Antenatal and Postnatal Health Care Seeking Behavior of Indigenous Women: A Study of the Patro Community in Sylhet

(This thesis is submitted for the partial fulfillment of the requirement for the degree of Master of Population, Reproductive Health, Gender and Development at East West University, Dhaka, Bangladesh).

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Declaration

I do hereby declare that this graduate thesis work reported here, has been performed by me to submit it to the Department of Social Relations, East West University, Dhaka as a requirement of the partial fulfillment for the degree of Master of Population, Reproductive Health, Gender and Development. This paper has neither been submitted nor accepted elsewhere for any purpose. I would like to bear responsibility of all errors, mistakes and lack of judgments that I have committed unintentionally.

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Dedication

This thesis is dedicated to my parents.

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LIST OF ACRONYMS

Acronyms

ANC	Antenatal Care
ADB	Asian Development Bank
APF	Asia Pacific Forum
BDHS	Bangladesh Demographic and Health Survey
BMMS	Bangladesh Maternal Mortality & Health Care Survey
BMI	Body Mass Index
CAMPE	Campaign for Popular Education
CSBA	Community Skilled Birth Attendant
CHT	Chittagong Hill Tracts
EPI	Expanded Program of Immunization
EOC	Emergency Obstetric Care
ESP	Essential Service Package
ECDO	Ethnic Community Development Organization
FWV	Family Welfare Visitor
GO	Government Organization
GOB	Government of Bangladesh
HPSP	Health and Population Sector Program
HPNSP	Health, Population and Nutrition Sector Program
HPNSDP	Health, Population and Nutrition Sector Development Program
ICDDR,B,	International Centre for Diarrheal Disease Research, Bangladesh
ILO	International Labor Organization
ICPD	International Conference on Population and Development
MDGs	Millennium Development Goals

MA	Medical Assistant
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MOH&FW	Ministry of Health and Family Welfare
MPRHGD	Masters in Population, Reproductive Health, Gender & Development
NGO	Non-government Organization
NIPORT	National Institute of Population Research and Training
OHCHR	Office of the United Nations High Commissioner for Human Rights
OXFAM	Oxford committee for Famine relief.
PNC	Postnatal Care
PASKOP	PatroShomprodayKollayanPorishod
SACMO	Sub-assistant Community Medical Officer
SPSS	Statistical Package for Social Science
TBA	Traditional Birth Attendant
UHC	Upazila Health Complex
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
WHO	World Health Organization

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Abstract

The condition of maternal health of the indigenous people is worse poorer than non-indigenous people across the world, which is also true in the Bangladesh context as well as at local level. However, little research has been conducted among indigenous people in Bangladesh. Regarding maternal health the present study was conducted among the Patro indigenous people of Bangladesh to understand their maternal health care access and the factors associated with it. It was carried out in six villages of Sylhet district where most of the Patro people reside. The research, employed a mixed method approach that combined both qualitative and quantitative methods. A total of 108 married women who had at least one child less than three years of age or women who had at least one delivery experience were interviewed by using purposive and snowball sampling system. This data was then presented using uni-variate, bi-variate and multivariate analysis.In addition to this a comparative analysis of utilization ANC, PNC and delivery care at national, regional level and Patro community were also assessed.

The study revealed that, the socio economic condition of the Patro community is quite poor and the access to maternal health care services is likewise very inadequate. Both micro and macro level factors are responsible for their low access to health care services. The educational attainment of Patro women and their husband is lower than the regional and national level as well. Unlike national level most of the Patro man are day laborers.

Antenatal care coverage in Sylhet region in which the Patro community is located is scarce; it is even lower among the Patro community. The biosocial and economic factors associated with antenatal coverageare: age of the Patro women and number of living children, education of women, and occupation of their husbands. However, Patro women who do not visit health care center for ANC mentioned that it is expensive and situated far from where they live.

The common problems Patro women face during their pregnancy were headache, high blood pressure, palpitation, pre-eclampsia/edema, abdominal pain, excess vomiting tendency and physical weakness. Almost all deliveries took place in their home assisted by untrained tradition birth attendant (TBA). Regarding delivery complications Patro women faced excessive

hemorrhage, convulsion and prolonged labor. During their visit, Patro women received vaccination, supply of iron tablet, advice for breast feeding and nutrition education. Over all postnatal care visit is high among Patro women compared to regional and national level, but received postnatal checkup within two days after delivery was less frequent among them. The socio-economic factors associated with post natal care are: women's education and living children. Postnatal care visit increased with the level of education.

Patro community is economically very poor. They live in inaccessible remote and isolated area surrounded by hills and tea gardens. There were no maternal health service centers near where they live except for EPI center. Thus, the government should take collaborative initiation with GO and NGOs to establish maternal health centers to reduce maternal mortality and morbidity among Patro women.

Chapter one

1.1 Introduction

Women's health issues, particularly reproductive health, have attained higher international visibility and renewed political commitment in recent decades. While targeted policies and programs have enabled women to lead healthier lives, yet significant gender-based health disparities remain in many countries. With limited access to education or employment, high illiteracy rates and increasing poverty levels are making health improvements of women exceedingly difficult.

Women constitute about half of the total population of the world. Women's health is key to a better individual, family and community health that leads to individual, community and national development (Vijay Rattan, 2000). Slogan for better world, should be-"*Healthy Women, Healthy World*" (WHO, 2002).

