

**Reproductive health status of married women among  
Nepali community in Lingmoo Village, South Sikkim**

**A Dissertation Submitted**

**To**

**Sikkim University**



**In Partial Fulfilment of the Requirement for the  
Degree of Master of Philosophy**

**By**

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### DECLARATION

I, Duka Devi Chhetri, hereby declare that the thesis entitled "REPRODUCTIVE HEALTH STATUS OF MARRIED WOMEN AMONG NEPALI COMMUNITY IN LINGMOO VILLAGE, SOUTH SIKKIM" is an original work carried out by me under the guidance of Dr. Maibam Samson Singh. The contents of this thesis did not form the basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute. This is submitted to the Sikkim University, for the award of the degree of Master of Philosophy in Anthropology.

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### **Reproductive health status of married women among Nepali community in Lingmoo Village, South Sikkim**

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# **CHAPTER I**

## **INTRODUCTION**

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes (Dicken et al. 2006). It involves all of the reproductive processes, functions and systems at all stages of human life (Pachauri 1998). Reproductive health is not now, and never has been, simply a matter of preventing disease. This is because a woman's ability to bear children is linked to the continuity of families, clans, and social groups; the control of property; the interaction between human communities and their environment; the relationship between men and women; and the expression of sexuality. It is therefore valuable currency in every society and the object of regulation by families, religious institutions and governmental authorities (Ravindran 1995). At the beginning of the 21st century, economic globalization, accelerating technological change, expanding industrialization and shifting political and religious forces have provided great opportunities and challenges. Equally important, a growing number of scientific studies and reviews suggest that our reproductive health and, ultimately, our reproductive capacity also need to understand (Woodruff et al. 2010). A significant proportion of women's ill-health is due to childbearing and reproduction, making reproductive health a priority public health concern. Increased global interest in women's reproductive health over the last decade has spawned a wealth of information and statistics on the topic, and women's reproductive health has become a crucial area for research and action (Harrison and Montgomery 2001). Furthermore, motherhood or procreation represented an important aspect of the expressed meaning

of reproductive health for women (Kaddour et al. 2005). Having children is central to women's identities, and the only route to womanhood (Winknist and Akhtar 2000). Women gain social status through their reproductive functions, so that their reproductive health has considerable repercussions on their overall existence (Harries and Smyth 2001). Pregnancy is a unique period, since psychological changes and dramatic changes in physiology, appearance and body, and social status are all occurring simultaneously (Leifer 1980). In ancient societies, less than 50 percent of the babies survived to adulthood (Kelly 1994). The days of the Roman Empire was a sad time in the history of child care. Infanticide was widely practiced, both among the rich and the poor; among the poor, babies were considered as burdens and among the rich, they were considered as nuisance (Kelly 1994).

Nowadays, violence against women starts from pre birth selective through sex abortion, female infanticide, neglecting better health care, absence of proper nutrition, child abuse, forced prostitution, trafficking, early marriage, etc. (Sherris 2002). Women marrying at a young age in India have little choice in spouse selection and generally have no prior intimate relationship with their spouse (Dommaraju 2009). Armed conflict has been an important part of the post independence legacy of South East Asia. Women are affected by armed conflict in different ways, like they are often victims of direct violence especially sexual violence by armed soldiers or militants, rape during the war time (Coomaraswamy 2005). Fearing the loss of caste, orthodox caste men tightened the rules governing women's sexual lives, education and public appearance (Raman 2009). Early marriage meant more progeny but they also result great female mortality in child birth. In south India and the Deccan high caste women were got married before puberty (Raman 2009).

Potential risk factors for depressive symptoms during pregnancy include substance and alcohol use and smoking during pregnancy, self-rated poor general health, having a family or personal past history of depression, negative life events, lack of social support, domestic violence and unintended pregnancy (Lancaster et al. 2010). Increasing coverage for use of maternal health services is very important but, there is reason to believe that increasing coverage for utilization of maternal health services alone might not reduce maternal and fetal mortality (Afulani 2015). If population does not provide adequate reproductive health care services, then it can result in high rates of unwanted pregnancy, unsafe abortion, and preventable death and injury as a result of pregnancy and child birth (Kelly 2006). The developing countries, which suffer from the evils of exploitation, unequal distribution of resources, poverty and consequent oppression, inequality, sickness and fatigue, expose women to further risks of socio-political systems (Karkal 1991). Women's issues in these countries are therefore interwoven with prevalent living conditions and the discrimination between the sexes. Because of this fundamental reality, feminism in the developing countries cannot be separated from development or vice versa (Karkal 1991). The domestic violence against women who are poor is more likely to experiences violence than women are not poor (Heisa 1998; Ellsberg et al. 1999; Jwekes 2002). A violence to adverse reproductive health outcomes, evidence from health facility suggested that abused women's reproductive is compromised though much higher rate of gynaecological problem, HIV, sexually transmitted infection (STIs), miscarriage, abortion, low birth weight and unwanted pregnancy (Campbell 2002). Worldwide, over 50 percent of women report having experienced domestic violence (Heise et al. 1999; Kishor and Johnson 2004). Violence toward women during pregnancy has

many far reaching consequences for a woman and her fetus, including serious social and health problems (Naved and Persson 2008).

Maternal health reflects the level of social justice and the degree of respect for women's rights in a society. Women's right to receive good quality health services are guaranteed when their basic human rights to education, nutrition, to a safe environment, to economic resources and to participation in decision making are met (WHO 1999). Many Indian women die in childbirth or shortly thereafter. Almost all cases are the result of unhygienic conditions during lying in, relatively untrained midwives, or inadequate treatment of postpartum (Freed and Freed 1989). After the 1970s, maternal reproductive health has remained on top of the list of issues of international concern. In many developing countries, maternal reproductive health has long been recognized as a most urgent public health and social policy priority (Izugbara 2000). In India till 1977, the major health program was family planning which was changed into family welfare program with maternal and child health becoming an integral part of family planning program with the vision that reduction in birth rate has a direct relationship with reduction in infant and child mortality (Lalmeizo and Reddy 2010). Health of child depends on variables facts like mother's health and behaviour, numbers of children in the household and whether the mothers gave birth as a teenager and also socio economic characteristics (Havknett 2009). Maternal deaths are under reported due to misclassification, absence of registration system, error, or inability to identify maternal mortality (Chung 2003). Maternal and child health has traditionally occupied a central role in the delivery of medical care (Lee and Jay 1974). One of the largest gaps in the world today can be seen in safe mother hood. In fact, maternal mortality is the one global health indicator that shows the largest discrepancy between rich and poor. Each year nearly 530,000 women die

from maternal causes, and 95 percent of these deaths occur in Africa and Asia (Abiad 2005).

In India, reproductive and child health program was launched in 1997 to improve the ante-natal care, institution deliveries with trained health worker and post-natal mother health as well as the child health care services. Later, the National Population Policy (2000) has set a goal to safe motherhood and empowering woman for improving health and nutrition (Chandraker et al. 2009). Reproductive health program are concerned with a set of special health problems, identifiable cluster client group, and distinctive goals and strategies (Pachauri 1998). This will involve several key actions like educating girls and women, reducing the poverty they experience; protecting girls and women from abuses, exploitations, discrimination and violence, fostering their participation and their involvement in household decision making, economic and political life and empowering them to claim their rights and essential services for themselves and their children (Gogoi 2014). Greater involvement of men in maternal and new born health care and addressing gender discrimination and inequalities is also critical to establishing a supportive environment. Preconception care can includes education, health promotion, screening and other invention among women of reproductive age to reduce risk factors that might affect future pregnancies (WHO 2011). Climate change can worsen environmental hazards that threaten the health of pregnant women and increase health risks for the baby, such as low weight of the baby at birth (USEPA 2016). If a baby weighs less than 5.5 pounds at birth, there may be lasting effects on health. Pre-term birth, labor that starts before 37 weeks of pregnancy is considered pre-term, and may lead to health problems (USEPA 2016). Family planning is acknowledged in most developing countries to be an effective way of improving the health of the mothers and children and plays leading roles in

mortality and fertility (Gaya 1995; Cleland et al. 2006). Family planning has long been acknowledged as an effective public health intervention, highly cost effective in decreasing maternal and child health burden of disease (The World Bank 1993). According to the 2011, world contraceptive prevalence rate in Malawi is estimated at 4 percent which is nearly twice the estimate for Sub-Saharan Africa (UN 2011). Several studies of the 19<sup>th</sup> and early 20<sup>th</sup> century show how the religion institution also influences birth control among women (Chakravarti 1989). In later half of the 20<sup>th</sup> century, largely women centered family planning program (FPP) initiated by the government became the main instrument of this control. The appreciation of the needs of civil society in the regulation of fertility was gradually marginalized by these official programs (Boas 1988). To control fertility effectively, women and couples need to have access to correct information about contraceptive methods and be able to afford the method of their choice. The end result at the family level will positively impact the health of women and children, easing pressure on family resources and increasing a family's chances to escape the trap of poverty (Cleland et al. 2006). Abortion care is often excluded from other maternal and reproductive health services such as contraceptive services (Berer 2007). The poorest section of the society suffers from the highest unmet need for family planning and shoulders the largest burden of maternal and child mortality (Prata 2009). Abortion first became legal in India with the passage of the Medical Termination of Pregnancy Act in 1971. The Act came into full effect in the majority of states in 1972 and currently covers all states except Sikkim (Karkal 1991).

Socio-economic dynamics also plays an important role for reproductive health. It is suggested that education has strong effects on child mortality rate and health of the children (Breierova and Duflo 2002). Schooling has increase women's receptivity to

new health related information (Lindenbaum 1990). In low and middle income countries, the majority of women undergoing unsafe abortion are predominantly of poor education, and in less skilled or unskilled occupations (Boonstra et al. 2006). The poor women are usually unemployed; they have less education and more unplanned births; they start childbearing at earlier ages and are frequently unmarried (Lazrus 1988). Poor women are constrained by the conditions under which they have babies and the kind of care open to them (Lazarus 1988). Poverty and ill-health are two major yet interrelated problems of concern in many other third world societies (Sonam 1997). Women's education could influence both the timing of marriage and the first birth interval (Jones 2007). Educated women typically delay marriage. This delay of entry into marriage by educated women may be motivated by a wish to delay childbearing, especially in societies where it is normative to have children quickly after marriage (Jones 2007). It may also be motivated by a variety of other factors not directly related to having children, including higher opportunity costs (Yu 2005) and a shift from traditional to individual oriented values (Caldwell 2005). Working mothers of the family divert their attention towards their job and also provide time for their children facing double burden (Atkinson 1992). Previous research on the determinants of child mortality focused on socio-economic determinants of health, with variables like place of birth, maternal income and maternal education showing a significant association with infant mortality (Wasunna and Mohamad 2002).

In India, caste plays a major role in the life of the people, influencing their socioeconomic activities, and in turn regulating their health status (Raj and Raj 2004). From a health perspective, reproductive health is typically discussed with regards to birth and maternal/child health outcome (Gaydos 2010). All societies have traditional beliefs regarding harmful and beneficial foods for women during pregnancy. There



are also beliefs regarding the optimal amount of food to be taken during pregnancy for a successful reproductive outcome (Nag 1994). Many studies have shown that the food taken by a large section of pregnant women in India is deficient in caloric content, protein and other nutrients a leading cause of maternal and child mortality (Nag 1994). In the case of a difficult delivery, some rites were performed, for instance the woman was given water from her husband's shoe in order to induce vomiting (Djandar 2008). Women's health, particularly in child birth, is not given right for millions of women across the world (Porter 2009). Usually low maternal mortality among Muslim women reflect the fact that they generally live in large villages than other groups and have better access to emergency obstetric care (Bhat 2002). On the basis of geographical zone in India, Maternal mortality levels were lowest in the north-western zone (Bhat 2002).

### **Statement of the problem**

The age at marriage, burden of work at home and in the field at early age, child bearing at early age, high risk during pregnancy and child birth can affect the reproductive health of women (Diyali 2004). Maternal tasks range from the work of child bearing and rearing to the household cares. This required a lot of hard work and the women need to be healthy (Sterk 2006). Thus we see the whole family depend on the women's health. Preconception care like education, health promotion, screening and other interventions among women of reproductive age should be provided to reduce risk factor that might effects future pregnancies (WHO 2011). Therefore, the present study shall be conducted among the Nepali community of Lingmoo village to understand the maternal and child health. The study further aims to understand the issues such as use of contraception, family planning, pregnancy related problems, health facilities, promotion of institutional delivery, awareness of maternal health,

ways of health care practice, common reproductive diseases of women as well as various socio-economic determinants.

**Objective of the study**

- To understand the condition of maternal and child health in Lingmoo village.
- To understand the awareness and utilization of family planning programs.
- To assess the relationship between reproductive health and socio-economic conditions.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

In the late 1980s and now, reproductive health is said to be a holistic approach which describes the process of reproductive health policies, different stresses faced, child birth and care, etc. (Zurayak 2000). The components of reproductive health services include adolescent care, mother-child care clinics, high risk clinics, family planning clinics, and medico-social centre (Engen 2013). Delivery care plays a significant role in the welfare of both mothers and babies. Specifically, it is important that babies are delivered by skilled providers with adequate medical supervision, proper medical attention, and hygienic conditions during delivery, whether in hospital or at home (Pandey et al. 2013). In order to lead a healthy, responsible and fulfilling life and to protect themselves from reproductive health problems, youngsters need to have knowledge about them and need adequate information about the physical, psychological changes that take place during puberty, menstruation, pregnancy and child birth (Mallehappa et al. 2011). Mozambique's high rates of pregnancy and birth related morbidity and mortality are products of poverty and scarcity of health services (Chapman 2000). The reproductive rights of women in Poland have been a central issue in the Polish society, not only from political and religious aspects but also from the feminist perspective and it became the starting point of pro-choice based NGO's (Kirazogla 2013). Approximately 800 women die of pregnancy related complications every day. More than 99 percent of these deaths occur in developing countries and sub-Saharan Africa alone accounts for about 62 percent of these deaths (Afulani 2015). The use of modern methods by married women is higher in Latin America (63%), followed by Asia (48%) (Excluding China) and sub-Saharan Africa (18%).

