41.7	7	58.3	12	16.4
Newar	2	50.0	2	50.0	4	5.5
Brahmin	2	66.3	1	33.3	3	4.1
Damai	1	33.3	2	66.6	3	4.1
Total	**30**	**41.1**	**43**	**58.9**	**73**	**100.0**

Source: Field Survey, 2007

5.1.3. Health Checkup During Pregnancy by Respondents Age

Age is one of the important factor to the ANC this above Table shows younger women are more likely to use antenatal services than the older women. The older women who have given birth previous have lower percentage of ANC visit.

Table 5.3 gives the information on antenatal services according to women's age. Among the total respondents only little bit more than two fifth of the mother have health checkup during pregnancy, from any health facilities. The highest 80, percent of mothers received the health checkup during the pregnancy in the age group 15-19. It is followed by 60 percent received health checked of age group 20-24 and 33 percent have health checkup during pregnancy of both 25-29 and 30-34 years age group, and the lowest 20 percent of mother received any health checkup during pregnancy of the age group 35-39.

Table 5.3 Distribution of Respondents According to Health Checkup During Pregnancy by Respondent's Age

	Yes		No		Total	
Age	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
15-19	4	80.0	1	20.0	5	6.8
20-24	12	60.0	8	40.0	20	27.4
25-29	8	33.3	16	66.6	24	32.9
30-34	4	33.3	8	66.6	12	16.4
35-39	2	20.0	8	80.0	10	13.7
40+	-	-	2	100.0	2	2.7
Total	**30**	**41.1**	**43**	**58.9**	**73**	**100.0**

Source: Field Survey, 2007

5.1.4. Antenatal Care Provider and Educational Status

The basic hypothesis is that the literate respondents have received better antenatal checkup than the illiterate respondents. In the study area, the respondents receiving antenatal checkup the respondent having no education has found ANC only 30 percent (10 % from nurse and 20 % from AHW). Similarly 29.6 percent ANC checkup among them 18.5 percent form nurse and 11.1 percent from AHW. The respondent having some secondary education found ANC checkup 77 percent among them 7.7 percent

form doctor 53.8 percent form nurse and 15.3 percent from AHW. Respondent having SLC and above education have cent percent ANC checkup from doctor or nurse i.e. 33.3 percent from doctor, 66.7 percent from nurse (Table 5.4).

The utilization of antenatal care service is positively associated with mother's level of education. 99 percent of women with no education and primary education have found no ANC from doctor but some secondary found 7.7 percent and SLC above found 33.3 percent. The above this data shows the use of ANC increasing with the level of education.

Table 5.4 Distribution of Respondent Health Checkup During Pregnancy by Respondent Education

Description	Doctor		Nurse		AHW		None		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No education	-	-	3	10	6	20.0	21	70.0	30	41.1
Primary	-	-	5	18.5	3	11.1	19	70.3	27	37.0
Some secondary	1	7.7	7	53.8	2	15.3	3	23.1	13	17.8
SLC and above	1	33.3	2	66.7	-	-	-	-	3	4.1
Total	**2**	**6.6**	**17**	**56.6**	**11**	**36.6**	**43**	**58.9**	**73**	**100.0**

Source: - Field Survey, 2007

5.1.5. Birth Order and Antenatal Checkup

Younger women are more likely to use antenatal services than older women younger women and low parity women are more likely to receive information about pregnancy complication and antenatal care services than older and high parity women. Also older women who have gives birth previously may feel less need for ANC services.

The Table 5.5 shows that the 50 percent respondent with having one child have checkup their health during pregnancy similarly,33.3 percent women having 2 or 3 children, 13.3 percent respondents having four or five children have ANC check followed by 6 or more than 6 child with have only 3 percent ANC checkup.

Table 5.5 Distribution of Respondent According to Birth Order and Antenatal Checkup

Birth order	Number	Percent
1	15	50
2-3	10	33.3
4-5	4	13.3
6+	1	3.3
Total	***30***	***100***

Source: Field Survey, 2007

5.1.6. Frequency of Visit and Time of First Visit

Antenatal care can be more effective in avoiding adverse pregnancy out comes when it is sought early in the pregnancy and continuous through to delivery. The National Safe Motherhood Program Guidelines of Nepal, recommend at least four visits during pregnancy and also the additional visit should be made if any problem or danger signs arise.

Table no. 5.6 clearly shows that 40.0 percent have received prenatal visits in the second month followed by 33.3 percent in the first month, 16.6 percent in the third month. It also shows that 43.3 percent respondents first visit was in third month followed by 23.3 percent in fourth month and 16.6 percent in second month.10 percent in fifth month of conception and 6.7 percent in sixth month of conception.

Table 5.6: Distribution of Respondent According to Prenatal Visits, Frequency and First Visit

	Prenatal visit		First visit	
Month/order	**Number**	**Percent**	**Number**	**Percent**
1	10	33.3	-	-
2	12	40	5	16.6
3	5	16.6	13	43.3
4	3	10	7	23.3
5	-	-	3	10
6	-	-	2	6.7
Total	**30**	**100**	**30**	**100**

Source: Field Survey, 2007

5.2. Care component

Pregnancy complications are an important cause of maternal mortality and morbidity. Thus, providing adequate and proper information to expectant mothers about the danger signs associated with pregnancy and the appropriate action to be taken is an essential component of antenatal care.