United Nations has paid emphasis on improvement of maternal health and placed maternal health as number five of the 8 Millennium Development Goals (MDG), and targeting a reduction in the number of women dying during pregnancy and childbirth by three quarters in 2015, by increasing usage of skilled birth attendants, contraception and family planning. The current decline of maternal deaths is only half of what is necessary to achieve this goal, but despite this in several regions such as Sub-Saharan Africa the maternal mortality rate is actually increasing (UNDESA; 2009 MDGs Report; 2009)

The majority of deaths due to maternal causes can be avoided if pregnant women receive adequate antenatal care during pregnancy, have delivery in hygienic conditions with assistance of trained medical practitioners, and receive appropriate and timely postpartum care (WHO,1981).The infant mortality is largely affected by antenatal care. Children of mothers who received antenatal care had observed lower mortality than other children who did not receive any antenatal care (Munshi, 2000).

There are many reasons for maternal death in Bangladesh. Approximately two thirds of the maternal death is caused by direct obstetric (hemorrhage & eclampsia) complications, obstructed or prolonged labor (7%) and abortion (1%) are the other direct obstetric causes of deaths.

Indirect obstetric causes of deaths account for about a third (28%) of maternal deaths (NIPORT, 2012). Another reason of maternal death is malnutrition among women of reproductive age. The nutritional status of women in Bangladesh is highly alarming. The body mass index (BMI) of 52% women of reproductive age is less than 18.5, which is below the average (19.5). More than 50% of women have high prevalence of iron deficiency, anemia and vitamin A deficiency, which results in night blindness to 2.8% of women. Maternal malnutrition, anemia, infection during pregnancy and repeated pregnancies contributes to low birth weight babies and babies with low birth weight have higher risk of deaths than children with normal weight (UNICEF, 2009).

Thus antenatal care and post natal care are very important for pregnant women. World Health Organization (WHO) recommends that a pregnant woman should make at least four antenatal (ANC) visits during pregnancy but very few pregnant women have the access to this service. Bangladesh Demographic and Health Survey 2011 (NIPORT, 2012) shows that, only 68 percent women received antenatal care at least once from any provider and 55percent from medically trained provider and only 25.5 percent received antenatal care for 4 or more times (NIPORT, 2012). Bangladesh has strengthened its emergency obstetric care (EmOC) under the Directorate General of Health Services, through national and international collaborations. In 1993, the United Nations Population Fund (UNFPA) started supporting government initiatives to improve 64 maternal and child welfare centers for EmOC. In addition, the Obstetrical and Gynecological Society of Bangladesh with the support of UNICEF improved EmOC in 11 district hospitals on a pilot basis in 1994-1998, with a subsequent expansion to other districts. As a result, ANC and PNC visits increased substantially in Bangladesh from 1999-2000 to 2011. Despite improvements, pregnancy-related complications is still the leading cause of death and disability among women of childbearing age (NIPORT, 2012), disproportionately among different indigenous, non-indigenous and cultural groups.

Indigenous groups usually live in areas, which is often inaccessible. Worldwide Indigenous/ethnic people have lesser access to services provided by government or private sectors due to their distinct socio-cultural and language as well as to the type of physical environment they live in, which is in forests and hilly terrains (Nasiruddin and Hossienie, 2009). Indigenous/ethnic groups exist in many societies around the world. It is estimated that the total

indigenous peoples of Bangladesh is 1.3 million i.e. less than one percent of the total population of Bangladesh and there are about 45 different tribal groups across the country (MOHFP, 2011).

However, most of the research conducted to understand health care seeking behavior is focused on mainstream societies. Very little analysis has been carried out to understand health care seeking behavior of the indigenous or tribal society. This study aims to understand the antenatal and postnatal services offered by providers and subsequent care seeking behavior among Patro tribe, an indigenous community in Sylhet district in Bangladesh with a comparative analysis of Patro community with national level and regional level prevalence.

The Patro community is geographically situated in three upozillas of Sylhet district and six Union that comprises thirty two villages. However, there was no separate information in the successive censuses about Patro community living in this area. As such there were no separate data on Patro community. Few NGOs have started its operation in those areas, such as "Oxfam" and "Danida". These NGOs jointly conducted a Baseline Survey on Patro people in 2007. Present information on this community was extracted from the survey conducted by Oxfam-Danida and a local welfare organization named Patro *Shomproday Kollayan Porishod* (PASKOP) in 2007.

The purpose of this study is to examine the factors associated with ANC and PNC visits of the Patro community in Sylhet and identify determinants, so that policy-makers can initiate strategies for improving this aspect of community health.

1.2 Review of Literature

In this chapter some journals, research reports, documents, text books were reviewed to understand the situation of women health, antenatal and postnatal care problem and practice world wide as well as one indigenous community in Bangladesh.

Situation of women health estimated by WHO, UNICEF and UNFPA, citing a total of 287,000 maternal deaths occurred in 2010 globally. This is a decline of 47 percent from the levels in 1990. The lion share (85%) of these deaths were in Sub-Saharan Africa (56%) and Southern Asia (29%). which accounted for 85percent of the global burden (245,000 maternal deaths) in 2010. The MMR in developing regions (240) was 15 times higher than in developed regions. Sub-Saharan Africa had the highest MMR at 500 maternal deaths per 100,000 live births, while Eastern Asia had the lowest at 37 maternal deaths per 100,000 live births. The MMRs of the remaining MDG developing regions, in descending order of maternal deaths per 100,000 live births are Southern Asia (220), Oceania (200), South-eastern Asia (150), Latin America and the Caribbean (80), Northern Africa (78), Western Asia (71) and the Caucasus and Central Asia (46) (WHO, 2012).

Situation of maternal mortality in Bangladesh as part of South Asia is one of the worst. Historically, maternal mortality was as high as 574 per 100,000 live births in Bangladesh (Chen, et al. 1974; Ronsmans et al. 1997). Since 2001, maternal mortality in Bangladesh had a steady decline from its initial ratio 322 per 100,000 live births to 194 per 100,000 live births in 2009. This steady decline of maternal mortality ratio was largely (50%) due to the decline of direct obstetric death (hemorrhage and eclampsia) during pregnancy and delivery period of the reproductive women which occurred due to facility based delivery provided by national health and family planning program and private health care services (NIPORT,2003; NIPORT,2011).