The current contraceptive level in sub-Saharan Africa represents a modest increase from 13 percent registered around the late 1990s to the beginning of 2000 (Prata 2009). Another studies done in Cairo, large levels of unmet need had prioritized family planning access in 2000, they would have needed to increase their contraceptive prevalence rate an average of 1.5 percent points per year to reach the MDG for reproductive health (Cates and Burris 2010). Among female contraceptives, birth spacing pills showed high appreciation in both settings (40 percent urban and 38 percent rural) irrespective of the various side effects associated with them (Dhingra et al. 2010). Two-thirds of Australian women over the age of 18 were using contraception in 1995 (Kane 2000). In Middle East, North Africa, Asia and Oceania had the highest total Family Planning Effort Index scores in 2014, the absolute increase in their scores between 1999 and 2014 (Kuang and Brodsk 2016). The contraceptive prevalence rate increased from 22 per cent among currently married women in 1998 to 25 per cent. The use of midwives in the United States has increased dramatically over the past two decades. The proportion of births that were attended by midwives grew from 1.0 percent in 1975 to 5.5 percent in 1994; in that year, more than 200,000 babies were delivered by midwives (Rushing 1993). In Nepal Maternal mortality is estimated to be around 540 deaths per 100,000 births. Fewer than 40 per cent of women receive any antenatal care from a trained provider, and fewer than 10 per cent of births take place in a health facility (Lindenbaum 1990). In Northeast Ethiopia, it is found that about three quarters of the women (76.2%) breastfed their child for more than two years. Nearly, two third (65.1%) had more than four live birth, 39.2 per cent of the women were using one of the modern contraceptive methods, of which 89.7 per cent were using inject contraceptives (Tessema 2013).

Poor maternal health remains a major concern in Sub-Saharan Africa with Nigeria occupying a position among the countries with the highest maternal and child mortality rates in the developing nation (Idown et al. 2014). Endemic maternal health has been a major concern in Nigeria as the country has one of the highest maternal and infant/child mortality rates in the world (Idown et al. 2014). With an estimated 52,000 annual deaths, Nigeria accounts for about 10 percent of all maternal deaths globally, and has the second highest mortality rate in the world, after India (Olayinka et. al 2014). In Nova Scotia, socio-economic status (SES), as indicated by family structure, parental education and income, is associated with adolescent sexual activity in the United States (Blum 2000). In Nepal, women in high status households were more likely than those in low and middle status households to report involvement in either type of decision making (43-46%), influence over use of their earnings (26%) and discussion of family planning (68%), the variable of employment and influence over earnings showed significant differences for both ante natal and delivery care (Salway and Furute 2006). In Rajasthan, it has record maternal mortality ration of 318 per 100,000 live births and a high neonatal rate of 44 per 1000 live birth (Iyergar 2012).

In Denmark, the overall risk of still birth was 44 per 1000 and of infant death were 40 per 1000. The risk of still birth increased with the increase in drinking habit of women, it was also found women who drunk four of five times in a week had an 80 per cent of still birth (Wisborg et al. 2003). The most recent UN inter-agency estimates that in 2005, 536,000 women died from cause related to pregnancy and child birth (UNICEF 2009). Infant mortality rate in Indonesia declined from 142 deaths per 1,000 live births in the 1965-70 periods to 52 in the 1993-97 periods. Infant mortality rate is much higher in rural areas than in urban areas. Infant mortality rate

also varies greatly by region, mother's education, birth order, previous birth interval, and mother's age at birth. Infants born to mothers under age 20 are 32 percent more likely to die during the first year of life than infants born to mothers aged 20-29 years (Central Bureau of Statistics 1998). The national family health program in Sri Lanka has received many accolades for reducing the maternal mortality from 2680 in 1936 to 32.5 per 100,000 live births by 2013 (Arambepola 2016). Approximately 60 percent of maternal deaths occur during labour, delivery and the immediate postpartum period, with 50 percent of these deaths occurring within the first 24 hours of delivery (Msella and Kohi 2016). Maternal mortality in Nepal is estimated to be around 540 deaths per 100,000 births. Fewer than 40 per cent of women receive any antenatal care from a trained provider, and fewer than 10 per cent of births take place in a health facility (Lindenbaum 1990).

Today, birth control stands as one of the primary symbols of reproductive rights, reproductive health, and specifically women's control over their bodies. Birth control played a large role in reproductive eugenics efforts in the mid 20<sup>th</sup> century (Wohltjen 2011). Men and women have the right to be informed and have access to safe, effective, affordable, and acceptable methods of family planning of their choice (Fahimi and Ashford 2008). Promotion of family planning would contribute substantially to women's empowerment, achievement of universal primary schooling, and long-term environmental sustainability (WHO 2006). Family planning plays a major role in reducing maternal and newborn morbidity and mortality and transmission of HIV (WHO 2009). Family planning saves lives and can improve the health of women, children and society as a whole (Mason 2010). Since 1960s, the main policy response to rapid population growth has been the implementation of voluntary family planning programs (Bongaarts et al. 2012). By making necessary

changes in the basic health care delivery system, the mission adopts a synergic approach by relating health to determinants of good health namely nutrition, sanitation, hygiene, safe drinking water. The main aim of National Rural Health Mission is to provide accessible, affordable, accountable, effective and relative primary health care, and bridging the gap in a rural health care through creation of cadre of Accredited Social Health Activist (ASHA) (Tiwari et al. 2004). Over 64 million women experience dangerous pregnancy (Aoyama 2009). Despite high knowledge of modern methods of contraception, only 17 percent of married women of reproductive age currently use a modern method of contraception (Rob and Hennink 2004). It is estimate that promotion of family planning in high fertility countries has the potential to avert 32 percent of all maternal deaths and nearly 10 percent of childhood deaths. It is predictable that 25 percent of HIV-positive women have an unmet need for family planning (Cleland et al. 2006). The total family planning effort index score improved by more than six percentage points, from 45 percent to 51 percent, demonstrating steady improvement in programs established 15 or more years ago. The monitoring and evaluation component scores saw the largest growth, with a 7.8 percent point improvement, followed by services and policies at 7.6 percent and 6.7 percent respectively. Finally, access also improved, but by only 2.7 percent points (Kuang and Brodsky 2016).

Family planning measures is one of the reproductive rights. This is helpful in many ways if practiced in a safe way. The Khasi women from Meghalaya used certain vegetables and rice-gourd and papaya and also some herbs to avoid pregnancy and thus as a result they would not have to do abortion for the unwanted pregnancy (Subba 2008). There are many women globally (about 215 million), who do not want to get pregnant but do not use family planning measures (Ringhem et al. 2011). A

study showed that the poverty may be removed with the use of family planning measures as some family showed good progress (Ringhemet et al. 2011). A study done on Dhur Donds showed a higher amount of use family planning measures. These women were somewhat forced to use the family planning without the knowledge of it. The women of this community were mostly sterilized (Chandraker et al. 2009). The study of the Kharia of Orrisa had a lower rate of the use of family planning measures (Basu and Kshtriya 1997).

Female education is the key factor in improving the overall health and hygienic conditions of any country (WHO 2006). For urban women with 10 years and more schooling, safe delivery was 94.6 per cent. Among rural women without any education, access to safe delivery was 16.9 percent. On the other hand, for rural women with 10 years or more of schooling, access to safe delivery was 39.8 per cent (Ghosh 2015). The use of family planning services by women in urban slums is strongly linked to individual and household socio-economic factors. The greater use of family planning shows a good financial condition of the family (Ringhem et al. 2011). At every age, women in high-income countries live longer and are less likely to suffer from ill-health and premature mortality than those in low-income countries. In richer countries, death rates for children and young women are very low, and most deaths occur after 60 years of age (WHO 2009). Poverty or low socio-economic status has an association with increasing various medical and behavioral risk factors that may lead to deliver preterm birth and other adverse pregnancy outcomes (Nagahawatte 2008). The health of the women around the world deteriorates day by day, because of socio-cultural stresses (Gordon and Kanstrup 1992). Low household income directly affects the consumption of food habit and nutritional supplementation, thus increasing the risk for poor pregnancy outcome (Gogoi 2014).



There exist important socio-demographic variations within the urban poor population in relation to their use of family planning services and the barriers faced in service utilization (Rob and Hennink 2004). Study shows that nearly 99 per cent maternal mortalities occurred in economically underdeveloped nations (Hogan et al. 2010). There are nearly 600 million adolescent girls in low and middle income countries, where marriage after menarche is common (Barult 2015). These young wives face problems including limited education, social isolation, coercive sex, maternal morbidity and mortality, and increased STI/HIV risk (Barult 2015). Deaths due to childbirth constitute 2.1 to 2.9 per cent of the total female deaths (Qadeer 1998). Around 16 million girls aged 15-19 years give birth annually, accounting for almost 11 percent of all births globally (Engen 2013). These young mothers are twice as likely to die of pregnancy. The mortality and morbidity rates of infants of young mothers are higher than for older mothers (Ontiri 2015). This is true for all women of religious denomination including Catholic, despite the church's formal opposition to contraceptives methods other than natural family planning methods (Virtala 2007). The proportions of women in India who received at least three antenatal visits for their last pregnancy and medical assistance at delivery increased between 1992 and 2006 from 44 percent to 51 per cent and from 35 percent to 49 percent respectively (Mohanty and Pathak 2009). The proportion of births between 2005 and 2006 that were delivered in a health centre varied from 18 per cent for women with no education to 86 per cent for those with 12 or more years of schooling (Pathak et al. 2011).

Maternal and child health are crucial measures of progress in developing nation. More than 80 million unintended (mistimed or unwanted) pregnancies occur each year worldwide, contributing to high rates of induced abortion, maternal

morbidity and mortality, and infant mortality (Cleland et al. 2006). Suicidal behaviour is a significant public health problem for girls and women worldwide (WHO 2009). Mental health problems, particularly depression, are major causes of disability for women of all ages. While the causes of mental ill-health may vary from one individual to another, women's low status in society, their burden of work and the violence they experience are all contributing factors (WHO 2009). Study suggested that 40 per cent of all maternal pre-natal deaths are linked to anemia (Noronha et al. 2008). A high prevalence of anemia in pregnancy was observed 96.5 percent, of which 22.8 percent had mild, 50.9 percent had moderate and 22.8 percent had severe anemia in a study conducted in Delhi (Noronha et al. 2008). The reported incidence of anemia varied from 40 to 90 percent in various states of India and contributed to 10 to 15 percent of the direct maternal deaths (Noronha et al. 2008). There were nearly half a million cases of abortion in 2000, translating to a rate of eighteen induced terminations per hundred pregnancies (Bautista 2010). China has made impressive progress in maternal health. The overall maternal mortality ratio decreased from 64 per 100 000 in 1996 to 38 per 100 000 in 2008; overall hospital births increased to 94.7 per cent of all live births in 2008 and overall contraceptive use was above 80 per cent in 2006 (Thomsen 2011).

There is growing awareness that domestic and sexual violence is a problem of public health significance worldwide (Heise et al. 1994). Many studies of intimate partner violence with women's reproductive health as well as the impact child survival and health have been documented (Heise 1994; Jejeebhoy 1998; Moore 1999; Maman et al. 2000). Overall, 43 percent of women reported having been physically abused by their husbands at some point in their marriage, while only 21 percent of men admitted ever having abused their wives (Verma and Collumbien 2003). Epidemiological

findings indicate that both breast cancer incidence and survival are related to socio-economic factors. Women of lower socio-economic status are at lower risk of developing breast cancer (Van et al. 1995; Faggians 1997). In 1993, 99 percent of the breast cancer cases were morphologically or cytological verified and the overall reporting to the Cancer Register was estimated to be about 96 percent of all diagnosed cases (Garne et al. 1995). In Sri Lanka, more than 50 percent of all induced abortions worldwide are unsafe, of which more than 98 percent are performed in the low and middle income countries (WHO 1992). Approximately 47,000 die of complications following unsafe abortions each year, giving a case fatality rate of 220 deaths per 100,000 unsafe abortions. This rate is nearly 350 times higher than that associated with legal induced abortion.

Beside others facts, the age at menarche is one of the important parts in a women's life. Study done by different scholars on the menarche reveal that there are lots of factors affecting onset of menstruation (Chandraker et al. 2009). This could be genetic, nutritional and environmental factors. In some parts of the world there are some sorts of initiation ceremony celebrating the onset of puberty (Lahiri et al. 2014). The age at marriage of the both the male and females has to do a lot with the reproductive health. A study on the Dhur Gond women of Chhattisgarh showed that the marriages took place at a very young age adolescent (Chandraker et al. 2009). Absence of the right to take decision of the women and socioeconomic factors could be responsible for the marriage at a young age. Sometime the girls were forced to get marry so that family would have less socioeconomic problem (Sarker 2011).

Poverty, maternal health and outcomes for the child are all interconnect. Neonatal deaths in developing countries account for 98 percent of worldwide yearly neonatal deaths. It is said that poverty is detrimental to the health of both mother and baby

(WHO 2011). The health of the women around the world deteriorates day by day, because of these socio-cultural stresses. "Women's sexuality represents the interface between two of the most potent and insidious forms of oppression –gender and sexuality" (Gordon and Kanstrup 1992). Women from many communities around the world do not have the required knowledge of reproductive rights. Most studies of the maternal and child health show that the loss of income becomes a factor for bad health of the mother and the child which requires being checked (Asian Development Bank 2012). Child health is affected by malnutrition and infection; and if the child is affected with infections then he/she will obviously have disturbances in the nutritional status (The World Bank 2008). Environment plays an important role in the child health. If a child is brought up in an unhygienic place then may be the child would be affected by certain health problems which result in increased number of child mortality (The World Bank 2008). The developing countries face the risk of increased child mortality rate. This showed the requirement for strengthening the bond between mother and child during the child's neo natal period (Dutt and Srinivasa 1997).