In the study area, from Table 5.7. It has been found that out of total respondents who had health checkup during pregnancy from only health facilities. 27.4 percent women took iron Tablets sometime during their pregnancies and 72.6 percent took any iron Tablets.. The low iron Tablet intake results in lack of iron in the body and makes the women anemic as a result the pregnant women may develop more complications.

Table 5.7 Distribution of Respondent by Receiving Iron Folic Acid and TT Injection During Pregnancy

	Receive of iron Tablet		Receive TT injection	
	Number	**Percent**	**Number**	**Percent**
Yes	20	27.4	25	34.2
No	53	72.6	48	65.8
Total	**73**	**100.0**	**73**	**100.0**

Source: Field Survey, 2007

Tetanus toxid injection an important component of antenatal care is given during pregnancy primarily for the prevention of neonatal tetanus. A pregnant women should receive three dose of TT to protect herself and the unborn child fully during pregnancy.

The Table 5.7 also gives the information about the tetanus. In the study area, among out of the total respondent 34.2 percent have received TT injection and 65.8 percent did not received.

5.2.1 Component of Antenatal Care

Pregnancy is a matter of joy in the family so, the families responsibility should be increased towards the pregnant women to appropriate care. This care must be viewed as that antenatal care women have to received care as measure weight, height, blood pressure, urine sample blood sample etc.

Table 5.8.Shows that the component of antenatal care among women who received antenatal care. The highest percent (76 %) of respondent have measured blood pressure followed by 24.7 percent weight measured, 4.1 percent the height measured, urine tests and blood test, height were measured for each.

Table 5.8 Distribution of Respondent By Receiving Component of Antenatal Care

Descri-ption	Weight measured		Height measured		Blood Pressure measured		urine sample taken		Blood sample		Total	
	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.
Yes	18	24.7	3	4.1	56	76.7	3	4.1	3	4.1	20	66.6
No	55	75.3	70	95.8	17	23.2	70	95.8	70	95.8	10	33.3
Total	**73**	**100.0**	**73**	**100.0**	**73**	**100.0**	**73**	**100.0**	**73**	**100.0**	**30**	**100.0**

Source: Field Survey, 2007

5.2.2. Food Intake During Pregnancy

During pregnancy additional food is necessary for the growth and development of the fetus. In general more than usual food should be taken during pregnancy to fulfill required protein vitamin and minerals. Mothers in good nutritional status are better equipped for the strain of labor and lactation. Poor nutrition during, pregnancy period results in a baby with a low birth weight (< 2.5kg) and leads to pregnancy complication, like abortion, intrauterine death, and premature delivery. A pregnant woman must gain about 11kg of weight during pregnancy. Thus, it is necessary to have additional food by the women during this period.

Above Table 5.9 shows that out of the total respondent about 62 percent found to have more than usual food during pregnancy and about 34 percent respondent found to have same as usual food in pregnancy and about 4 percent respondent found to have less than usual food during pregnancy.

Table 5.9 Distribution of Respondent by Food Intake During Pregnancy

Description	Number	Percent
More than usual	45	61.6
Same as usual	25	34.2
Less than usual	3	4.1
Don't know	0	0.0
Total	**73**	**100.0**

Source: Field Survey, 2007

5.2.3. TT Vaccine and Educational Status

Among total respondent who received antenatal care 34.2 percent received TT injection while 65.8 percent did not received any TT injection. Education of mother is strongly associated with tetanus toxid coverage. Use of TT vaccine has increased with the level of education. Table 5.10 shows that 10 percent of the respondent with no education use one dose of TT vaccine and 6.6 percent use more than two dose of vaccination 18.5 percent of the respondent with primary education has use one dose of TT vaccination, 46.2 percent of respondent with some secondary use one does and 23.1 percent respondent use more than two does of TT vaccine. Similarly, 66.6 percent of the respondent with SLC and above use one does and 33.3 of total respondent use more than 2 dose of TT vaccine. The none use of TT vaccine has been decreased with the level of the education 83.3 percent of the total respondent with no education did not use it during pregnancy 74.7 percent of the respondent with primary education 30.7 percent of the some secondary education and. All the respondent with SLC and above use the TT injections.