The national health and family planning program since mid-seventy gradually developed maternal health strategy through its integrated health and family planning program emphasizes antenatal, postnatal care and visit to health centre four times during pregnancy that can contribute to effective and timely services during delivery and delivery complications. However, there was a major shift of the program from a project driven approach to a program approach for delivering health care services to the rural poor since 1998. The Ministry of Health and Family

Welfare (MoHFW), has worked out a detail work plan on Health and Population Sector Program (HPSP) to further boost up the health care program. Under this program the government has implemented Essential Service Package (ESP), which aims to maximize health benefits at a minimum cost, meet felt needs of the clients, strengthen service delivery capacity and improve management system. One priority of ESP, Government is to improve maternal and child health through interventions and the most important area treated was "Reproductive Health Care" which includes Safe Motherhood, Family Planning, Child Health Care, Unsafe Abortion, Antenatal and Postnatal Care, School Health Services, communicable disease control, Control of emerging and re-emerging diseases. Under the Reproductive Health Initiatives, Safe Motherhood was intended to reduce the maternal mortality and improve the overall reproductive health status for women; Bangladesh government has taken an extensive program. The major activities aimed at maternal health focus on awareness about and access to contraceptive methods; Antenatal care (Tetanus immunization, iron folic acid supplementation, assessment of pregnancy status, physical checkup including basic urine and blood test, blood pressure checkup and nutrition education), promotion of safe delivery practices by skilled birth attendants, Emergency Obstetric Care (EOC) and Post Natal Care (wide range of services related to education for mother on cleanliness, umbilical cord care, breast feeding, thermal control management of asphyxia, routine eye prophylaxis and special care of pre term and low birth weight babies, prevention and treatment of Acute Respiratory Infection). The focus was on increasing utilization of EOC services by addressing the "Three Delays and Five Danger Signs Model" (3 delays include: i) delays in recognizing problems and deciding to seek care, ii) delays in transportation to reach appropriate care center, iii) delays in receiving appropriate care at the health facility. 5 danger signs include : i) water breaks but labor doesn't start within 24 hours, ii) bleeding before the baby is born, iii) long labor, iv) baby lying sideway, v) pre-eclampsia) through increasing coverage and decentralizing EOC services together with mobilizing the communities. The vision is to create a socio-cultural momentum that reduces maternal mortality and morbidity as women's right in line with ICPD 1994. Rahman et al., 2003; HPSP Evaluation-2003)

However, analyzing the program performance, and health care utilization of the reproductive women, Rahman et al., (1993-94), in the early nineties found health care utilization was very inadequate and poor. For example, 41% of the rural women did not seek antenatal care during their last pregnancies. Among those who did, only 14% consulted qualified professionals, such

as doctors, nurses, and midwives. Almost all deliveries took place at homes, and most of these were conducted by untrained traditional birth attendants or relatives in the most unsafe way. He also found that the young, educated, and employed women are more likely to seek antenatal care than the older, uneducated, and unemployed women. Poor women are also less likely to seek antenatal care. Rashid, Khabir and Hyder, (2004), identified major problems of women's health care in Bangladesh are significantly affected by roles people play under given conditions.

Demographic and health surveys conducted since eighties documented rather a very poor antenatal and post natal care services of the reproductive women. Only recently that several Health and Demographic Surveys reported a slow rise of antenatal and post natal care services (NIPORT; 2005, 2009 and 2012). The BDHS-2011 report (NIPORT, 2012) shows that 68 % of the women with a birth in the last three years preceding the survey received antenatal care at least once from any provider. Fifty five percent received care from a medically trained provider, such as doctor, nurse, midwife, family welfare visitor (FWV), community skilled birth attendant (CSBA), medical assistant (MA), or sub-assistant community medical officer (SACMO). Comparable data from the BDHS-2004 (NIPORT, 2005) and BDHS-2007 (NIPORT, 2009) show that while antenatal care from any provider has increased by 17% over the past few years, from 58 % in 2004 to 68 % in 2011, antenatal care from a medically trained provider during the same period has increased by 7.84% only from 51% to 55%. BDHS-2011 (NIPORT, 2012) also shows that 29% of births in Bangladesh are delivered at a health facility, registering 20% increase since 2004.

The risk factors associated with these trends of receiving antenatal care services from a trained provider, or delivery at health facility, as revealed from BDHS-2011, are related to age, birth order, urban-rural residence and geographical location (NIPORT, 2011). For example, 57%of women who gave birth below age 20 received antenatal care from a trained provider but declined to 40% for women of 35 years or older at birth. The urban-rural differential in antenatal care coverage continues to be large: 74% of urban women received antenatal care from a trained provider, compared with only 49% of rural women. Data showing regional variation of receiving antenatal care, women in Khulna are most likely to receive antenatal care from a medically trained provider (65%), while those in Sylhet are least likely to receive care (47%). From the same source, delivery with health facility is considerably lower for women 35 years of age or

older compared to those who are younger and facility delivery decreases sharply as birth order increases. On the other hand, social and economic factors (education level and wealth status) seem to have positive relationship with the number of antenatal care visits of women and their likelihood of delivery in a health facility. For example, 11% of women with no education deliver in a health facility; the corresponding proportion of women with completed secondary education is 67 percent. Across divisions, Khulna has the highest proportion of births delivered at a health facility (46%), while Barisal and Sylhet have the lowest (22% and 21%, respectively). The proportion of delivery by medically trained providers (24 %) is relatively low in Sylhet division (NIPORT, 2012).