In Sikkim, infant mortality rate have always been lower than those for the nation. In the late 1980s a sharp decline has been recorded (moving from 77 per thousand in 1988–90 to 37 per thousand in 1992–4). However, since 1993–95, there has been an increase in infant mortality rate (moving from 47 per thousand to 51 per thousand), that is indeed disturbing (Lama 2001). Female babies below the age of one year have far higher death rate 22.28 percent than male babies 15 percent. It is because of the low rate of child immunization; only around 53 per cent of children below the age of one year (both rural and urban) were immunized against all six vaccine preventable disease. Only 62 percent of rural children and 66 percent of urban children below the age of five were fully immunized (Diyali 2004).

## **CHAPTER III**

### **MATERIALS AND METHODS**

#### *Land and People*

Sikkim is a small and beautiful multi-ethnic state, located in the Eastern Himalayas covering a geographical area of 7096 sq km, representing a meagre (0.22%) portion of India's geographical area. The State is divided into four districts, namely North, West, East and South. The state is bounded on 3 sides by the international border of Tibet, Bhutan and Nepal in the North-East, East and West respectively and south by the Darjeeling district of West Bengal. It has a total population of 607688, of which 3,21,659 are males and 2,86,027 are females. There has been a steady growth in population in Sikkim in the last many decades. The population of Sikkim has increased from 1,09,808 in 1931 to 610577 in 2011. The literacy rate of Sikkim is estimated more than 82.32 per cent (Paul 2017). The state capital city Gangtok recorded a population of 98,658 having 51,820 males and 46,838 females. The population grew by 12.36 per cent in the last decade (Paul 2017). The major ethnic groups of the region are Lepcha, Bhutia and the Nepalese. Each of these ethnic groups and sub-groups has its own distinct culture, language and traditions (Hussain and Hore 2009). Hindu temples coexist with Buddhist monasteries and there are even a few Christian churches, Muslim mosques and Sikh Gurudwaras. In terms of religious beliefs the population of Sikkim is predominantly Hindu (68 per cent), followed by Buddhist (27 per cent) and Christian (3 per cent) of the total population (Diyali 2004). Though strongly influenced by Tibet in religion and customs, politically and economically the major factors of change have resulted from its close ties with India.

It was a protectorate of India until 26th April 1975, when it became the twenty second state of the Union of India (Bhasin et al. 1986).

On the social-ritual ground, the Nepalese in Sikkim may be divided into two groups: the '*Tagadhari*'- those who wear sacred thread such as Brahmin and Gorkhas, and the '*Matwali*' those who do not put sacred thread and are in the habit of drinking (Joshi 2004). The Nepali language is spoken and understood all over the State. This language is similar to Hindi and uses the Devangri script. Nepali is the language of Eastern Pahari Group of an Indo-Aryan family. Nepali is one of the 22 Scheduled languages of India. In Indian Census prior to 1991, the language was identified as Gorkhali/Nepali. From 1991 Census onwards it is appearing as Nepali. The traditional male Nepali dress consists of long double breast garment flowing below the waist and a trouser known as '*Daura Suruwal*'. The female dress consists of a double breasted garment with strings to tie on both the sides at four places, which is shorter than the '*Daura*' and is known as '*Chow Bandi Choli*'. They also wear a shawl known as '*Majetro*'. The '*Khukri*' which has become a synonym to the Nepali culture, is a very sharp edged, angled, heavy weapon carried in a wooden or leather scabbard known as '*Daab*.'

There are three social institutions existence in every society. They are marriage, birth rites, and death rites. The Nepali community of Sikkim also do fallow such rites of passage. Marriage pattern among the Nepali takes place in such a way like matching the horoscope of the boy and the girl is considered important for happy marital life. They are compared and a date is set for the marriage ceremony. Before the actual wedding, most of the time, a small or a detailed engagement ceremony (depending upon the financial status of the bride's family) takes place. Here, a male member from the bride's party presents the ring to the groom and vice versa. Also the bride's party

gives presents to the groom's side. On the actual wedding day, the bride's party comes to the wedding venue earlier than the groom's party in order to welcome them. Birth ritual is very simple among Nepali it is also called birth naming day or "*Narwan*". It is performed on 11<sup>th</sup> days after birth of new born child, according to his/her horoscope name will be given by elder people or priest of the village. Death rites among the Nepali take place in such a way that the dead are cremated on the banks of the holy river. It is the ultimate wish of a Hindu to be cremated along with the river bank. The body must be dipped into the river three times before cremation.

Climate of Sikkim is cold winter in the month of November to February with minimum temperature dipping to 4 centigrade during January to February. Though summer is officially from May to October, Sikkim is almost wet due to the heavy monsoon. The state receives an annual rainfall of 2000 to 4000 mm. The flora and fauna of Sikkim includes a variety of species of plants. The abundance of flora in the state can be understood from the fact that the forest covers as much as 36 percent of the total area of Sikkim. There are about 4000 different types of plants in Sikkim. The economy of the village is mainly based on agriculture and animals husbandry. The Nepali immigrants during the last century introduce terrace farming in the state. This gave a considerable boost to the agriculture yield. Several vegetables include paddy, maize, potato, cucumber cabbage, chilly, cauliflower, etc. Cardamom, ginger, orange and broom sticks are the important commercial crops.

The status of women in Sikkim in terms of their economic contribution, socio-cultural autonomy, authority, involvement in the decision making process within the household varies across communities. The practice of polyandry among tribal communities could be one of the variables explaining the higher value attached to women. Similarly, local religious practice also plays a role in influencing the status of

women (Dhamala, 1985). During past generation, the woman is considered to be a goddess in Nepali community. But she has no rights of inheritance. It is only when a daughter remains unmarried that parents customarily transferring some property to her. Participation of women in economic activities is high in Sikkim. The women, especially in the rural areas are involved in agricultural operations from sowing to harvesting. It has been their responsibility traditionally to collect fuel wood and fodder for the family and fetch water from 'dharas' (springs) in vessels which they carry in a 'doko' (basket) on their backs. Such practices are declining these days. Each household of Sikkim are getting either tap water or spring water from nearby sources. They are responsible for all domestic tasks including the caring for domestic animals. Women also work as paid agricultural labourers, construction workers, and take part in economic activities like selling of vegetables in the market place. They contribute to the income of the family also through their traditional skills in spinning and weaving. Given the geographical conditions of rugged steep terrain, heavy rainfall etc., the women have to directly bear the brunt of all climatic hazards. The heavy load of work in the daily lives of Sikkim's women has serious implications for their health. This is more so because the families are large in Sikkim, 30 percent of rural families and 22 percent of urban families have more than 6 members. Early marriages have been the norm in most of the traditional societies based on agricultural economies where social and economic ties between generations are strong. Heavy workload coupled with early marriages, between 16–20 years; take their toll on women's health. This is reflected in the declining sex ratio in the age group of 29–60 in Sikkim (Lama 2001). Integrated Child Development Scheme (ICDS) in Sikkim was introduced in 1991. It has been 26 years ICDS providing health care among the women and children, which is run by Aganwadi centre. It plays an important role especially for



lactating mother, pregnant women and even children under age of five years get nutrition and others supplements.

### ***Study Area***

The present study was conducted on reproductive health among the Nepalese community of Lingmoo, South Sikkim. It is located 34 km towards the district headquarter, Namchi. The term 'Lingmoo' means to assemble for meeting. The Nepali community constitutes 70 percent of the total population of Sikkim. The Nepali communities living in Lingmoo village are mostly Chettri, Sharma, Kami, Damai, Rai, and Limboo people. The language spoken by the Nepali people is of Devanagri script, which is understood and spoken commonly all over the state. The Lingmoo village has population of 1546 as per Population Census 2011.

The entire data was collected from married women through interviews using structured schedules, following a house to house survey. Total data of 251 samples was collected from married women. Data was collected during the period from June, 2017 to August, 2017 in Lingmoo village of South Sikkim. The women were selected randomly for the present study between the age groups 18 to 60 years. The reproductive health information such as information on the numbers of conception, total live birth, child health, age at marriage, birth orders, age, sex, marital status of each offspring, cause of death, if any, reproductive wastage (abortion and still births), etc. was collected through in-depth interview from each of the married women. Special attention was also made to collect data on socio-economic parameter like occupation, household income, household expenditure, educational attainment of household members especially married women, religious affiliation, awareness and adoption of the family planning method, use of contraception, health care practices etc.

The data on income was divided into three groups-high income group (above 75<sup>th</sup> percentile), middle income group (between 50<sup>th</sup>-75<sup>th</sup> percentile) and low income group (below 50<sup>th</sup> percentile). The educational qualification of the married women was divided as illiterate (those who did not go to school), primary (those who attained class I to class V), secondary (those who studied up to class X) and higher secondary and above (those who studied above class X). The data on type of houses was divided as *pakka* house and *kaccha* house. The data on type of family was divided as joint family and nuclear family. The data on marriage pattern of married women was collected through inter marriage and intra marriage. The data on pregnancy history of the mother were collected on the basis of age at menarche, total number of conception, number of live birth, number of death after live birth, age at death and cause of death also recorded. The data on place of delivery was collected as delivery at hospital delivery and the both. Data on delivery record was collected as normal or complicated. The data on any illness during pregnancy also collected through recall method. Data on methods of family planning was also collected directly from the married women. Data on support for government initiative for two child scheme was recorded. Data on mother health includes special care during pregnancy, health condition of the mother after and before pregnancy; check up during pregnancy, nutrition and supplementary foods, tablets during pregnancy and problem during child birth. Data on health of the children includes age of semi-solid food consumption; mothers breast milk consumption, health check up, vaccination, polio drops and overall health care of the children.

### *Statistical Analysis*

The data were analyzed using MS-Excel for the present research. The parameters taken were analyzed statistically to find out the mean and standard error. The data were analysed to understand the maternal and child health. The reproductive health of the married women were analysed in relation to socio-economic conditions, different types of health care's and family planning methods. The health of the children are also analysed in relation with the socio-economic conditions of the mothers. In order to test the level of significance for various analyses, both t-test and chi-square test was used.

## CHAPTER IV

### RESULTS

The findings of the present study are mentioned in this chapter. The education level of Nepali married women of Lingmoo village in different age groups are given in table-1. Out of total 251 women, 22.31 percent of the women were illiterate, 27.09 percent were studied up to primary education, 39.84 percent of women were studied up to secondary education and 10.75 percent of women were studied up to higher secondary education and above.

Table-1: Education level of Nepali married women of Lingmoo village in different age groups

Age Groups	No of Informants	Illiterate	Primary	Secondary	Higher Secondary+
≤25	33	0 (0.00%)	7(21.21%)	23(69.69%)	3(9.09%)
26-35	100	8(8.00%)	34(34.00%)	43(43.00%)	15(15.00%)
36-45	60	13(21.66%)	21(35.00%)	23(38.33%)	3(5.00%)
46+	58	35(60.34%)	6(10.34%)	11(18.96%)	6(10.34%)
Total	251	56(22.31%)	68(27.09%)	100(39.84%)	26(10.75%)

Table-2 shows the occupation of married women of Lingmoo village. Out of the 251, the frequency of married women who are housewife (88.04%) was reported higher in the present study. This was followed by the frequency of married women who are government employees (7.56%). The frequency of married women who are engaged in other occupations was 4.38 percent.

Table-2: Occupation of Nepali married women of Lingmoo village in different age groups

Age group	No. of Informants	Housewife	Govt. Employee	Others
≤25	33	32(96.96%)	1(3.04%)	0(0.00%)
26-35	100	86(86.00%)	8(8.00%)	6(6.00%)
36-45	60	50(83.33%)	6(10.00%)	4(6.66%)
46 +	58	53(91.37%)	4(6.86%)	1(1.72%)
Total	251	221(88.04%)	19(7.56%)	11(4.38%)

Marital status of the 251 Nepali married women of Lingmoo village is given in table-3. Out of 251 women, the frequency of married women who are still living with husband was 93.62 percent. The frequency of women who are either widow or separated was 6.37 percent.

Table -3: Marital Status of Nepali women in Lingmoo village in different age groups

Age Group	No. of Informants	Living Spouses	Window /Separated
≤25	33	32(96.96%)	1(3.03%)
26-35	100	98(98.00%)	2 (2.00%)
36-45	60	55(91.66%)	5 (8.33%)
46 Above	58	50(86.20%)	8(13.79%)
Total	251	235(93.62%)	16(6.37%)

Table 4 shows the mean age at marriage and mean age at first child birth of married men and women. In present study, the mean age at marriage among men and women was  $23.96 \pm 5.52$  and  $19.47 \pm 3.63$  respectively. The mean age at first child birth among men and women was  $25.86 \pm 5.29$  and  $21.37 \pm 2.92$  respectively.

Table-4: The mean age at marriage and first child birth of males and females of Lingmoo village

Sex	Mean Age At Marriage $\pm$ SD	Mean Age At First Child $\pm$ SD
Male	23.96 $\pm$ 5.52	25.86 $\pm$ 5.29
Female	19.47 $\pm$ 3.63	21.37 $\pm$ 2.92

Table 5 shows the place of delivery and delivery record of the mothers. Out of 251 women, the higher frequency of delivery of the married women was at hospital (67.73%). This was followed by the place of delivery at home (30.68%) and both (1.59%). In case of delivery records, the higher frequency was normal (82.87%). This was followed by complicated delivery (11.95%) and both (5.18%).