Table 5.10 Distribution of the Respondents According to Literacy and Receive of TT Injection

No of TT	No education		Primary		Secondary		SLC and above		Total	
	No	**Percent**	**No**	**Percent**	**No**	**Percent**	**No**	**Percent**	**No**	**Percent**
1	3	10	5	18.5	6	46.2	2	66.6	9	12.3
2+	2	6.6	2	7.4	3	23.1	1	33.3	16	22.0
none	25	83.3	20	74.1	4	30.7	0	0	48	65.8
Total	**30**	**41.1**	**27**	**37.0**	**13**	**17.8**	**3**	**4.1**	**73**	**100.0**

Source: Field Survey, 2007

5.2.4. Iron Tablets and Educational Status

Educated women are expected to take more iron Tablets than uneducated women, out of total respondent who received antenatal care, 20 percent respondent have received iron Tablets are highly influenced by level of education of respondent. Educated women are expected to take high and better iron Tablet than uneducated women. Iron Tablet receiving percentage of respondent is increasing with level of education, 10 percent of respondent with no education had received iron Tablets followed 22.2

percent of some primary 61.5 percent of respondent with some secondary education and cent percent of respondent with SLC and above received iron Tablet.

Table 5.11 Distribution of the Respondent According to Literacy Status and Receiving of Iron Tablets

Descr-iption	No Education		Primary		Some secondary		SLC & above		Total	
	No.	**Percent**	**No.**	**Percent**	**No.**	**Percent**	**No.**	**Percent**	**No.**	**Percent**
Yes	3	10	6	22.2	8	61.5	3	100.0	20	27.4
No	27	90	21	77.7	5	38.4	-	-	53	72.6
Total	**30**	**41.1**	**27**	**37.0**	**13**	**17.1**	**3**	**4.1**	**73**	**100.0**

Source: Field Survey, 2007

5.2.5. Counseling During ANC Visit

Counseling is important for pregnant women during ANC visit. The health professional counseling is necessary for them. It gives the information, knowledge about hazardous risk condition of pregnancy and it also increase health consciousness of them and raise the health awareness during pregnancy.

The Table 5.12 shows that among the total respondent who visit ANC, 53 percent respondents have reported they received counseling about pregnancy complications and skilled birth attendance and 47 percent of respondent reported that they did not receive counseling during the pregnancy.

Table 5.12 Distribution of Women Receiving Counseling During ANC Visit

Description	Number	Percent
Yes	16	53.3
No	14	46.7
Total	**30**	**100.0**

Source: Field Survey, 2007

5.2.6. Preparation Before Delivery

Preparation is also the most important aspect during delivery. Pregnant women have to be well prepare in mentally, physically and economically. The pregnant women have to prepare the things which leads her delivery safely and comfortable.

Table 5.13 Distribution of Respondent According Preparation Before Delivery

Description	Number	Percent
Saved money	59	80.8
Found blood donor	-	-
Arranged for transportation	-	-
Contacted health worker	3	4.1
Nothings	11	15.1
Total	**73**	**100.0**

Source: Field Survey, 2007

The Table 5.13. shows that out of the total respondent about 81 percent respondent have saved money, about 4 percent respondent had arranged for transportation and about 15.1 percent of respondent have not prepared anythings for their delivery.

5.2.7. Vision Problem During Pregnancy

The maternal night blindness condition caused by vitamin A deficiency and at night time work activities in rural areas of Nepal of pregnant women. Most of them were found from lower caste, illiterate, live in poorer quality homes, and own no land, low level of Hemoglobin and low level of vitamin. Night blindness is characterized by impaired vision at dusk and night among women who have normal vision during day time.

Table 5.14 Distribution of Women Suffering from Vision Problem During Pregnancy

Description	Vision Problem during day light		Vision problem during night	
	No.	Percent.	No.	Percent.
Yes	7	9.6	10	14.0
No	66	90.4	63	86.0
Total	**73**	**100.0**	**73**	**100.0**

Source: - Field Survey, 2007

The Table 5.14 shows that about 10 percent of the total respondent had reported they had vision problem during day light and 14 percent of them had vision problem in night during pregnancy.

Chapter 6

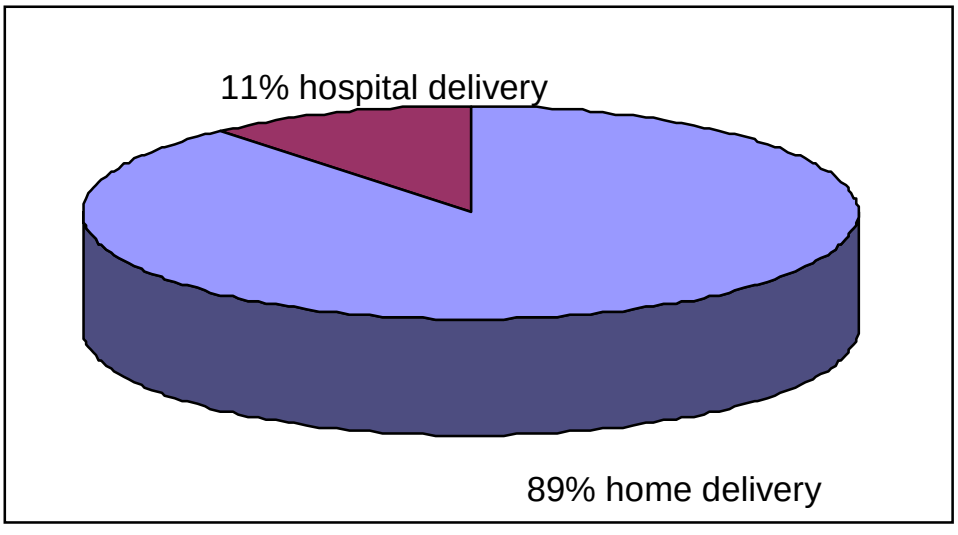
Delivery Care Practices.