Postnatal care is an essential element of safe motherhood and post natal checkup is an opportunity to assess and treat delivery complications and provides guidance to mothers on how to care for themselves and their newborn infant. A large proportion of maternal and neonatal deaths occur during the 24 hours following delivery. In addition, the first two days following delivery are critical for monitoring complications for both mothers and the newborns. The BDHS-2011 (NIPORT, 2012) data show that 29 percent of mothers in Bangladesh receive postnatal care from a medically trained provider within 42 days after delivery. Of them 27 percent receive postnatal care within the crucial first two days of delivery. Postnatal checkups are slightly more common for children (34%) than mothers (29%). The likelihood of receiving a postnatal checkup from a medically trained provider within 2 days of delivery has increased from 20 percent in 2007 to 27 percent in 2011 for mothers and from 20 percent to 30 percent for children. The Health, Population, and Nutrition Sector Development Program (HPNSDP) 2011-2016 sets a target of 50 percent of women receiving at least one postnatal visit by a medically trained provider within 48 hours of birth by 2016.

Review of the existing literature reveals the situation of antenatal, post natal and delivery care and their determinants. At different stages, Government has adopted different strategies to expand and extend antenatal, post natal and delivery care during pregnancy, results of which are demonstrated in the researches and national surveys. Studies clearly indicate the socio-economic, cultural, regional and programmatic differentials despite certain rise of the utilization of antenatal, post natal and delivery care overtime in the country. The factors that are positively associated with these three reproductive cares are: education and wealth status of women and the

factors that are negatively associated with the age of women and birth order. The other two factors that have challenged the maternal and child health goal set up through HPNSP are urban rural residence and regional differences. The regional differences in terms of this health care of women are enormously evident in the literature. The eastern region, i.e. Sylhet division, is an inaccessible area which has higher maternal mortality, lower utilization of antenatal, post natal and delivery care than other regions. The rural people especially, indigenous community may have worse situation.

Historically, an indigenous person all over the world are subjugated and discriminated, which explicitly and implicitly affects their health status (UN, APF, and OHCHR. 2013). Studies reveal that indigenous/ethnic population experience more health related problems and more inequality than mainstream population (Ahmed, 2001; Fiscella, 2004; Hansen et al., 2008; Harris et al., 2006; Williams et al., 2003). In particular, indigenous people or ethnic minorities are adversely affected by reproductive health problems where maternal mortality and infant mortality rates are concerned. For instance, only a small percentage (4%) of all maternal deaths occurred in Latin America and the Caribbean, but these deaths disproportionately occurred among indigenous peoples (Health in The Americas, 2007). However, there were few studies dealing with the health situation of indigenous community more specifically on reproductive health status of the indigenous women (Islam et al., 2009).

A thesis analyzing the health situation of Raute Community in Nepal, Manisha (2011) has identified the reason behind the Raute women not getting modern health facility. The first and foremost reason for not accessing modern maternal health care is the rejection of Raute people to utilize any kind of things which connect them with the outer world, i.e. cultural reason. The next reason was the inability of Government of Nepal to deliver such services that ILO convention and UN Declaration has mandated. Both ILO Convention No. 169 Indigenous and Tribal Peoples Convention and the UN Declaration on the Rights of Indigenous Peoples of 2007 (article 24) address indigenous peoples' rights within health services.

Analyzing indigenous communities in Bangladesh, several factors have been identified that influence health care seeking behavior of women of these communities. Poor socioeconomic status of women, lack of physical accessibility, cultural beliefs and perceptions, low literacy level of mothers and large family size are those prime factors. The situation of indigenous people

of Chittagong Hill Tracts (CHT), particularly in the Bandarban area may be considered as marginalized in terms of poverty, literacy, livelihood, childhood immunization, contraception , pregnancy and professional delivery care; and access to static (institutionalized) government health facilities compared to plain land areas (Ahmed Masud and others, 2001; 2003).

However, a different situation has been depicted in a study on Garo community. A study by Islam and others 2009 reported higher rate of antenatal and post natal care among Garo community. Analyzing further the same study reported that more than seventy percent of the surveyed Garo women between 25-35 years of age, had 88.8% literacy rate and most of the Garo women were aware of antenatal and postnatal care services offered in the nearby health centers. Respondents mentioned that vaccination of children, nursing of babies, nursing of pregnant mothers and vaccination of pregnant mothers are the main care services offered in the health centers. Also, there is a marked difference in the use of postnatal care between the Garo and Bangladeshi women. This may be due to the high literacy rate among Garo women in the study area. It may also be attributed to the availability of different private health service centers along with Christian missionary hospitals, playing pivotal role in the provision of better health care services for Garo women than for non Garo Bangladeshi women. More importantly, the high status of women in Garo society, being matrilineal, may also contribute to the care seeking behavior wherever services are available. (Islam M. Amirul et al., 2008).

Study of indigenous community and their health care utilization in Sylhet region especially the Patro community is inadequate. Since the British rule, most of the literature available on indigenous communities has focused on the socio-economic, cultural and political issues of these communities.

Hence the present study may be considered pioneering in this respect of exploring about the antenatal and postnatal care seeking behavior of Sylhet region as well as the Patro women and the issues regarding maternal health care situation to help the policy makers and development actors to take proper initiative to improve maternal health care of the region as well as Patro women.

1.3 Rationale of the Study

Regional difference of the utilization of reproductive health care services is very much apparent in the literature. Sylhet division has the higher underutilization of reproductive health care services and the situation of Patro as indigenous community in the region may be even worse. The United Nations General Assembly has formed a permanent forum on ethnic issues, the year of 1993 was declared and observed as the international year of the World's ethnic peoples as well as declaring 1995 to 2004 as the international decade of the world's ethnic peoples. In Bangladesh there is very little authentic information regarding ethnic issues. Patro is one such ethnic community in Bangladesh lives in Sylhet region. This study will enrich the knowledge of maternal health care practice of the ethnic community, particularly the Patro people in Bangladesh.