Table-5: Place of delivery and delivery record of married women of Lingmoo Village

No. of Mothers	Place of Delivery			Delivery Record		
	Hospitals	Home	Both	Normal	Complicate	Both
251	170 (67.73%)	77 (30.68%)	4 (1.59%)	208 (82.87%)	30 (11.95%)	13 (5.18%)

Table 6 shows, the pregnancy history of women of the studied population. Out of 718 pregnancies of 251 women, the frequency of live birth was 90.95 percent. The frequency of abortion, miscarriage, still birth, infant death and death after five years were 0.97 percent, 0.97 percent, 1.25 percent, 2.29 percent and 2.29 percent respectively.21 (2.92%) respectively.

Table 6-: Pregnancy History of the Nepali married women of Lingmoo village

No of Mothers	Total Pregnancy	Total Live Birth	Total of Abortion	Total Miscarria-ge	Still Birth	Infant Death	Death After 5 Years
251	718	653 (90.95%)	7 (0.97%)	7 (0.97%)	9 (1.25%)	21 (2.92%)	21 (2.92%)

Table-7 shows the special diet and medical care taken by married women during the pregnancy. Out of 251 women, the frequency of married women who took special diet during pregnancy was 83.27 percent. 16.73 percent of women say that they did not take special diet during pregnancy. Table further shows that 97.61 percent of married women took medicines like folic acids, vitamins, iron, calcium etc during pregnancy. The frequency of 2.39 percent married women did not take any kind of medicines during pregnancy.

Table -7: Special diet and medical care during Pregnancy of Lingmoo village

No. of Informants	Special diet during pregnancy		Medical care during pregnancy	
	Yes	No	Yes	No
251	209(83.27%)	42 (16.73%)	245(97.61%)	6 (2.39%)

Table 8 shows the breast feeding record, kind of problems during the initial stage of breast feeding and duration of given semi liquid food for their children. The higher frequency of children breast feeding twelve months above was 78.88 percent. Whereas, the frequency of children breast feeding up to eleven months was 21.12 percent. During the initial stage of breast feeding, 16.33 percent of children had problem while breast feeding. Whereas, the frequency of 83.66 percent of children did not have problem while breast feeding. Table further shows that 71.71 percent of women provide semi solid food after six months. The frequency of 28.29 percent of women provided semi solid foods to their children after one years.

Table-8: Breast feeding, problem during initial stage of breast feeding and semi liquid food for their children

No. of Mothers	Breast feeding		Problem of breast feeding		Semi liquid food	
	1 To 11 months	12+ months	Yes	No	After 6 months	After 1 year
251	53 (21.12%)	198 (78.88%)	41 (16.33%)	210 (83.66%)	180 (71.71%)	71 (28.29%)

Table 9 shows polio drops and immunization of children of Lingmoo village. Table shows that 88.45 percent of mothers took their children for polio drop. Whereas, 11.55 percent of mothers did not take their children for polio drops. Table further shows that higher frequency of mother (91.24%) took their children for immunization. Whereas, 8.76 percent mothers did not take their children for immunization.

Table-9: Polio drop and immunization of the children under the age of 5 years in Lingmoo village

No of women	Polio drop		immunization	
	Yes	No	Yes	No
251	222 (88.45%)	29 (11.55%)	229 (91.24%)	22 (8.76 %)

The used of family planning by educational level of mothers is given in table-10. The higher frequency of mothers who used family planning was found more or less the same between the primary education (27.94%) and secondary education (28.00%). This was followed by women who studied higher secondary education and above (22.22%). The frequency of mothers who used family planning among illiterate was 12.05 percent. The total frequency of women who used family planning was 23.90 percent. The frequency of mothers who used pill as family planning methods among illiterate, primary education, secondary education and higher secondary and above was 100 percent, 94.47 percent, 89.28 percent and 50 percent respectively. Table



further shows that the total frequency of mothers who used pill as family planning method was 88.33 percent. Whereas, the frequency of mothers who used other methods of family planning was 11.67 percent. The differences in the use of pills and other methods of family planning in different educational levels are statistically significant ( $\chi^2=10.260$ ;  $df=3$ ;  $p<0.05$ ).

Table-10: Use of family planning by different educational levels of Nepali women in Lingmoo village

Educational level	No. of mothers	No. of mothers using family planning Measures	Methods	
			Pills	Others
Illiterate	56	7(12.05%)	7(100.00%)	0 (0.00%)
Primary	68	19(27.94%)	18(94.47%)	1(5.26%)
Secondary	100	28(28.00%)	25(89.28%)	3(10.72%)
Higher Sec.+	27	6(22.22%)	3(50.00%)	3(50.00%)
Total	251	60(23.90%)	53(88.33%)	7(11.67%)

$$\chi^2=10.260; df=3; p<0.05$$

Figure 1: Use family planning by different educational levels of Nepali women in Lingmoo village

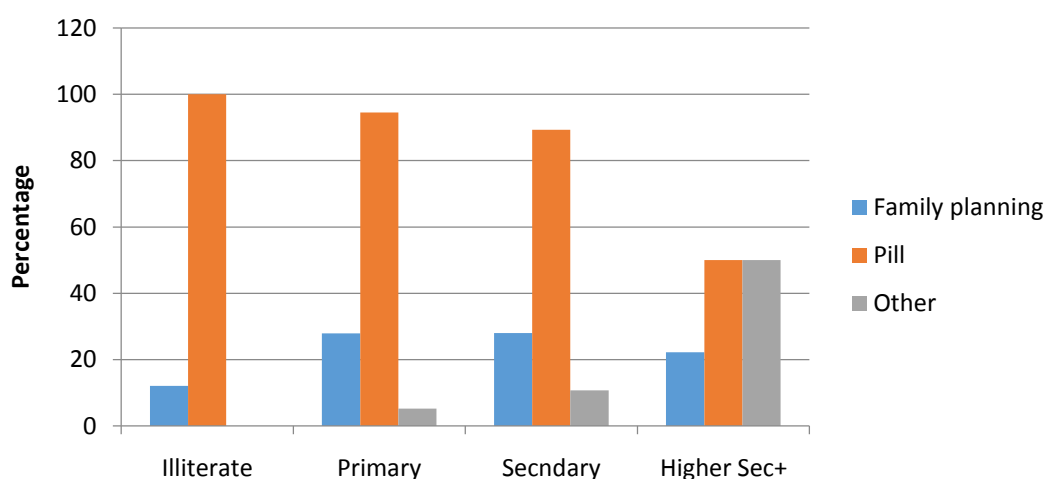


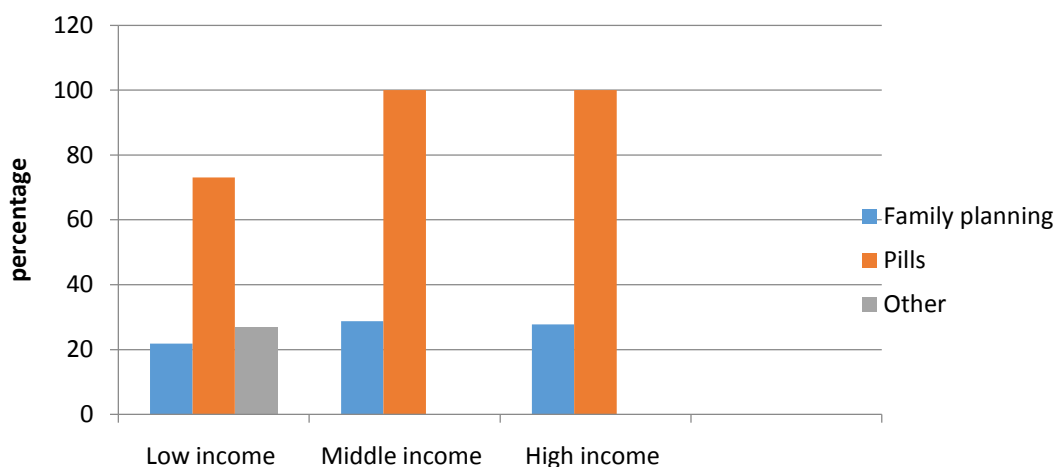
Table 11 shows the use of family planning by different income levels. The higher frequency of family planning was used by women belongs to middle income group (28.79%). This was followed by women belongs to higher income family (22.73%) and low income family (21.85%). Table further shows that women belonging to middle income family (100%) and higher income family (100%) used pill as method of family planning. The frequency of 73.08 percent of women belongs to low income family used pill as method of family planning. The frequency of 26.92 percent of women belongs to low income family used other methods of family planning. The differences in the use of pills and other methods of family planning in different income levels are statistically significant ( $\chi^2=10.362$ ;  $df=2$ ;  $p<0.05$ ).

Table-11: Family planning measures with income groups among the Nepali women in Lingmoo village

Income level	No. of mothers	Use of family planning	Method	
			Pills	Others
Low Income	119	26 (21.85%)	19(73.08%)	7(26.92%)
Middle Income	66	19 (28.79%)	19(100.00%)	0(0.00%)
High Income	66	15 (22.73%)	15(100.00%)	0(0.00%)
Total	251	60 (23.90%)	53(88.33%)	7(11.67%)

$\chi^2=10.362$ ;  $df=2$ ;  $p<0.05$

Figure 2: Family planning measures with income groups among the Nepali women in Lingmoo village



The use of family planning by different educational levels of women is given in table-12. The table shows that the higher frequency of family planning was used by women engaged in other occupations (27.27%) followed by government employee (26.32%) and housewife (23.54%). Table further shows that higher frequency of pill as family planning methods was used by housewife (88.46%) followed by government employee (80.00%) and other occupations (66.67%). The frequency of women who used other methods of family planning was higher among other occupations (33.33%) followed by government employee (20.00%) and housewife (11.54%).

Table-12: Family planning measures by different occupational group of Nepali women in Linmgoo

Occupation	No. of mothers	Use of family planning	Method	
			Pills	Others
Housewife	221	52(23.54%)	46 (88.46%)	6 (11.54%)
Govt. Employee	19	5 (26.32%)	5(100.00%)	0(0.00%)
Others	11	3(27.27%)	2(66.67%)	1(33.33%)
Total	251	60 (23.90%)	53(88.33%)	8(11.67%)

$$\chi^2=3.773;df=2p>0.05$$

Figure 3: Family planning measures by different occupational group of Nepali women in Linmgoo

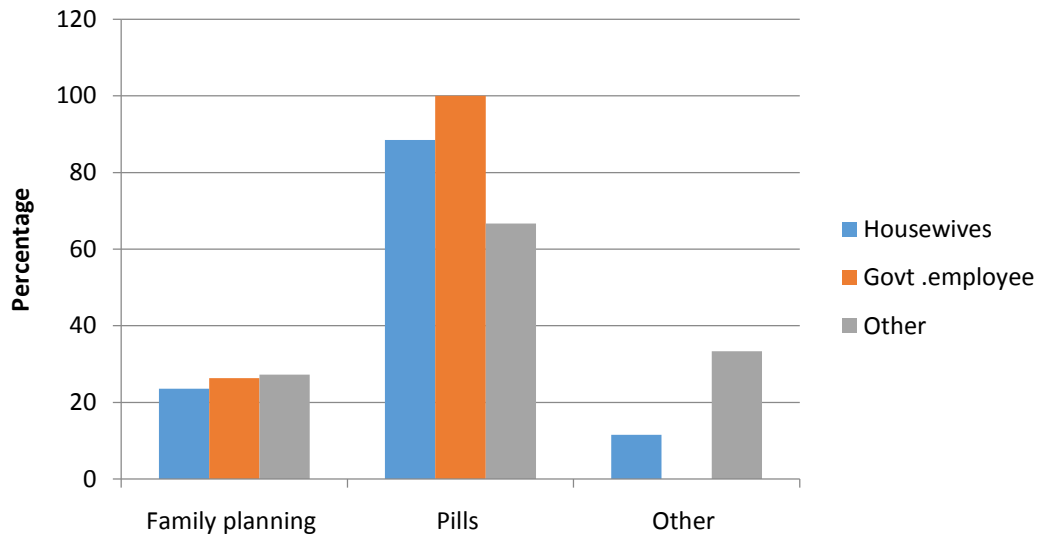


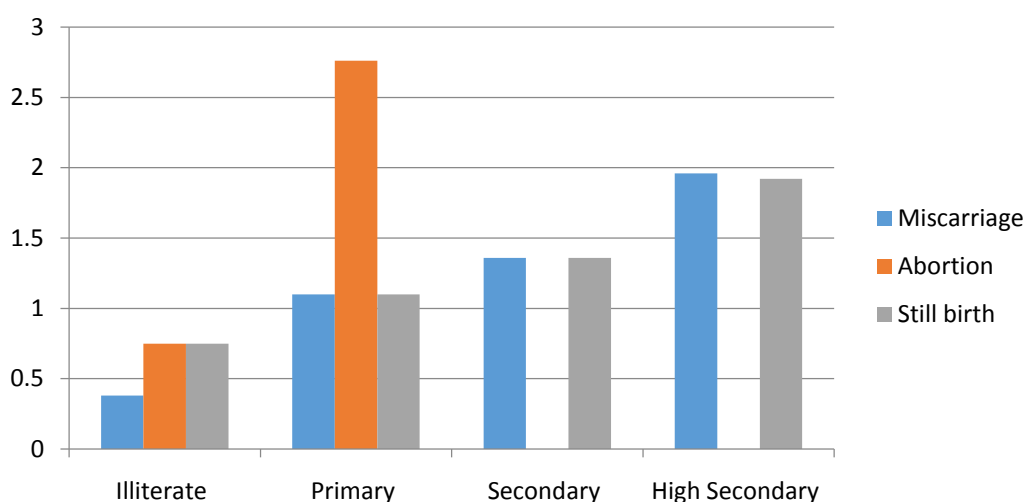
Table 13 shows the relationship between educational status and reproductive wastage of married women of Lingmoo village. The frequency of miscarriage was slightly higher among higher secondary educated women (1.96%) secondary education (1.36%), primary education (1.10%) and illiterate women (0.38%). Similarly, the frequency of still birth was higher among women who attained higher secondary education (3.92%). This was followed by women who attained secondary education (1.36%), primary education (1.10%) and illiterate (0.75%). In case of abortion, it was higher among women who attained primary education (2.76%) followed by illiterate (0.75%). Out of 251 women, in the all the educational levels, the frequency of miscarriage, abortion and still birth was 0.97 percent, 0.97 percent 1.25 percent respectively.