Many women die during delivery period. There are several reasons and conditions that take lives of mother. Unsafe delivery practices, unhygienic place of delivery, use of unsafe delivery kit, incompetent delivery assistant and prolonged labor and other physical disorder are some major reason of maternal mortality and morbidity, the objective of providing safe delivery services is to protect. The life and health of the mother and her-child by ensuring the delivery of a baby safely.

Proper medical attention under hygienic conditions during delivery can reduce the risk of complication and infections. That may cause death or serious illness either to the mother or the baby or both. (NDHS, 2001) most or the women loss their life during delivery period so, it is essential protect the mothers life from unsafe delivery.

6.1. Place of delivery

Fig.6.1 Distribution of Respondent According to Place of Delivery



According to fig. 6.1shows 89 percent of the birth was taken place in the home and only 11 percent of the baby were given birth in the health sector. Because their may

arise complication during labor which forced her to bring in the hospital or health consciousness or for safe delivery they were brought in hospital.

6.2 Place of Delivery and Educational Status.

Traditionally, most of the Nepalese children are delivered in their own home. At the national level only 17.7 percent of births are delivered in the health facilities. (NDHS, 2006). In the study area, out of total 89 percent respondent delivered in the home and only 11 percent respondent delivered their baby in the hospital this percent is as same as the national level in 2001 NDHS Survey.

It has been observed from Table 6.1 that literate women have better utilized health facility than illiterate women at the time of child delivery. About 97 percent of women with no education delivered their baby in the home where as, only 33 percent women with SLC and above delivery, their baby in the home. About 93 percent with primary education and 75 percent of women with secondary education have given birth their birth in the home. Similarly, only 3 percent respondent with no education gave birth in the hospital, 67 percent of respondent with SLC and above delivered their baby in the hospital. And 7 percent respondents of primary education and some secondary 23 percent delivered with hospital. The Table 6.1 shows that respondent of hospital delivery percent is increasing with level of education.

Table 6.1 Distribution of Respondents Education and Place of Delivery

Description	Home		Hospital		Total	
	Number	Percent	Number	Percent	Number	Percent
No education	29	96.7	1	3	30	41.1
Primary	25	92.5	2	7	27	37.0
Secondary	10	77.0	3	23.0	13	17.8
SLC & above	1	33.3	2	67	3	4.1
Total	**65**	**89**	**8**	**11**	**73**	**100.0**

Source: Field Survey, 2007

6.3 Assistance During Delivery

Traditionally, Nepalese children are delivered at home either without assistance or with the assistance of TBA, or relatives and friends. For both mothers and her child, it is important to have a healthy and safe delivery and the mothers must receive assistance from medical personnel during the delivery. From the table 6.2, 67 percent delivery was assisted by relatives and friends followed by 17.8 percent were assisted by Nurse and health assistance, 8.2 percent were assisted by traditional birth attendance and 6.9 percent were not assisted by anyone.

Table 6.2 Distribution of Respondents According to Assistance During Delivery

Assistance	Number	Percent
Relatives and friends	49	67.0
Nurse and health Assistance	13	17.8
TBA	6	8.2
None	5	6.9
Total	**73**	**100.0**

Source: Field Survey, 2007

6.4 Use of Safe Delivery Kits

The safe delivery kit was developed in the early 1990's by maternal child health product with funding from USA ID. The kit contains a new razor blade, clean threads hand soap, a plastic disc and pictorial instruments (NDHS, 2001:151). The percent of respondents using the safe delivery kit in the study area was only 30.1 percent. A large majority of respondent about (70 %) did not use safe delivery kit in last delivery.

Table 6.3 Distribution of Respondent Using Safe Delivery Kits

Description	Number	Percent
Yes	22	30.1
No	51	69.9
Total	**73**	**100.0**

Source: Field Survey, 2007

6.5 Use to Cut the Umbilical Cord

The most of the Nepalese children are delivered in home especially in the rural part of Nepal. They hardly use safe delivery kits. They used to cut the umbilical cord what they found in near like hansiya, used blade, knife etc. Table 6.4 shows that 38.5 percent of the respondents had used blade to cut the umbilical cord followed by Hansiya 27.7 percent and new blade 23 percent, 11 percent used the knife. The hansiya and used blade which is not appropriate tool for cutting umbilical cord because it may cause tetanus.