Women of Patro indigenous community have been remained more or less a vulnerable section of our society. Research on this community is rare. Present thesis will explore the antenatal and postnatal care utilization in Sylhet as well as the Patro community and help the policy makers and development actors to take proper initiative to improve maternal health care practice of Patro women.

1.4 Objectives of the Study and Research Questions.

The general objective of the research is to assess the reproductive health care situation, particularly antenatal, postnatal and delivery care of Patro women compared to national and regional women, particularly Sylhet division.

The specific objectives of the study are:

i) To determine the level of access of antenatal and postnatal services in the study community.

ii) To identify socio-economic and programmatic factors affecting not using of health service centers during pregnancy, delivery and after delivery.

iii) To assess the problems and complications Patro women face compared to national and regional women during pregnancy, delivery and after delivery and factors which explain these differences.

iv) To solicit suggestions and recommendations of Patro women to improve their reproductive health.

v) To assess the socio-economic and maternal health care differences between national, regional (Sylhet) and Patro community in Sylhet.

Chapter Two

Background of the Study Population

2.1 Introduction

Changes in reproductive health behavior largely depend on the social cultural features and the economic development of a society and their complex relationships. None of the countries from historical Europe to today's Third World began demographic transition from any single, unanimously agreed point of socio-economic development. Thus, in order to fully understand the reproductive health behavior of a particular society, it is important to understand the country's setting, past history, cultural heritage and/or the various economic and social dynamics, development stages and the complex relationship of these factors that make up society. Therefore, the present chapter will discuss the social, economic, cultural and health related factors in Sylhet, and in particular Patro community of Bangladesh. Each of these factors has an important impact on reproductive health behavior and its change in this particular society.

2.2 The Sylhet Division

Sylhet division is located in the North-East region of Bangladesh with an area of about 12,596 sq. km. and the division has a population of 9 million, the majority being Muslims followed by Hindus. Indigenous people represent just 1.5% of the total Population of Sylhet. It has 8.5% of the total land area and 6.4% of the total population of Bangladesh. The district is more of a rural composition compared to other regions with twelve percent urban population compared to overall twenty three percent urban populations in the country (CAMPE, 2011). Distinct from other areas of the country, Sylhet is characterized by its diversity in social, economic and geographical outlines. Geologically, the region is complex with diverse geomorphology; high topography of Plio-Miocene age such as Khasi and Jaintia hills and small hillocks along the border. At the centre, there is a vast low lying flood plain, locally called Haors, of the total land, plain land covers 57.5%, haor 30.2% and tea estates/forest/hilly areas 12.5%. The district is surrounded by some Indian border area named Jaintia, Khasi and Tripura and inherited a vast

historical and cultural background and diversified inhabitants of Garo, Khasia. Monipuri and Hazong and other small tribal and indigenous community. Patro is one of them.

Sylhet is more prosperous and rich in terms of natural resources and general economic condition of the population but has worst social outcomes. It has low poverty (33.8%) (CAMPE, 2011) but has lowest human development index. In terms of health indicators it has the highest under-five mortality and fertility rates, and lowest rates of immunization (CAMPE, 2011). In Sylhet, the net enrolment rate is 80.5% at primary level and 64.2% at secondary level. Both the figures are much lower than the national averages of 86.4% and 77.7% respectively. Similarly, in terms of ever schooled population and the rate of primary and secondary education, Sylhet division lags much behind the national average as well as other parts of the country (CAMPE, 2011). Sylhet is a worse performer in terms of literacy rate too. The literacy rate for 7+ populations is 40.7% and for adult population it is 44.4 percent. These rates are 48.5% and 52.1% respectively for Bangladesh as a whole. (CAMPE, 2011).

2.3 Profile of Patro Community

2.3.1 Ethnic Origin and Settlement in Sylhet

There is no official and institutionalized record about their origin and how the Patro people first settled in Sylhet. The history is completely vague and unclear. However, there are a few traditional stories and myth regarding the background and settlement of this community. There are a few publications like *Srihotter Etibritto*, *Hazrat Shahjalal* and *Sylheter Etihas* in which the history of the Sylhet was discussed elaborately but all of those are written based on the fairy tales. (Ghani, 2006 and Miah, 2008). These publications overlooked the history of ethnic people specially the Patros of Sylhet. Some of the writers only identified them as Pator, Patro or Pathor without having any description. R.M. Nath (1948) mentioned about them and grants them a royal descent, speaks of the 'royal' pathor-chutia clan, who has migrated from kamrup into the Surma valley Risely (1872), has recognized them just as Pathor. So far the available historical findings are concerned; it is evident that before fourteenth century Patro community lived in Sylhet region extensively. The Patro people consider themselves as the descendants of Raja Gour Gubindo, the

Hindu king of Gour in Sylhet. When Gour Gubindo was defeated by Hazrat Shahjalal (R.), he lost the right to live in the capital Gour and Patros left the place with him .They moved in the deep forest of northern Sylhet and started to live there. The government has not recognized them as an indigenous group rather identified them as Hindu. Local Bangale people consider them as a segment of Hindu and call them Pator, pathor, Patro and even sometimes Patro-khasi. The national and local level organizations officially recognize them as Patro indigenous community (PASKOP, 2006).