Table-13: Reproductive wastage in relation with educational levels of Nepali women in Lingmoo village

Educational level	No. of mothers	No. of pregnancy	No. of miscarriage	No. of abortion	Still birth
Illiterate	56	266	1(0.38%)	2 (0.75%)	2(0.75%)
Primary	68	181	2(1.10%)	5(2.76%)	2(1.10%)
Secondary	100	220	3(1.36%)	0(0.00%)	3(1.36%)
Higher Sec.+	27	51	1(1.96%)	0(0.00%)	2(3.92%)
Total	251	718	7(0.97%)	7(0.97%)	9(1.25%)

$$\chi^2=7.371;df=6;p>0.05$$

Figure 4: Reproductive wastage and educational levels of the mothers of Nepali women in Lingmoo village



The frequency of reproductive wastage in relation with income is given in table-14. The frequency of miscarriage was higher among women belongs to middle income (2.47%) followed by women belongs to low income group (0.76%). The frequency of abortion was slightly higher among women who belongs to middle income (1.23%) followed by low income (1.01%) and high income group (0.62%). In case of still birth, the frequency was higher among women who belong to middle income (1.85%). This was followed by women belongs to higher income group (1.24%) and low income group (1.01%). Out of 718 pregnancies from 251 women, the frequency of

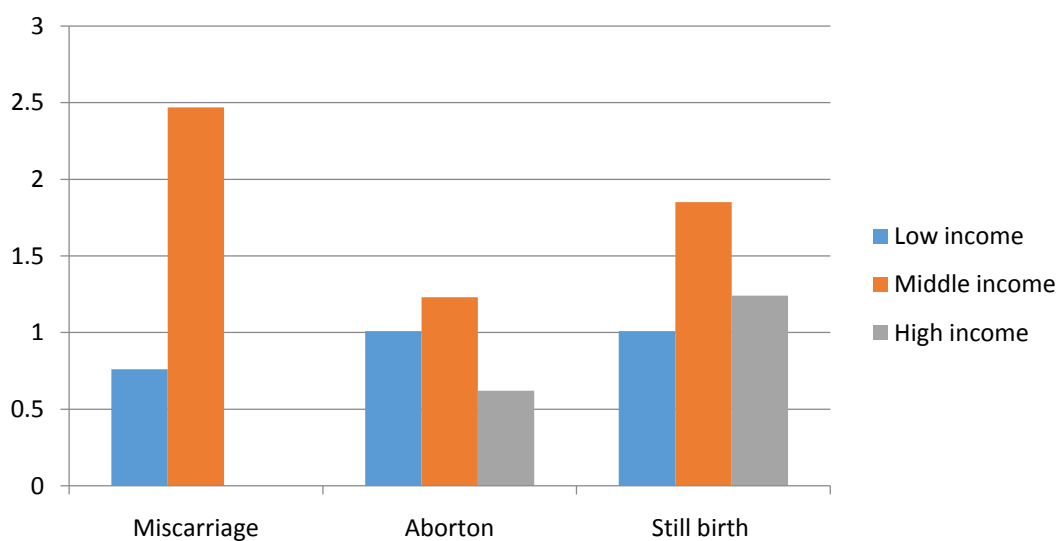
miscarriage, abortion and still birth was 0.97 percent, 0.97 percent and 1.25 percent respectively.

Table-14: Reproductive wastage in relation with income levels of Nepali women in Lingmoo village

Income Groups	No. of mothers	No. of pregnancy	No. of miscarriage	No. of abortion	Still birth
Low Income	119	395	3(0.76%)	4(1.01%)	4(1.01%)
Middle Income	66	162	4(2.47%)	2(1.23%)	3(1.85%)
High Income	66	161	0(0.00%)	1(0.62%)	2(1.24%)
Total	251	718	7(0.97%)	7(0.97%)	9(1.25%)

$$\chi^2=3.763; df=4; p>0.05$$

Figure 5: Reproductive wastages and income level of Nepali women in Lingmoo village



Reproductive wastage in relation with occupation of Lingmoo village is given in table-15. The case of miscarriage was found only among women who are housewife (1.09%). The frequency of abortion was higher among women who are government employee (1.92%) than housewife (0.94%). Similarly, the frequency of still birth was higher among women who are government employee (3.84%) than housewife (0.94%).

Table-15: Reproductive wastage in relation with occupation of Nepali women of Lingmoo village

Occupation	No. of Mothers	No. of pregnancy	No. of miscarriage	No. of abortion	Still birth
Housewife	221	638	7(1.09%)	6 (0.94%)	6(0.94%)
Govt Employee	19	52	0(0.00%)	1(1.92%)	3(3.84%)
Others	11	28	0(0.00%)	0(0.00%)	0(0.00%)
Total	251	718	7(0.97%)	7(0.97%)	9(1.25%)

$$\chi^2=3.112; dff=4; p>0.05$$

Figure 6: Reproductive wastage and occupations among the Nepali women of Lingmoo village

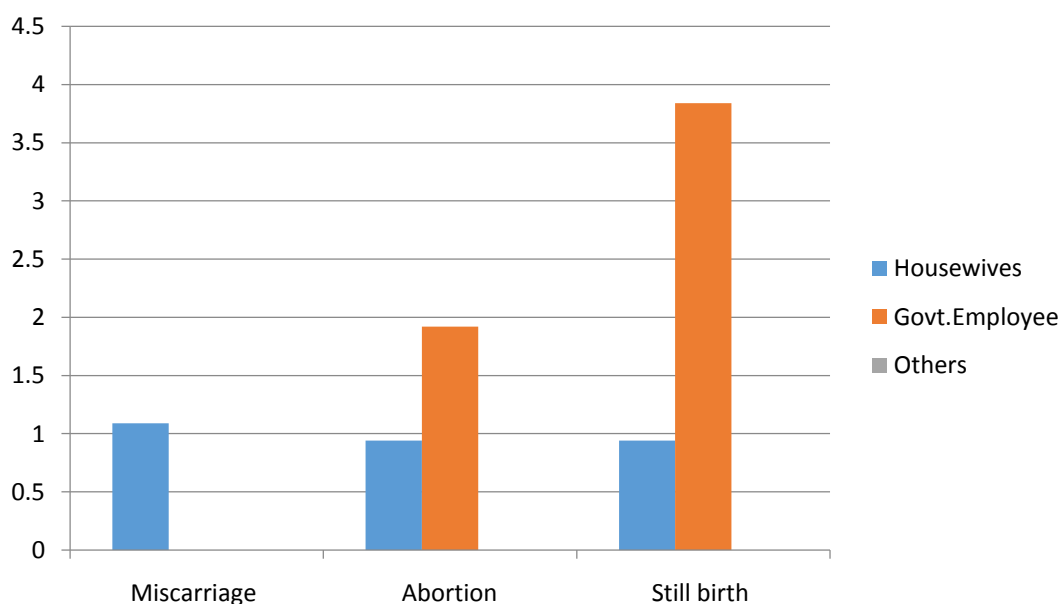


Table 16 shows the relationship between live birth and infant mortality in relation with educational levels of the mothers. The frequency of live birth was higher among women who attained secondary education (94.54%). This was followed by women who attained primary education (90.06%), illiterate (89.47%) and higher secondary and above (86.27%). In case of infant death, the frequency was slightly among women who are illiterate (3.78%). The frequencies of infant death among women who attained primary education, secondary and higher secondary education were 3.68

percent, 2.40 percent and 2.27 percent respectively. Out of 718 pregnancies from 251 women, live birth rate and infant death rate was 90.95 percent and 3.21 percent respectively.

Table- 16: Live birth and infant mortality in relation with education levels of Nepali women of Lingmoo village

Educational level	No. of mothers	No. of Pregnancy	No. of live birth	Live birth rate	No. of Infant death	Infant death rate
Illiterate	56	266	238	89.47%	9	3.78%
Primary	68	181	163	90.06%	6	3.68%
Secondary	100	220	208	94.54%	5	2.40%
Higher Secondary+	27	51	44	86.27%	1	2.27%
Total	251	718	653	90.95%	21	3.21%

$$\chi^2=1.499; df=3;p>0.05$$

Figure 7: Live birth and infant mortality in relation with educational level among the Nepali women of Lingmoo village

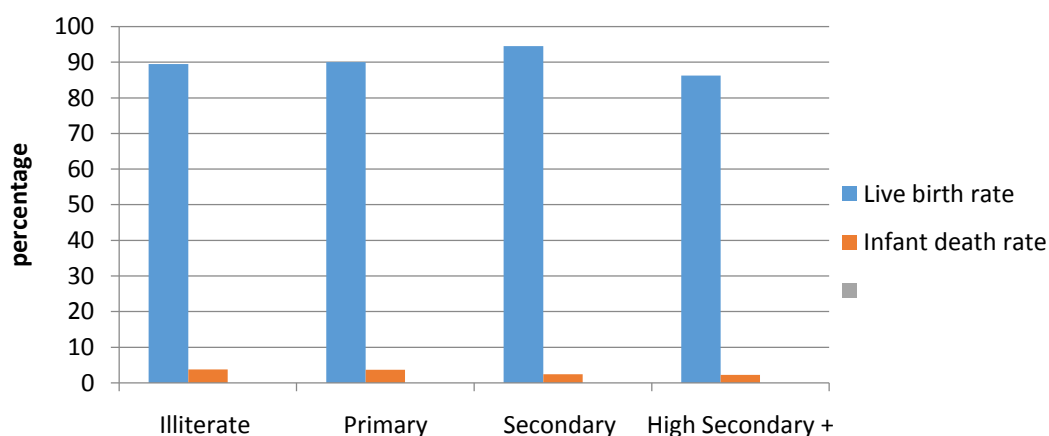


Table 17 shows the relationship between live birth and infant mortality in relation with income levels of the mothers. The frequency of live birth was higher among women who belong to low income group (94.94%). This was followed by women who belong to middle income group (90.12%) and high income group (81.99%). In case of infant death, the frequency was higher among women who belong to middle



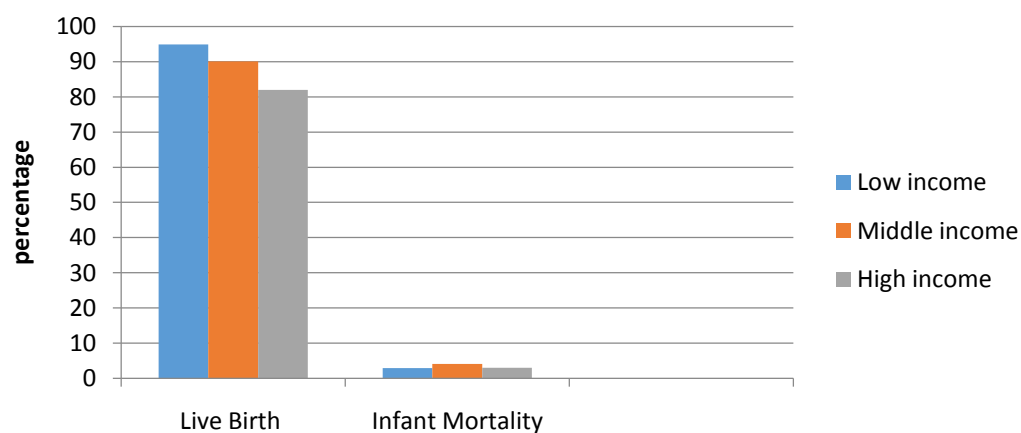
income group (4.11%). The frequencies of infant death among women who belong to high income group and low income group were 3.03 percent and 2.93 percent respectively.

Table-17: Live birth and infant mortality in relation with income levels of Nepali women of Lingmoo village

Income level	No. of mothers	No. of pregnancy	No. of live birth	Live birth rate	No. of Infants death	Infant mortality rate
Low	119	395	375	94.94%	11	2.93%
Middle	66	162	146	90.12%	6	4.11%
High	66	161	132	81.99%	4	3.03%
Total	251	718	653	90.95%	21	3.21%

$$\chi^2=0.995;df=2;p>0.05$$

Figure 8: Lives birth and infant mortality in relation with income level among the Nepali women of Lingmoo village



The relationship between live birth and infant mortality in relation with occupations of the mothers is given in table-18. The frequency of live birth was higher among women who engaged in other occupations (100.00%). The frequency of live birth was more or less the same between women who are housewife (90.59%) and government employee (90.38%). In case of infant death, it was found only among women who are housewife (3.63%).