Table 6.4 Distribution of Respondents by Using Tools to Cut the Umbilical Cord

Description	Number	Percent
New blade	15	23.0
Used blade	25	38.5
Hansiya	18	27.7
Knife	7	10.8
Total	**65**	**100.0**

Source: Field Survey, 2007

Chapter-7

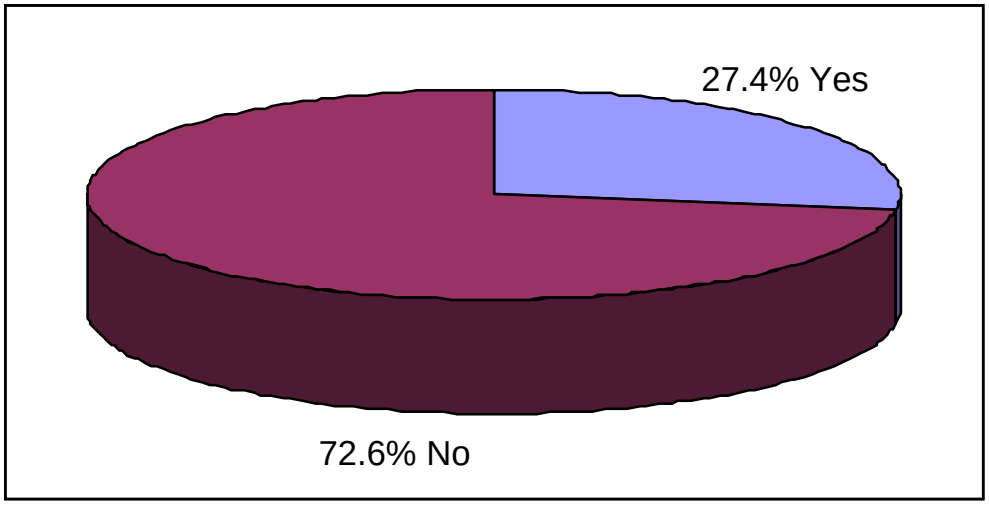
Postnatal Care

Postnatal means care of mother and new born baby till six weeks after delivery. The national safe motherhood programme recommends that mother should have a postnatal checkup within two days of delivery. Postnatal care is very rare in Nepal as well as in the study area.

For the health of mother and child, women have to checkup their health within two days of delivery and at least two times checks within 42 days of delivery. This check-up differ by various factors as casts and ethnicity and education also.

The figure 7.1 shows that only 27.4 percent of the total respondent checked up their health within 2 days of delivery and the highest percent 72.6 percent of them did not health check up after delivery even they had problem.

Fig 7.1 Distribution of Respondent According to Health Check After delivery.



7.1 Problem after delivery.

The women after delivery may feel various uneasy. Illness like that fever, bleeding, infection of vagina and others complication leads the women health in the risk condition. The Table 7.1 shows that 34 percent of the total respondent who had problem after delivery and 65 percent of the total respondent do not have any problem after delivery.

Table 7.1 Distribution of respondents by problem after delivery.

Description	Number	Percent
Yes	25	34.2
No	48	65.8
Total	**73**	**100.0**

Source: Field Survey, 2007

7.2 Postnatal Visit and Cast Ethnicity

The Table 7.2. shows that among the total of respondent 27.4 percent have postnatal check up within 2 days of delivery . The highest percent of chhetri 43.5 percent checked up their health within two days of delivery followed by 33.3 percent of brahmin check on their health, 25 percent Newar, 21 percent Tamang and the least percentage of Kami which is 16.6 percent.

Table 7.2 Distribution of Respondent According to Caste and Postnatal Visit.

Description	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Chhetri	10	43.5	13	56.5	23	31.5
Tamang	6	21.0	22	78.6	28	38.4
Kami	2	16.6	10	83.3	12	16.5
Newar	1	25.0	3	75.0	4	5.5
Brahmin	1	33.3	3	100.0	3	4.1
Total	**20**	**27.4**	**53**	**72.6**	**73**	**100.0**

Source: Field Survey, 2007

7.3 Postnatal Check Up and Education

As mentioned earlier, education affects all the aspect of human life. Educated respondents have better knowledge about health care activities. So education affect the postnatal check up. Postnatal visit is not popular as antenatal visit. It is a national and international trend. But in international trend the gap is less pronounced whereas the gap is absolutely higher in national figure. Table 7.3 shows that better education have more post natal check up respondent with no education have least post natal check up.

Cent percent respondents with education of SLC and above have checked on their health after delivery followed by some secondary 76 percent and primary 14.8 percent. One-tenth of the respondents with no education have checked on their health after delivery.

Table 7.3 Distribution of Respondent by Postnatal Checkup and Education

Description	**Yes**		**No**		**Total**	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
No education	3	10.0	27	90.0	30	41.1
Primary	4	14.8	23	85.2	27	37.0
Some secondary	10	76.0	3	24.0	13	17.8
SLC & above	3	100.0	-	-	3	4.1
Total	**20**	**27.4**	**53**	**72.6**	**73**	**100.0**

Source: Field Survey, 2007

Chapter 8

Summary, Conclusions and Recommendations

This study is about maternal health care situation in Nepal *"A case study of Samundra Devi VDC ward no.4 and 5 of Nuwakot district.* The main elements included in the study are antenatal care, place of delivery, postnatal care practices. The main summary, conclusion and recommendation of the study are presented in this chapter.