2.3.2 Socio-Economic Condition of Patro Community:

Patro community is a small indigenous group mostly underprivileged living in a remote area surrounded by forest trees and often teagardens or hills. Sometimes these villages seem to be situated along side of a *Chhara* (canals of fresh water from hills) or a pond. Most of these villages do not have transportation facilities. They usually walk a long distance of muddy road to commute. Sometime water bodies like *Chhara* (canals of fresh water from hills) has to be crossed to reach their village (Chowdhury and Saha, 2012.). The socio-economic condition of the Patro community is very poor. They depend on agriculture, fishing and collecting fire wood. Most of them are landless or have small land where they live and cultivate vegetable next to their houses for their own consumption (Chowdhury and Saha, 2012).

They are engaged in agricultural activities on other's land, collect and sell stone coals, make coal from wood, cut and sell fire woods. Most of them are found to work as day laborers and some are engaged in driving vehicles. (Chakrabarty, 2001). Although their inhabited areas are not far from Sylhet city they are less connected with urban areas in respect of living and livelihood because of the nature of employment and transportation. Education level of Patro community is very poor, there is no school close by. The literacy rate among the patros community is also very low. But currently some local government schools and NGOs have taken initiative to literate the Partro children with the children from main stream society around them. (Chowdhury and Saha, 2012.). There is no maternal and child health center in the area except satellite clinic (EPI center) where the health personal routinely visits to address the maternal and child health problems.

2.3.3 Housing Pattern:

There is no private court yard, just a linear courtyard for all families of the settlement. Rectangular houses face the linear court yard. Their housing follow linear pattern because with population increases their houses grow by length. They are generally peasants and don't need any large courtyard to sun dry paddy. So the courtyard they use is quiet utilitarian for their group-living. (Chowdhury and Saha, 2012.)

From the past, Patro homes are made of bamboos, mud and thatching straw. Mud is used as the foundation and the roof is framed by bamboo or wood and then covered by straw. The walls are made of bamboo, mud and cow dung. Nowadays, along with traditional house, Patros build houses using modern equipments. But the number of those multi storied buildings are few and some semi concrete structure house has also been found.

Typical Patro Housing

2.3.4 Indigenous Clothing

Although many Patro people have assimilated with the dominant Bangladesh culture in terms of fashion, they have preserved their own unique pattern of Clothing in the community. Traditionally the Patro male wear *Dhoti*[1] and the female wear *saris*[2]. Children among them are used to *gamcha*[3] around their waist. Now the situation has changed in respect to dressing pattern due to rapid movement of socio economic condition and cultural contact though they respect their time honored dressing culture. The young generation and middle-aged people are quite comfortable with trousers, jeans, *lungi*[4], shirt and T-shirt. Still the major proportion of women wear *saris* while young girls enjoy themselves wearing *salwar* and *kamij* than any other dress. Older people are habituated with *Dhoti* and *lungi.*

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1 It is a rectangular piece of unstitched cloth, usually around 4.5 metres or 15 ft long, wrapped around the waist and the legs and knotted at the waist, resembling a long skirt

2 An Asian female garment that consists of drape varying in length from two-nine yards in length and two-four feet in breadth/width/height, that is typically wrapped around the waist, with one end draped over the shoulder, baring the midriff.

3 A thin, coarse, traditional cotton towel found in India and Bangladesh that is used to dry the body after bathing or wiping sweat

4 It is a rectangular piece of stitched cloth, wrapped around the waist and the legs and knotted at the waist, resembling a long skirt

5 The Upazilas are the second lowest tier of regional administration in Bangladesh.

2.3.5 Geographical Concentration and Population

The Patro community is geographically concentrated entirely in the three *Upazila*[5] of Sylhet district where, there are six Union Parishad consisted of thirty two villages. There was no information in the census report on Patro community living at those three *Upazilas* in Sylhet.

Table: 1 Distribution of Patro population by geographical area

Upazila	Union	Village	Population	Male	Female
Sylhet Shahporan Thana	Khadimpara	Daloipara, Kulaouti, Kushirgol, Laogol, Malgao,	1210	622	588
	Khadimnagar	Paikpara, Kushal, Alaibahar, Faringura, Bararhat, Mahkarkhala, Sidargol, Dhardharani, Bazartol, RakhalGul and Khatadhiga	1068	517	551
Jaintapur	Chiknaigul	Kohaigol, Kalishari, Gabandar, Senapatitila, Thakurrmati	1082	518	564
	Jaintapur	Mukampunji, Alobagan	209	99	110
Goainghat	Fatehpur	Barnagar, Ramnagar, Gulni, Rajarbagica, Baragul	565	275	290
	East Jaflong	Lamapungi, Nakshiapunji, Pratabpur, Aglapur	526	248	278
Upazila= 3	Union =6	Village =32	4660	2279	2381

(Source: Annual report, PASKOP, 2007 & Oxfam-Danida Partner's Baseline Survey 2007)

Government did not take any initiatives to provide separate information regarding this community. Few NGOs already have started working in those areas and prepared a data sheet on those population in 2007 based on a 'Baseline survey' jointly conducted by "Oxfam and Danida" and a local welfare organization (PASKOP).

2.3.6 The Clan System

The clan system of Patro community was developed mainly around their profession and functions, which is very difficult to trace and identify as the people has developed a relatively modified pattern of professional tasks. The term clan is known as *'Roi'* in their community. The members of a Roi believe that they descended from the common ancestor and they always consider themselves as united in the same bond. Traditionally, at least three *Roi* used to live in a village as their ritual provision demand that three representatives from three *Roi* must be present in cremation. (Miah, 2008)

2.3.7 Language

The Patro people have their own language which is known as 'Laleng'. Usually they communicate through this language within their familial environment but they do not practice Laleng while communicating with mainstream society. Still many older persons especially women are not able to speak in any language except Laleng. A large proportion of people can communicate in Bangla but neither in a standard form nor in a position to anticipate standard Bangla. In fact, they are not that much habituated with Bangla to communicate frequently and young generation face trouble at school quite frequently. The most unfortunate matter is that they have failed to record any of the alphabets Laleng. Even they do not have any written documents on this language. There are six pre primary schools for the children where they learn Laleng in Bangla alphabet; For example, kharoi means mango and the word kharoi is written is Bangla alphabet. These schools are operated by the local development organization (PASKOP) in association with Oxfam-GB with a view to prepare the children and to merge them with the mainstream education system as they have to struggle a lot for adapting with the learning environment. In several literatures, the Patro people have identified as Laleng community.