Table-18: Live birth and infant mortality in relation with occupation of Nepali women of Lingmoo village

Occupation	No. of mothers	No. of pregnancy	No. of live birth	Live birth rate	No. of infant death	Infant death rate
Housewife	221	638	578	90.59%	21	3.63%
Govt Employee	19	52	47	90.38%	0	0.00%
Others	11	28	28	100.00%	0	0.00%
Total	251	718	653	90.95%	21	3.21%

$$\chi^2=2.713;df=2;p>0.05$$

Figure 9: Live birth and infant mortality in relation with occupations among the Nepali women of Lingmoo village

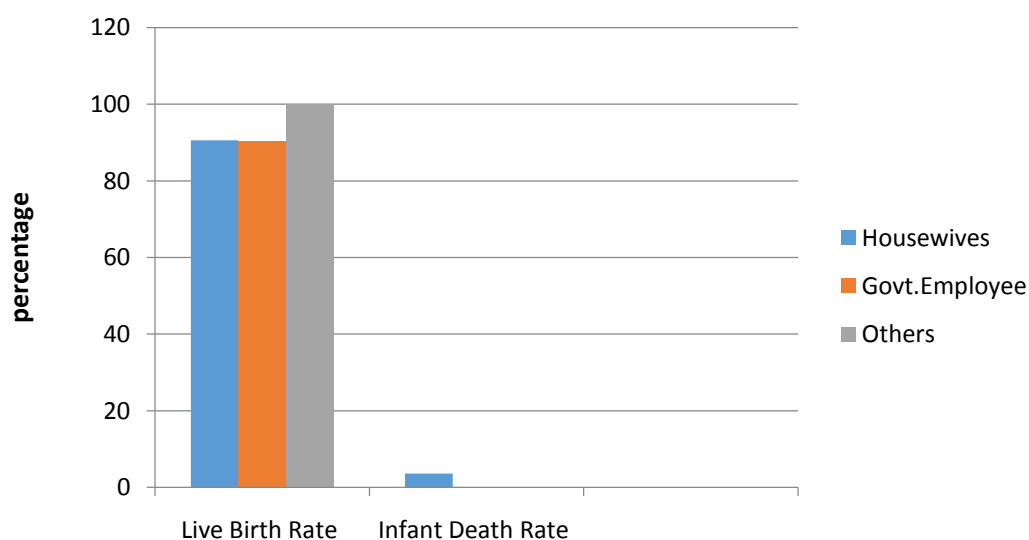


Table 19 shows the medical care of the children as per educational levels of the mothers. The frequency of health check up was higher among women who attained secondary education (96.00%). This was followed by women who attained primary education (95.58%) illiterate (94.64%) and higher secondary education (88.88%). The frequency of medical care of the children taken by mothers was higher among those who attained primary education (97.05%). This was followed by illiterate (96.42%), secondary education (96.00%) and higher secondary education (88.88%). The frequency of vaccination for children taken by mothers was higher among women

who attained secondary education (91.00%). This was followed by women who attained higher secondary education (88.88%), illiterate (78.57%) and primary education (72.05%). The frequency of polio drop given to the children was higher among those whose mother attained secondary education (91.00%). This was followed those who attained higher secondary education (88.88%), illiterate (78.57%) and primary education (72.05%). Out of 251 women, the frequency of mothers who took their children for health check up, medical care, vaccination and polio drop was 94.82 percent, 96.01 percent, 92.03 percent and 92.03 percent respectively.

Table-19: Medical care of the children in relation with educational levels of the mothers

Education level	No. of mother	Health check-up	Medical care	Vaccination	Polio drop
Illiterate	56	53(94.64%)	54(96.42%)	50(78.57%)	50(78.57%)
Primary	68	65(95.58%)	66(97.05%)	65(72.05%)	65(72.05%)
Secondary	100	96(96.00)	96(96.00%)	91(91.00%)	91(91.00%)
High Sec.+	27	24(88.88%)	25(88.88%)	25(88.88%)	25(88.88%)
Total	251	238(94.82%)	241(96.01%)	231(92.03%)	231(92.03%)

$$\chi^2=0.229; df=9;p>0.05$$

Figure 10: Medical care of the children in relation with educational levels of the mothers of Lingmoo village

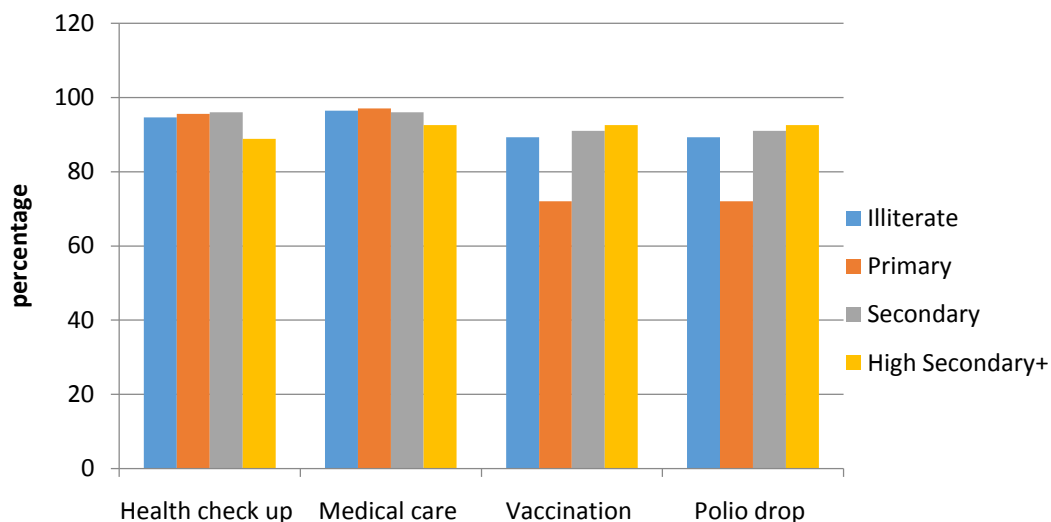


Table 20 shows the medical care of the children as per income levels of the family. The frequency of health check up was higher among women who belong to higher income family (96.97%). This was followed by women who belong to low income (94.96%) and middle income family (92.42%). The frequency of medical care of the children taken by mothers was higher among those who belongs to higher income (98.48%) followed by middle income (96.97%) and low income family (94.12%). Similarly, the frequency of vaccination was higher among women belongs to higher income group (98.48%). The frequency of vaccination of children taken by women belongs to middle income and low income family was 92.42 percent and 88.23 percent respectively. Table further shows that the frequency of polio drop given to the children was higher among mother belongs to higher income (98.48%) followed by middle income (92.42%) and low income family (88.23%).

Table -20: Medical care of the children in relation with income level of women of Lingmoo village

Income	No. of mothers	Health check-up	Medical care	Vaccination	Polio drop
Low	119	113(94.96%)	112(94.12%)	105(88.23%)	105(88.23%)
Middle	66	61(92.42%)	64(96.97%)	61(92.42%)	61(92.42%)
High	66	64(96.97%)	65(98.48%)	65(98.48%)	65(98.48%)
Total	251	238(94.82%)	241(96.01%)	231(92.03%)	231(92.03%)

$$\chi^2 = 0.567; df=6; p>0.05$$

Figure 11: Medical care of the children in relation with income level of the mothers of Lingmoo village

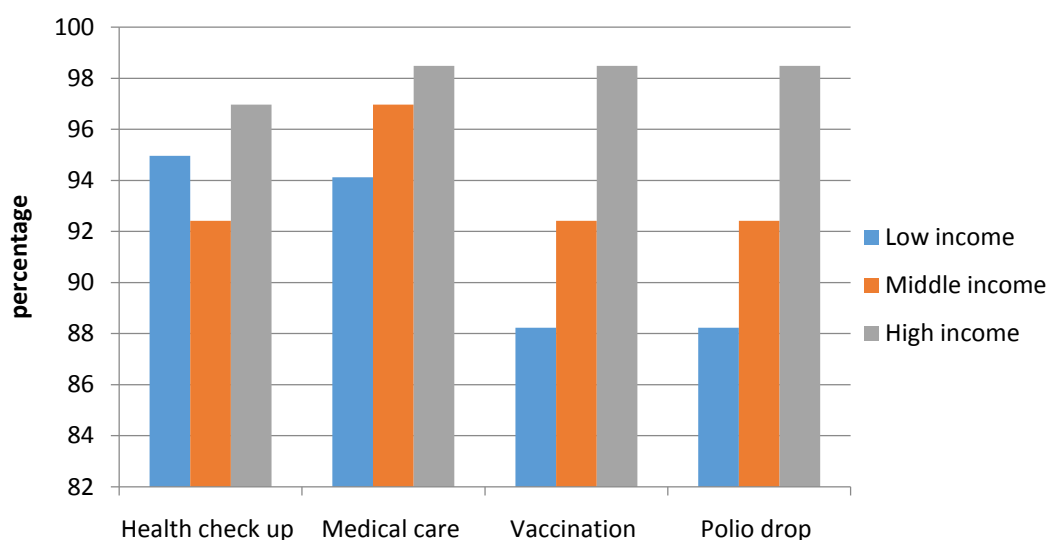


Table 21 shows the medical care of the children in relation with types of occupations. The frequency of health check up was found the same among government employees (100.00%) and women involve in other occupations (100.00%). The frequency of health of children whose mothers are housewife was 94.11 percent. Similarly, the frequency of medical care of the children taken by mothers was found the same between government employees (100.00%) and other occupations (100.00%). Among housewife, the frequency was 95.47 percent. The frequency of vaccination was higher among women who are government employees (100.00%). The frequencies of

vaccination of children taken by women are housewife and other occupations were 91.40 percent and 90.90 percent respectively. The frequency of polio drop given to the children was found the same among government employees (100.00%) and other occupations (100.00%). The frequency of polio drop among children whose mothers are housewife was 90.95 percent.

Table-21: Medical care of the children in relation with occupation of mothers of Lingmoo village

Income	No. of mothers	Health check-up	Medical care	Vaccination	Polio drop
Housewife	221	208(94.11%)	211(95.47%)	202(91.40%)	201(90.95%)
Govt Employee	19	19(100.00%)	19(100.00%)	19(100.00%)	19(100.00%)
Others	11	11(100.00%)	11(100.00%)	10(90.90%)	11(100.00%)
Total	251	238(94.82%)	241(96.01%)	231(92.03%)	231(92.03%)

$$\chi^2 = 6.828; df=6; p>0.05$$

Figure 12: Medical care of the children in relation with occupations of the mothers of Lingmoo village

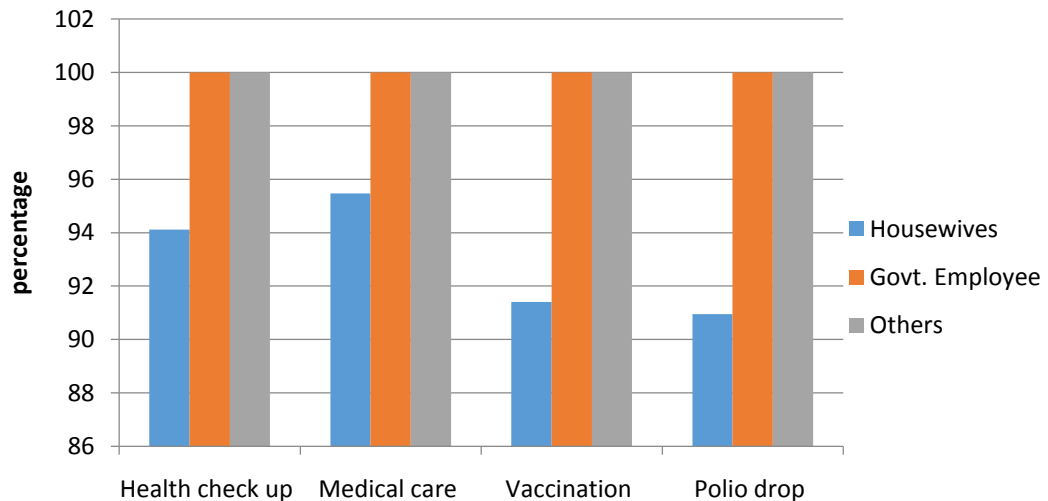


Table 22 shows the overall health of the children as per educational levels of the mothers. The overall good health of the children was higher among mothers who studied up to higher secondary and above (85.18%). This was followed by mothers

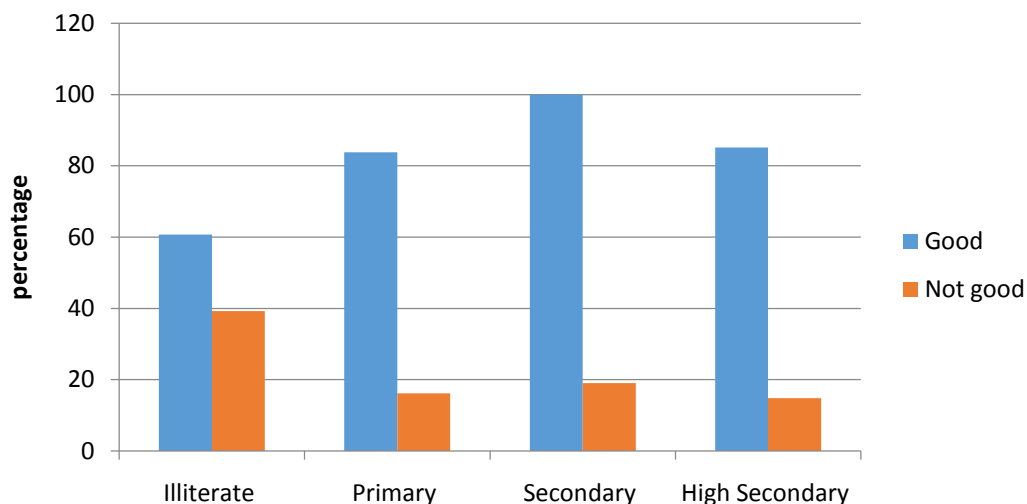
who attained primary education (83.82%), secondary (81.00%) and illiterate (60.71%). Out of 251 women, the frequency of mothers whose children have overall good health was 77.78 percent. The differences in the overall health of the children in different educational levels of mothers are statistically significant ( $\chi^2 = 7.998$ ;  $df=3$ ;  $p<0.05$ ).