8.1. Summary of Major Findings

8.1.1. Socio-Economic and Demographic Condition

- The population less than 14 yrs and 60 yrs and above 45.4 percent and 7.0 percent respectively.
- The sex ratio of the study population is 88.2.
- In the study area, literacy status of respondent with no education percent have found 41 percent, primary, secondary and SLC and above percent, respectively 37.0, 17.8 and 4.3 percent.
- About 79 percent population of the study area are currently married, 19 percent are unmarried and only 2.0 percent are widow.
- Most of the respondent use well/kuwa for their sources of drinking water.
- About 96 percent respondent are hinduism, 3.0 percent are Buddhism and only 1.2 percent Christian and 42.2 percent respondents are chhetri, 35.0 percent are Tamang, 12.0 percent are Kami, 5.4 percent Newar, 3.0 percent are Damai and only 2.4 percent are Brahmin.
- Among the total respondent 60.2 percent household have toilet facilities 90.3 have radio and 4.8 percent have telephone facilities.
- Among total respondent 44.0 percent have child below 5 years.
- About 59 percent respondent involved in agricultural sector 19.1 percent in household work, daily wages 17.8 percent and only 4.1 percent are involved in service sector.
- 71.2 percent respondent got married in age 15-19 and only 2.7 percent got married in 25 yrs and above.

- The highest percent (97.4 percent) respondent gave first birth in the age of 18 and least percentage (1.4 percent) gave first birth in the age of 23 and 24 yrs.
- The mean age at marriage of respondent is 18.1 years.

8.1.2. Antenatal Care Practices

- Forty one percent respondent have received antenatal check up and about 59 percent have not received this services.
- The highest percent of Brahmin, 66.3 percent have received pregnancy test and of the total cast Tamang respondent have received least only 28.6 percent.
- The eighty percent of mothers received the health check up during pregnancy in the age group 15-19 and only 20 percent of the respondent in the age group 35-39 check on their health during pregnancy.
- Respondent with no education received ANC only 10 percent from Nurse 20 percent from AHW and 70 percent of respondent with no education have no pregnancy test.
- 33 percent of respondent with SLC and above have ANC from doctor and 66.7 percent from nurse.
- The respondent having one child have found 50 percent of them check up their health during pregnancy and respondent with more than 6 child have only 3 percent of them check on health during pregnancy.
- 40 percent of the respondent visited with health professional after second months conception.
- 27.4 percent of respondent have taken iron folic acid Tablets during last pregnancy.
- Thirty four percent respondent received TT vaccination.
- 24.7 percent were weight measured 76.7 percent were blood pressure measured and 4 percent each of them were blood sample and urine sample and height measured. About 61 percent of the respondent took more than usual food during pregnancy.

- The highest percent (66.6 percent) respondent SLC and above found one dose and 33.3 percent found more than two dose of TT vaccination.
- Respondent with no education took iron Tablet least percent of only 10 percent and SLC and above found cent percent (100.0 percent) took iron Tablet during pregnancy.
- 53 percent of respondent counseling during antenatal visit.
- 80 percent of respondent prepared for their delivery by saving money and 15 percent found no preparation for their delivery.
- 9.6 percent of women during pregnancy have vision problem at the day light.

8.1.3. Delivery Care Practices

- 89 percent respondent delivered their baby in their home and only 11 percent delivered in the health facility.
- Only 3 percent respondent with no education have delivered their baby in the health facilities and respondent with SLC and above have highest 67 percent delivered baby in the health facilities.
- The study show 96.7 percent of respondent with no education and only 33.3 percent of the SLC and above have delivery in the home.
- 67 percent of deliveries were assisted by relatives and friends and about 18 percent by nurse and health assistance and 8 percent were TBA 7 percent of them were not assisted by anyone.
- 38.5 percent of the respondent use (second hand blade or used blade) 28 percent use the hansiya for cut the umbilical cords.

8.1.4. Postnatal Care Practices

- 34 percent of the respondent had problem after delivery.
- 27 percent of the respondent had checked on their health after delivery.
- The highest percentage of chhetri 43.5 had checked on their health after delivery.
- Only 10 percent of respondent with no education and cent percent of the respondent of SLC and above had postnatal checkup.

8.2. Conclusions

In this VDC 166 household had taken among them 73 household had at least one child below 5 yrs, majority of respondents are found in the age group 15-19 age group. Early age at marriage is found in this study area. Most of respondent got married in the teen age and highest percent of them gave first birth in the age of 18 yrs. Most of the respondent are engaged in agriculture sector and most of the respondent are illiterate.

Maternal health status is quite poor in this study population only 41 percent respondent had received antenatal checkup during the last pregnancy. From this Survey, it is observed that among the castwise distribution Brahmin women are more likely to antenatal check up and least percentage of Tamang than other caste women and also younger age women are more likely to antenatal care services than older women. Education is positively associate with maternal health, highest the education highest antenatal care, highest proportion of delivery in health facility and highest postnatal check up. Also shows that low coverage of iron tablet and TT injection received during pregnancy.