2.3.8 Family System

Joint family is their traditional family system where two or more nuclear families live together in a common shelter with common economic agreement. But, the present industrialized functional

labor system has triggered occupational mobility and affected the very traditional system as the system getting abolished gradually and moving forward to nuclear family system. Still most of the families in Khadimnagar, Khadimpara and Chiknagal have maintained joint family system. The matter of fact is, most of the nuclear families migrated from joint family to other location where they have greater scope to sell the labor for their livelihood.

2.3.9 Religion

The Patro people are traditionally pagans, believing in individual spirits and in many instances, carrying over to things, the attitudes and procedures used to handle people. The Patro community has converted to Hinduism. This conversion took place (according to popular belief among the Patro) long ago, during sovereignty of Raja Gaur Govinda. How and why the conversion of the Patro took place seems to be a debatable point. The people I interviewed were unble to communicate on this point and the secondary sources available did not shed any light on the matter. The Patro cannot be classified as 'orthodox' Hindus, when asked (during my data collection) a Patro man what his religion is and he replied, 'Sanatan Hindu'. This is because having being converted to Hinduism they have retained many elements of their ancient (Sanatan) culture and religion. The Patro have been able to maintain this cultural integrity throughout their religious change largely due to the ritualistic nature of Hinduism in general and the negligence of the Hindu establishment in Bangladesh (Azim F.c, 2001.)

2.3.10 Marriage

Traditional marriage system of Patro community is monogamy. A man or woman of any *Roi* (clan) can marry a woman or man of another, except his /her own *Roi* (clan). All forms of cousin marriage are prohibited. Moreover, a man can not marry a woman older than him or any aged women.

One of the female participants of Patro community said, "*If any Patro girl's age became 23-25 years old then it would be very difficult to give her marriage.*"

Widow marriage is strictly prohibited in the Patro society. In reality, most of the people among Patro community avoid the widow in a sense (a strong belief among Patros) that widowhood is ascribed on her due to severe sin committed by her. There is no divorce system within them.

Like other human societies, the longest, most complex and possibly, most important social ritual among the Patro is that of marriage. The observance of this ritual remains strictly conventional, though the marriage ceremony is solemnized by Brahmon, a member of the highest priestly class of Hindu society.

A female leader of Patro community mentioned (during data collection of the present study) ...

"There are two types of marriage patterns; one is "Brahmmon Marriage" which sanctifies by a Brahmmon or priest who would be the witness of marriage. In that type of marriage, in the first day just the bride will do agnish[6]akshi or "Shat-pak[7]" in Bangla language (where the bride will circle the marital fire seven times a ceremony which is symbolic of the marriage). In the second day, both the bride and groom must do agnishakshi or "Shat-pak" at groom's house. In the third day, only groom (without bride) will go to another relative house (for example: groom's sister house) for two and half days long. After completing this session the groom will come to his house again along with the relative with lots of sweets. Then again they will do "Shat-pak" in front of all relatives in their house. In that night the bride and groom will go for live together; this is called "Kal-Bashor". Next day the groom will go to the market and buy some food for family and bride will bring water from pond/tube-well to serve the family member. After eight days both bride and groom will visit to bride's parent's house and return to groom's home in that day. Then again after eight days they will visit to bride's parent's house for one night. The "Brahmmon marriage" is usually expensive. Another type is "Non-Brahmmon marriage" where almost all the activities are same from the "Kal-Bashor" except "Shat-pak". In this type of marriage "Shat-pak" is done only one time without any approval or witness of Brahmmon or priest. That's why this type of marriage in not actually uniformly accepted as regular wedding."

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[5] By the witness of fire

[7] Seven times round

Chapter Three

Methodology

3.1 Research Methods

Both qualitative and quantitative research methods were used in the study. The study leads with quantitative methods on antenatal and postnatal health seeking behavior in the reproductive ages of women. Subsequently an in-depth interview was taken on certain aspects of the antenatal and post natal care of the Patro women.

3.2 Study Population and the Sampling Procedure

All Patro women of reproductive age (age 15-49); who had at least one child aged less than three years, living in the study area constitutes the population of the study. At first six villages were selected from 32 villages by simple random sampling technique 108 respondents were selected from these six villages by using purposive and chain referral sampling process because of small number of Patro women living in that area.

3.3 Sample Size

A total number of 108 women in the reproductive age were selected from six villages within six unions of Sylhet district by chain-referral sampling procedure.

3.4 Ethical Aspects

The research process and design has been guided by the Ethical Guidelines of the Social Research Association. Participations in the study were voluntary and relied on the principle of the consent. Moreover, as a part of the consent process, ground rules would be negotiated regarding the confidentiality of the proceedings with respect to protecting the right to anonymity of individual participants. An assurance was given that after completion of the discussion, there were things that they would not want to include, would be removed from the lists. It is explained that the anonymity of individual participant's would be preserved, with their actual words in print.

3.5 Sources of Data Collection

Data were collected from primary and secondary sources for the study. As a primary source of data collection Patro women and her husband were considered. As a secondary sources research books, research report, journal, articles, newspaper, magazine, websites and other documents were reviewed.