Table -22: The overall health of the children in relation with educational levels of the mothers of Lingmoo village

Education level	No. of mothers	Overall health	
		Good	Not Good
Illiterate	56	34 (60.71%)	22(39.29%)
Primary	68	57(83.82%)	11(16.18%)
Secondary	100	81(81.00%)	19(19.00%)
High Secondary +	27	23(85.18%)	4(14.82%)
Total	251	195(77.68%)	56(22.31%)

$$\chi^2 = 7.998; df=3; p<0.05$$

Figure 13: Overall health of the children in relation with educational levels of the mothers in Lingmoo village



The overall health of the children as per the income levels of the mothers is given in table 23. The overall good health of the children was higher among mothers belongs to higher income group (89.39%) followed by low income group (73.94%) and middle income group (72.72%). The differences in the overall health of the children in different income levels are statistically significant ( $\chi^2 = 7.114$ ;  $df=2$ ;  $p < 0.05$ ).

Table -23: The overall health of the children in relation with income level of mothers of Lingmoo village

Income level	No. of mothers	Overall health	
		Good	Not Good
Low	119	88(73.94%)	31(46.96%)
Middle	66	48(72.72%)	18(27.28%)
High	66	59(89.39%)	7(10.61%)
Total	251	195(77.68%)	56(22.31%)

$$\chi^2 = 7.114; df=2; p < 0.05$$



Figure 14: Overall health of the children in relation with income level of the mothers of Lingmoo village

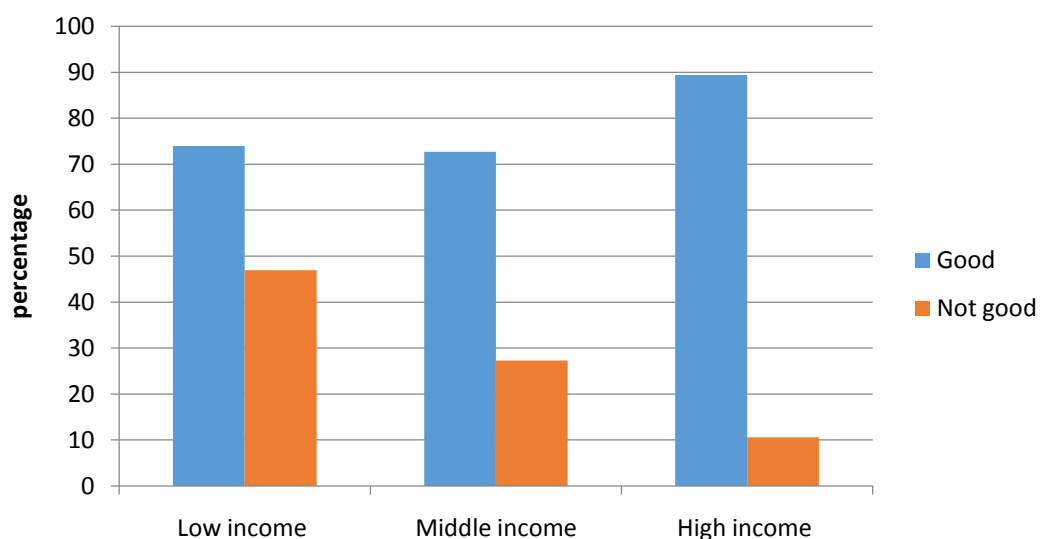


Table 24 shows the overall health of the children as per occupational levels of the mothers. The frequency of overall good health of the children was found the same between mothers who are government employees (100.00%) and other occupations (100.00%). The frequency of overall good health of the children whose mothers are housewife was 74.66 percent. The differences in the overall health of the children in different occupational levels of mothers are statistically significant ( $\chi^2 = 9.784$ ;  $df=2$ ;  $p<0.05$ ).

Table-24: The overall health of the children in relation occupation of mothers of Lingmoo village

Occupation	No. of mothers	Overall Health	
		Good	Not Good
Housewife	221	165(74.66%)	56(25.33%)
Govt Employee	19	19(100.00%)	0(0.00%)
Others	11	11(100.00%)	0(0.00%)
Total	251	195(77.68%)	56(22.31%)

$\chi^2 = 9.784$ ;  $df=2$ ;  $p<0.05$

Figure 15: Overall health of the children in relation with occupations of the mothers of Lingmoo village

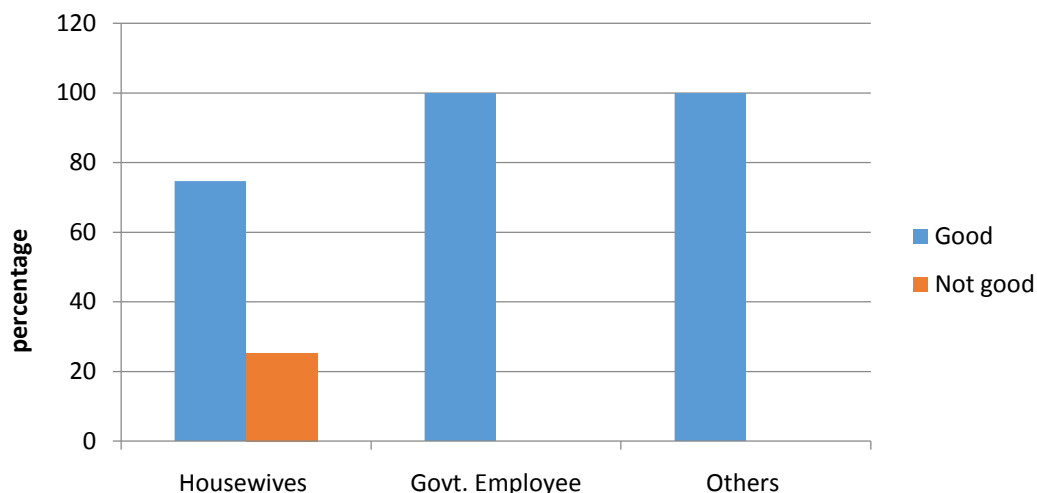


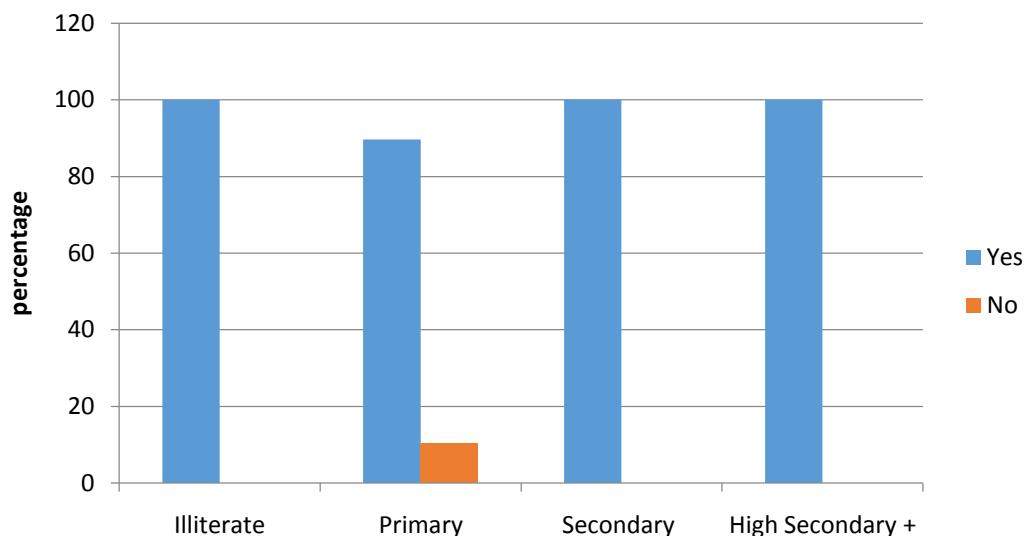
Table 25 shows the relationship between the supports of government’s two child plans and educational level of mothers. The frequency of supports for government’s two child plans was found the same among mothers who are illiterate (100.00%), secondary education (100.00%) and higher secondary education (100.00%). Among primary educated mothers, the frequency was 89.70 percent. Out of 251 women, the frequency of mothers who support government’s two child plans was 97.21 percent. The differences in support for government’s two child plan in different educational levels of mothers are statistically significant ( $\chi^2=19.378;df=3;p<0.05$ ).

Table-25: Support for government’s two child plan as per the different educational level among Nepali women in Lingmoo village

Educational level	No. of mothers	Yes	No
Illiterate	56	56 (100.00%)	(0.00%)
Primary	68	61(89.70%)	7(10.29%)
Secondary	100	100(100.00%)	(0.00%)
High Sec+	27	27(100.00%)	0(0.00%)
Total	251	244(97.21%)	7(2.78%)

$\chi^2=19.378;df=3;p<0.05$

Figure 16: Support for government's two child plan as per the different educational status among Nepali women in Lingmoo village



The different income levels of mothers and their support towards the two child policy of the government is given in table 26. The frequency of mothers who support government's two child plans was higher among high income group (98.48%) followed by middle income group (96.96%) and low income group (96.63 %).

Table -27: Support for government's two child plan as per the different income levels among Nepali women in Lingmoo village

Income group	No of Mothers	Yes	No
Low	119	115(96.63%)	4 (3.36%)
Middle	66	64 (96.96%)	2 (3.03%)
High	66	65(98.48%)	1 (1.51%)
Total	251	244 (97.21%)	7 (2.78%)

$$\chi^2=0.845;df=2;p>0.05$$

Figure 17: Support government for two child plan as per the different income levels among Nepali women in Lingmoo village

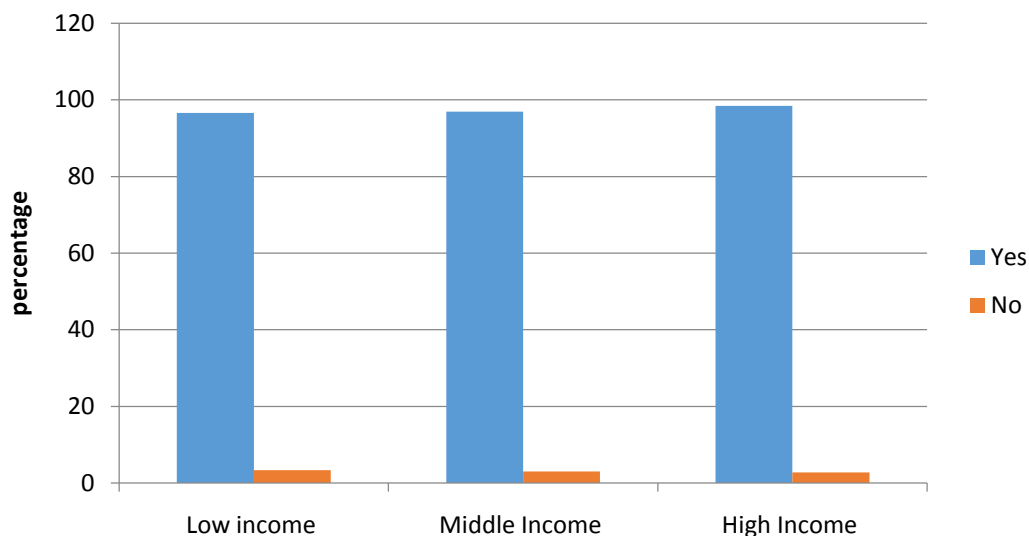


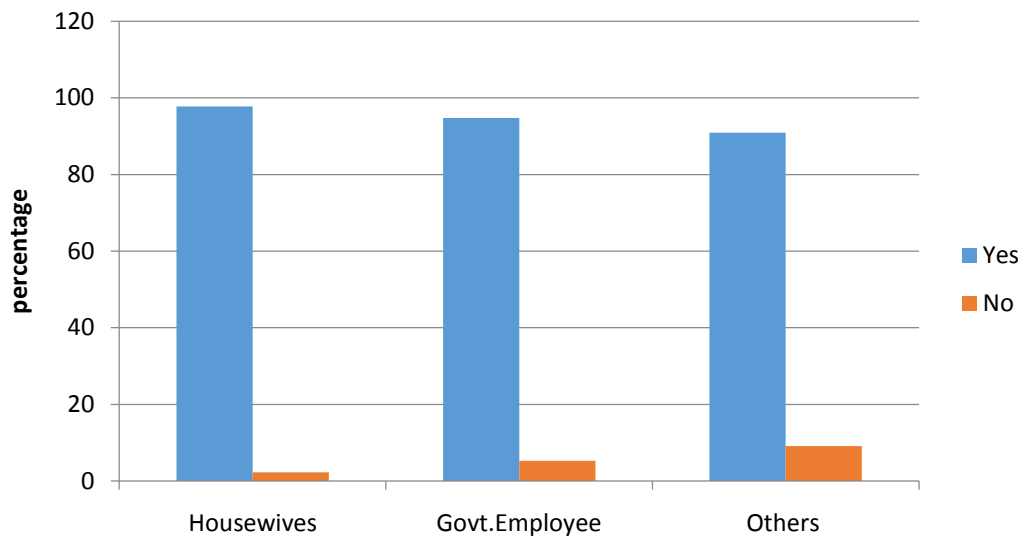
Table 26 shows the occupational levels of mothers and their support towards the two child policy of the government. The housewife (97.73%) shows the higher frequency of supporting government two child policies. This was followed by mothers who are government employees (94.73%) and other occupations (90.90%).