Because of various difficulties in assessing the health care services, most of the children are delivered at home with assistance of relatives. The study found that 89 percent pregnancies are delivered at their own home. With increasing the level of education, increasing the percentage of women deliver their baby in the health facilities. Only least percent of respondent checked their health within 2 days of delivery. The highest percentage Chhetri respondent had check up their health after delivery and highest educational level highest the postnatal checkup because educated women have better knowledge, aware to their health care activities.

Overall, the study shows that the women socio-economic status seems poor and maternal health is not satisfactory condition.

8.3 Recommendation for the Policy Implementation

- Maternal health improving programme should be launched to increase the awareness of women.

- Most of the respondents are engaged in agriculture work and household work. So, respondents do not afford to receive payable maternal health services. So, free and easily available services should be provided to improve the maternal health care practices.
- Health Post should provide regular maternal health services like antenatal, delivery and postnatal care. Health post should equipped with basic instruments and medicine.
- TBAS, MCHWS and CHWS should be involved to distribute the iron Tablet and other necessary counseling for the pregnant women.
- Mass education programme on radio regarding maternal health should be provided through different INGOs and NGOs like MOH/FHD etc.

Future Research Issues

This study covers 2 wards 4 and 5 of Samundra Devi VDC. The study covers socio-economic and demographic variables to find out the conditions of maternal health care practices among reproductive age women.

This study can be good basic for further study of that community. The issues of further studies are as follows

- This study examined only a few selected socio-economic and demographic variables this further studies might includes other variables to access knowledge and practices of maternal health care services.
- This study has been carried out by using descriptive analysis. This type of study could done by using correlation, regression and other statistical tools.
- All VDC of Nuwakot district should be covered by studies in future.

Appendix I: Questionnaire

Tribhuvan University
Central Department of Population Studies (CDPS)
Kirtipur, Kathmandu
"Maternal Health Care Situation in Nepal"
(A Case Study of Samundra Devi VDC, Nuwakot)

Date: / /

District: Nuwakot
Strata No.:
Sample No.:
Village/Tole:
Ward No.:
VDC: Samundra Devi
Respondent's Name:
Types of household: Joint/Nuclear
Caste/Ethnicity:
Religion of the HH/H:

S.N.	Name of the family member	Relation to HH/H	Sex	Age	Illiterate/literate	Class pass	Marital status	Occupation	Subsidiary income if available
1									
2									
3									
4									
5									
6									
7									

Household design
Code:

Sex	Relation to HH	Literate/illiterate	Literate	Marital status	Occupation	Cast
01-Male 02-Female	01-HH head 02-Husband wife 03- son/ daughter 04- daughter/ son in law 05-grand child 06-parent 07- father/mother in law 08- brother/sister 09- nephew/niece 10-co-wife 11-other relatives 12-adopted step child 12-not related 13-not related 98-not known	01-Literate 02-illiterate 98-Not Known	00-No school 01-1 Class pass 02- 2 class pass 03 -3 class pass 04 -4 class pass 05-5 class pass 06-6 class pass 07-7 class pass 08-8 class pass 09-9 class pass 10-sent up pass 11- SLC pass 12- +2/ inter pass 13 Bachelor pass 14-master pass 15-non formal	00-Single 01-living together 02-separated 03- divorce 04-separated 08-not stated 09-not available	01- Agriculture 02-cottage industries 03- trade/business 04-service sector 05-daily wages (agriculture) 06-daily wages (not agriculture) 07-houshold work 08-physically disable 09-students 10-unemployed 11- dependent 12-Lahure 13 –not known	01-brahmin 02-Chhettri 03-Tamang 04-Newari 05-Damai 06-Kami

S.N.	Question	Coding	Description	Remarks
1	What is the main source of drinking water for your household?	01 02 03	Piped water Well Surface (spring river)	
		04	Other	
2.	How long does it take to get there, get water and come back? …….. Minute/hours			
3.	Does your household have toilet?	01 02	Yes No	
4.	If yes, do you usually use the toilet?	01 02	Yes No	
5.	What types of toilet does your family use?	01 02 03 04 05	Pit toilet Flush toilet Open toilet Bush/field Others	
6.	What type of house do you have?	01 02 03 04 05	Concrete Stone with concrete joint Stone with mud joint Bamboo cut Others	
7.	Does your household have the following facilities?	01 02 03 04	Radio Television Telephone Others	
8.	Is there any health center?	01 02	Yes No	Go to II part
9.	Distance from house to health center? a. ……K.M. b. ……Mtr			
10.	How much time is taken to center? a…… hr b……min			
11.	What type of transportation is available here?	01 02 03 01	On foot Animal back Vehicles Others	
12.	Do you have your own cultivated land?	01 02	Yes No	
13.	What is the quantity of land you have?		About …… ropani	
14.	Is the food produced from you land enough to family?	01 02	Yes No	
15.	If no, please tell the no. of months the food is scarce for …… months			

Appendix II
Personal Questionnaire:
Background information

SN	Question	Coding	Description	Remarks
1	How old are you at your last birthday?		Completed years ……	
2	What was your age when you got married?		Completed years ……...	
3.	Have you experienced about child bearing?	01 02	Yes No	 Go to next women
04.	How old were you when your first child birth?		Completed years ……..	
05.	How many children have you had? (including dead?		Number……	
06.	How old is your last baby?	01 02	Less than 5 years More than 5 years	 Go to next women
07.	What is your occupation?	01 02 03 04 05 06 07	Student Household work Agriculture Service Trade business Daily wages Unemployed	
08.	Have you ever attended school?	01 02	Yes No	 Go to Question no. 9
09.	What is the highest grade completed?		Grade ……	
10.	Why did you not attend the school?	01 02 03 04	Too far Not interested Poor economic background Parent doesn't allow	
11.	Did you take any informal class for reading and writing?	01 02	Yes No	

Part III: Antenatal Care Utilization

SN	Question	Coding	Description	Remarks
1.	When was your last pregnancy? Year…… Month…….		If more than 5 years →	Go to next women

2.	Did you see anyone for antenatal care for this pregnancy? If yes: whom did you see?	 01 02 03 04 05 06 07 08 09	Health professional Doctor Nurse Health assistant Health worker MCH worker HA/AHW VHW Traditional birth attendanc Others No one	
3.	Where did you receive antenatal care for this pregnancy?	01 02 03 04	Health Center Hospital Clinics Others	
4.	How many months pregnant were you when you first received antenatal care for this pregnancy?		Months…… Don't know……	
5.	How many times did you receive antenatal care during this pregnancy?		No. of times……. Don't know	
6.	As a part of antenatal care during pregnancy, were any of the following done at least once? Was your height measured? Were you weighed? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	Coding Yes No 1 2 1 2 1 2 1 2 1 2	Description Height Weight BP Urine Blood	
7.	During your antenatal care visit, were you advised to use a skilled birth attendance?	01 02	Yes No	
8.	During of your antenatal care visits, were you told about the signs of pregnancy complications?	01 02 03	Yes No Don't know →	 Go to Q.N. 10
9.	Were you told where to go if you had any of these complications?	01 02 03	Yes No Don't know	
10.	What kind of preparation did you make before hand for the delivery?	01 02 03 04 05	Saved money Arranged for the transport Found blood donor Contacted health worker Nothings	
11.	During this pregnancy were given an injection in the arm to prevent you and the baby from getting tetanus?	01 02 03	Yes No Don't know →	 Go to Q.N.13

12.	During this pregnancy, how many times did you get this tetanus injection? Times ……. Don't know			
13.	During this pregnancy, were you given or did you buy any iron folic acid tablets?	01 02 03	Yes No Don't know →	 Go to Q.N. 15
14.	During the whole pregnancy, for how many days did you take the tablets?		Days …… Don't know	
15.	During this pregnancy, did you take any drug for intestinal worms?	01 02 03	Yes No Don't know	
16.	During this pregnancy did you have difficulty with your vision during the day light?	01 02 03	Yes No Know	
17.	During this pregnancy did you suffer from night blindness (ratando)	01 02 03	Yes No Don't know	
18.	Have you taken calcium or vitamin during pregnancy?	01 02 03	Yes No Don't know	
19.	How much food had been taken during pregnancy?	01 02 03 04	More than usual As same as usual Less than usual Don't know	

Part: IV
Delivery care utilization

S. N.	Question	Coding	Description	Remarks
1.	Where did you give birth your baby?	01 02 03 04 05	Home → Health center Hospital Private clinic Others	Go to Q.N 4
2.	Who had assited with the birth of the baby?	01 02 03 04 05 06	Doctor Nurse/Health assistant TBA FCHV Relatives and friends/ others No one	
3.	Was delivered by Caesarean section?	01 02	Yes No	
4.	Why didn't you deliver in a health facility?	01 02 03 04	Cost too much Facility not open Too far/no transportation Don't trust poor quality services	
5.	Was a special safe delivery,	01	Yes	Go to Q.N. 6

	kit used during delivery?	02	No ⟶	
6.	When was born, what instrument was used to cut the umbilical cord?	01 02 03 04 05 06 07	New Blade Used blade Knife Hasiya Khukuri Scissors Others	
7	How many days/hours was the labour?		1. ……days 2. ……..hours	

Part IV: Postnatal Care

SN	Question	Coding	Description	Remarks
1.	After delivery, did you have problem?	01 02	Yes No	
2.	Do you visit health professional to solve the problem?	01 02	Yes No	 End the interview
3.	Who checked on your health at that time?	 01 02 03 04 05	Health professional Doctor Nurse/midwife Health assistance AHW MCH worker VHW	
4.	How long after delivery did the first check take place? (if less than one day record hours if less than one week record days)		Hours …….. Days ……. Weeks …….. Don't know……	
5.	Where did this first check take place?	01 02 03 04 05 06	Home Govt. hospital PHC center Health post Sub health post Private hospital/clinic	
6.	After delivery, how many times did you check on your health?		…….. Time	