Table-26: Support for government’s two child plan as per the different occupational levels among Nepali women in Lingmoo village

Occupational group	No of Mothers	Yes	No
Housewives	221	216 (97.73%)	5 (2.26%)
Govt Employee	19	18(94.73%)	1(5.26%)
Others	11	10(90.90%)	1 (9.09%)
Total	251	244 (97.21%)	7 (97.21%)

$$\chi^2=2.266;df=2;p>0.05$$

Figure 18: Support government for two child plan as per the different occupational levels among Nepali women in Lingmoo village



## **CHAPTER V**

### **DISCUSSION**

Reproductive health is a key feature of human development. Improved reproductive health outcomes lower fertility rates, improved pregnancy outcomes, and lower sexually-transmitted infections (STIs) have broader individual, family, and societal benefits, including a healthier and more productive work force; greater financial and other resources for each child in smaller families; and as a means for enabling young women to delay childbearing until they have achieved educational and other goals (Singh et al 2004). Many studies have established that poor reproductive health outcomes early pregnancies, unplanned pregnancies, excess fertility, poorly managed obstetric complications adversely affect the opportunities for poor women and their families to escape poverty (Green and Merrick 2005). The relationship between socio-economic status and sexual and reproductive health is well established in the public health field. Husband contribution to child care has been positively related with mother's ability to earn income (Ross et al 1990). Socio-economic disadvantage is both a cause and an outcome of poor sexual and reproductive health (WHO, 2010). Addai (2000) stated that women in higher socioeconomic groups tend to exhibit patterns of more frequent use of maternal health services than women in the lower socioeconomic groups.

Age at menarche is one of the most important parts in a women's reproductive health. In India women's mean age at menarche by geographic area, caste, and religion ranges from 12 years to 15 years (Chakravorty and Renuka 1970; Gondotra and Das 1982; Kumar 1988).

The present study dealt with the maternal health, awareness family planning measures, child's health and how it influence by socio economic factors. Education plays a vital role for the shape of individual life. Most of the women in the village have attained secondary education and primary education. The study also indicates high frequency of women who are illiterate. It has been only couple of decades that Nepali women had got chance to get educated. Nepali community had believes that girls are not allow to go to the school because it is not their place. They have to look after family and before puberty they had to get marry with elder husband. Most of the women in the study area are housewife even though few of them are government employees. Age at marriage of both the males and females has to do a lot with the reproductive health. Early the age at marriage, the greater the health risks for women. Girls who give birth before the age of 15 are five times more likely to die in child birth than women in their twenties (WHO 2006). Mean age at marriage of women are below twenty years of age. First births are especially significant because they signal the entry of women into the state of motherhood. This changes her status and influences of demographic, social, and economic phenomena that render the first birth interval an event that deserves careful study (WHO 2009).

Though most of the delivery was done at hospital, still high frequency of delivery was conducted at home in Lingmoo village. In all the cases of delivery, it was recorded mostly normal. The low frequency of abortion, miscarriage and still birth are found more or less the same. The study further indicates more or less the same infant and child mortality rate in the study population. During pregnancy, women need to give attention towards their daily diet. Beside the supplementary foods, women need to take various medicines like folic acids, vitamins, iron, calcium etc. Nepali women in the Lingmoo village are provided with supplementary foods and

medicines during the pregnancy. Pregnancy and childbirth are not in themselves diseases, but normal physiological and social processes that carry health risks and require health care (WHO 2009). Therefore, pregnant women need to supply proper supplementary foods and medicines for her health as well as her child. Mother milk is considered as the best food for the infant. Most of the mothers in the Lingmoo village feed their children with breast milk for more than years. Study further shows that higher frequency of mothers start feeding solid foods to their infants after six months from birth. Semi liquid food consist of cerelac, nestrum, rice paste with dal (pulses), boiled vegetables, soup, cow milk etc. North east Indian states shows very good practices of breast feeding with majority starting breastfeeding within one hour and majority exclusively feeding and supplementing at the right age at 6 to 9 months (Lalneizo and Reddy 2010). Infant feeding practices have significant effects on both mothers and children. Prolonged breastfeeding helps to extend period of postpartum infertility and hence on fertility levels and the length of birth intervals (WHO 2003). Higher frequency of mothers took their children for polio drops and immunization in the public health centre. Immunization not only benefits the individual child, but it also benefits the society as a whole by preventing the spread of disease to those who are not immunized (WHO 2003).

The family planning measures are studied in relation with educational, income and occupational levels among the Nepali women. Women who attained primary education and secondary education show the higher frequency of using family planning measures. Education is found to be the most important factor in changing the attitude of people towards family planning (Uddin et al 1995). The Nepali married women who are illiterate used pills as the only method for controlling birth. Higher frequency of women who attained primary education and secondary education also



used pills for controlling birth. Women who have attained higher secondary education and above use both pills as well as other methods as means of family planning. Overall, the frequency of married women who used family planning measures is low. Among those who used family planning measures, most of them preferred to use pills as means of family planning measures in the Lingmoo village. Women in the study area mentioned unavailability of contraceptives, absence of client preferred methods in facilities, religious pressure, service provider incompetence and side effects of contraceptives such as heart burn, excessive menstrual bleeding and optimum work load as barriers to use family planning methods. Similar reasons of unmet need for contraception were also documented by other studies done elsewhere (Baongaarts and Bruce 1995). Implementation of family planning measures among women who belonged from middle income group recorded higher percentage. This is followed by high income and low income family. Now a day, women are much aware about their children's future and they had believed the concept of small family healthy family.

Studies revealed a pattern of relationship between educational status and maternal health service including family planning utilization (Beekle and McCabe 2006; Fantahun 2006; Babola and Fatusia 2009). In various educational levels, the frequency of miscarriage is found more or less the same in different educational levels with slightly higher among the higher secondary and above level of education. The frequency of abortion is higher among primary educated women followed by illiterate in the Lingmoo village. Whereas, in the cases of still birth is higher among married Nepali women who have attained higher secondary education and above. The overall frequency of miscarriage, abortion and still birth among the married women is more or less the same with slightly higher frequency of still birth. The higher frequency of miscarriage is found among married women belong to middle income group followed

by low income group. The frequency of abortion rate is more or less the same among women of different income levels. Similarly, the study further shows that the rate of still birth is more or less the same in all the educational levels with slight higher in middle income group. The frequency of miscarriage is higher among housewife. Whereas, the frequency of abortion and still is higher among government employees in the present study. Abortions are known to pose major risks in terms of maternal health (Radkar and Parasuraman 2007).

The frequency of live birth and infant mortality rate are studied in relation with various educational, income and occupational groups among married women in Lingmoo village. North Sikkim has the highest crude death rate and infant mortality rate of 60 per thousand live births compared to the state average of 51 and the crude death rate is 9.94 (per thousand) compared to the state (Lahiri et al. 2001). The higher frequency of live birth is found among women who attained secondary education. Infant mortality rate is slightly higher among married women who are illiterate. Study further indicates that there is decreased in infant mortality rate with increasing the educational level of the women. Overall infant mortality rate is low among Lingmoo women (3.21%) as compared to different population like Khasi (4.2%), Goro (5.2%), Mizo (3.45%) and Dhur Gonds (5.92%) (Adak 2001; Chandraker et al. 2009). The infant mortality rate and under-five mortality rate have been used as measures of children's well being (Laneizo and Reddy 2010). The risk of death for children less than five years increases if the mother dies. It has become clear that women residing in rural areas, belonging to backward castes and having a low standard of living are the most vulnerable in terms of maternal mortality (Radkar and Parasuraman 2007). The rate of live birth was decrease with increasing the income level of the mothers. The infant mortality rate shows fluctuation in different income levels. It shows higher

rate among the mothers belong to middle income family. In case of occupational levels, the higher rate of infant mortality is found among mothers who are housewife. Women in the higher income group were more aware of all basic facilities like good education, health care, nutrition and so on. Further, the changing economic value and the rising cost of children in urban life and the desire of parents to promote better health and education for their children prompted fertility decline in developed countries, and this could be expected to soon reduce fertility in developing countries as well (Dreze 2001). Mother education and socio-economic condition give a huge contribution to fertility and mortality rate of the children. So many factors are responsible behind it. Firstly, at the general level, it is useful to distinguish between the influences of the female education on desired family size, the relationship between planned numbers of births. Secondly, educated women are likely to be less dependent on their sons as sources of social status and old age security and this too may lead to the education in family size. Thirdly, in relationship between maternal education and children mortality, educated women are likely to be more knowledgeable about nutrition, hygienic and health of the children (Marthi et al. 1995). Indeed, female education plays a key role in the social development approach (Dreze 2001). Recent mothers are educated and much aware about various facts that husband assumption of child care responsibility may be significantly related to mothers stress (Ross and Mirowaski 1988).

Children in the developing world continue to face an on slaughter of disease and death from largely preventable factors (The World Bank 2008). Infancy and child care is one of the important factors for a healthy living after birth. It is necessary to provide children with proper medical care, health check up, regular polio drop and vaccination. The children are always more dependable to their mothers, for this reason

mother need to be healthy. In the present study some mothers were unhealthy, they were suffer in many weakness like some they have depression, mentally disorders, tuberculosis, jaundice etc. In Sikkim tuberculosis kills more adults between the ages of 15 and 59 than any other single infectious agent. Tuberculosis is best prevented by curing infectious persons early in the course of the disease, thus interrupting transmission to others (Lahiri et al. 2001). Additionally, community health awareness that focuses on women's health can potentially be expanded to include mental health awareness, which can lead to progress in decreasing the stigma that is associated with mental health (Ola et al. 2011). Health check up children is more or less the same among married women who are illiterate, primary education and secondary education. Similarly, the medical care for children is also more or less the same among women who are illiterate, primary education and secondary education. Vaccination and polio drop for children is higher among mothers who attained secondary level of education. The overall health check up, medical care, vaccination and polio drops for children taken by mothers are high in the studied population. In the various income groups, the high frequency of health check up and medical care, vaccination and polio drop of the children are higher among mothers belong to higher income group. In different occupational groups, mothers who are government employees and other occupations shows higher frequency of health check up, medical care, vaccination and polio drop for their children. Housewives mothers are quite often busy with their daily household chores. And some of them are engaged in the seasonal irrigation work. This could be the reason why housewives mothers could not get enough time to take their children to health centre.

The overall health of the mothers in the present study increases with increasing the educational level. Similarly, the overall health of the mothers is better among those

who belong to higher income family. Government employees and women who are engaged in other occupations show better overall health of the women. Better socioeconomic conditions can provide better nutrition, medical facility as well as more awareness for health and hygiene. Higher educated married Nepali women of Lingmoo village support Government two child policies. Women belong to higher income family support more to the Government policy for two children. In case of occupational groups, housewife shows more support to Government two child policies followed by government employees.

## **CHAPTER VI**

### **CONCLUSION**

The past decade has witnessed a significant shift in the way population and reproductive health problems are conceptualized. There has been a clearly articulation and definition of reproductive health as a concept as well as some thinking on ways in which reproductive health problems should be addressed (Pachauri 1998). The present study conducted on reproductive health status of married women among Nepali community in Lingmoo village, South Sikkim. Data were collected among the various aspects of women on maternal and child health, awareness towards family planning measures and socio-economic aspect of the married women. The women of Lingmoo village are very much concern about their health, cleanliness, hygiene surrounding. While interviewing, some women said that they want good health than the any kinds of prestige. Maximums numbers of women in the study area are housewife. Some women are highly educated and working in various college, school, bank, hospital and NGOs. Age at marriage and age at first child birth is low. Women in India give birth to their first child at a relatively young age (Dommaraju 2009). Study also found that most of the houses are pakka and few percent of houses are kaccha. Most of the family were nuclear type. Total number of conception had also varied from individual to individual. Younger generation or young parents have few numbers of child and vice verse. Numbers of infant mortality were also less which means they are aware about their child's health. Most of them delivered their child at hospital and some of them delivered at home too. Abortion, still birth and miscarriage were also found very less in the study area. The educational status was a very important factor in the use family planning measures. The maximum women who used family planning measures

are from primary and secondary levels of education. For employed mothers, the number of children was significantly related to mothers' stress even though these mothers on average had the smallest number of children. The government programmes in the Aganwadi centre were of greater help for spread of knowledge regarding the reproductive rights, family planning being one of them. Only few women did have knowledge of family planning. The majority of women were comfortable with pills other than any kind of contraceptive methods. The reproductive wastage was not much higher among them in different educational, occupational and income group of the women. The frequency of infant mortality rate was more or less same in all the educational levels of the mothers. In the different income group, the slightly higher frequency of infant mortality had seen among the low and middle income group category. Medical care including daily health check up, vaccination, polio drop and proper medical care are provided to the children of most of the mothers. Overall health of children were found as good but fewer percentage of children had mentally retardation and physically weak. The Nepali women had given first priority to her children and the rest daily activity. The results of this research revealed that socio-economic status, self-perceived health status, health behaviours, self-efficacy of health behaviours, and perception of family health-promoting behaviours are related to health-promoting lifestyles.

The studied women got special care during pregnancy and enough amount of vitamins and others supplements. Women got all the necessary items including special diet and medicines like folic acids, vitamins, iron, calcium tablets, etc during pregnancies. As per the rule all the women had given breast milk till six months to their babies and after six months they had feed them semi liquid food. The duration of breast feeding was more or less same among majority of the women. Most of women

had taken their child for immunization and polio drop. In most of Indian, Hindu culture had that believes son will be future security but such concept was absent in Lingmoo village.

Present study also suggest that in case of couple disturbances like domestic unrest, not only made an obstacle in the relationship between husband and wife, but also have negative influence the daily lives of their children. At the initial stage of life each child will get first lesson from their family. In addition, special attention draw towards the family member especially husband need to take care of his wife and children. Some married women are infected their health while using the family planning measures like using intrauterine device (IUD copper). They get infected with several illness like continuous bleeding, uterus fall down, back pain. The study also suggests the concept of pre-pregnancy counselling and contraception services need to clear from the local ASHA worker and any PHC staffs.

In conclusion In conclusion, the present study highlights the reproductive health of the Nepali women of Lingmoo village, South Sikkim. The overall maternal and child birth is good among the Nepali women. The reason of this might be the education and awareness towards the health status of women. Another reason could be the healthy way of living which results less health risk among women. Beside that people of the Linmgoo village used to follow modern concept of health care system than traditional one for any kind of ailments. They even said that the traditional concept will also do care but which requires lots of patient and continues treatment.



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