3.6 Data Collection Method

In this study individual interview is mainly used for data collection. But the study make more effective observation method probe for detailed information on Patro women's antenatal and postnatal health care situation during the in-depth interview. During the in-depth interview observation revealed the contexts and immediate environment under which Patro women maintain their everyday life.

3.7 Instruments of Data Collection

Interview schedule or questionnaire is mainly used as instruments of data collection. In addition, dairy and note book was used as a data collection instruments. Interview schedule includes a range of open-ended and closed questions to understand the health care system, societal, economic, and cultural aspects. To allow for a demographic and socio-economic description, participants were asked about their personal background, including age, gender, and education, construction materials used for household, employment status, income, living arrangement and other relevant questions.

The observation was employed mainly to harmonize and cross check the data collected through interview. Observation was used to see Patro women in their normal settings, especially in their living, house setting, work, worship and cultural practicing places. The interaction with their own community and other community members provided valuable information on the conditions and processes under which each Patro women's antenatal and postnatal health care practice.

3.8 Duration of Data Collection

Data collection was completed by 30 days after finalizing the research proposal.

3.9 Operational Definition of Some of the Variables

For the purposes of the study the following definitions were used to delineate

3.9.1 Indigenous Peoples:

United Nation revealed that there is no formal universal definition of the term indigenous people. However, the classical definition is now more or less accepted in different quarters (Kingsbury; 1998). From Asian perspectives, two characteristics used by Asian Development Bank as working definition of indigenous people are:

(i) Descent from population groups present in a given area, most often before modern states or territories were created and before modern borders were defined; and

(ii) The maintenance of cultural and social identity as well as social, economic, cultural, and political institutions separates the group from mainstream or dominant societies and cultures.

In this study the Patro indigenous community is considered as indigenous community in Sylhet district who are socially, culturally and politically separated from mainstream society.

3.9.2 Antenatal Care (ANC):

Care provided to improve the health of the pregnant woman and her baby by monitoring the progress of the pregnancy and detecting and managing any problems.

In this study antenatal care is considered as the immunization of Tetanus toxin, measuring the weight of pregnant mother, risk assessment, assessment of pregnancy status, iron tablet supply, breast feeding advice, care seeking behavior during pregnancy and delivery period, advice on nutrition, health education and safe delivery etc.

3.9.3 Postnatal Care (PNC):

PNC involves care of the mother and baby for 40 days following birth, and provides the opportunity to assess the mother for any medical, mental, emotional and social issues, and early assessment of risk factors and physical problems in the baby.

In this study postnatal care is considered as the service after delivery on breast feeding, measuring weight of baby, vaccination of baby, treatment for child diseases and advice of contraceptive use.

3.9.4 Health Seeking Behavior:

Health or care seeking behavior has been defined as any action undertaken by individuals who perceive they have a health problem or to be ill for the purpose of finding an appropriate remedy. This is based on an explanatory model that represents a coherent picture of specific cultural features that affect people's health behavior. The explanatory model of a particular illness consists of signs and symptoms by which the illness is recognized; presumed cause of the illness and prognosis established. These are in turn interpreted by individuals and or significant others and on labeling the problem, proceed to address it appropriately through recommended therapies.

3.10 Data Processing and Analyses

Data were entered into the personal computer. A total 108 recorded as valid data. Data were cleaned. Both range and consistency were checked. After checking data, the variables that are selected for analysis are: demographic (age and number of children), socio-economic (school attendance, occupation of women), means of transportation, accompany person with women, ANC and PNC services, antenatal, postnatal and delivery complications and delivery assistance of the women), and husband's school attendance, and occupation. Data were then categorizes into groups to use it in the analysis. Data are grouped as follows: age of the respondent in three different groups (<20, 21-29 and 30+), both education of the respondent and education of husband's were categorized in three value (illiterate which means no education, primary i.e 1-5 years of schooling and secondary means 6 years to Secondary School Certificate). As all of the women's occupation was housewife so there is no recoding, but the occupation of husband was categorized in two groups (day labour and business/service). The place of service center was categorized into three groups (government service center which include Upozella Health Complex (UHC), family welfare center, satellite clinic, and EPI center and private service center which includes Private Doctor and local Pharmacy) and no service center.

Both univariate and bivariate analyses were carried out using the SPSS. Univariate analysis was carried out in terms of frequency distributions; bivariate analysis was carried out to see the

relationship between variables and Chi-square test was employed to examine the degree of relationship or association between two variables. The response variables for bi-variate analyses were: visit for antenatal care (yes = 1, no = 2), visit for postnatal care (yes = 1, no = 2), the explanatory variables such as independent variables used in bi-variate analyses were demographic (age and number of children) and socio-economic (school attendance, occupation, husband's school attendance, husband's occupation) variables of the respondents. Logistic regression model was fitted to explore the relation between antenatal care and post natal care of Patro women with demographic and socio-economic factors controlling the effect of other variables. The response variables were: visit for antenatal care (yes = 1, no = 0) and visit for postnatal care (yes =1, no =0). The explanatory variables included demographic (age of respondent and number of children), socio-economic (education of respondent, husband's education, husband's occupation, boy or girl preference), variables of the respondents.

3.11 Limitation of the Study

There are some limitations of this study. These are as follows:-

- The research results and the reliability and validity of the data might be influenced by some challenges I faced during data collection. For example, difficult walkway due to muddy area into the community by research assistants, difficulty in understanding the language and interaction with them.
- The number of respondent was not so large. Most of the villages were situated in remote areas and the way to reach the Patro villages was walking. When the data collection was conducted during the rainy season in June to August, heavy rains washed away the mud paths and made them slippery and dangerous to reach the respondent's house. Sometimes it takes a long time to reach one respondent's house. So it was not easy to reach a large number of respondents' house.
- Sometimes I faced a little difficulty during conducting the interview. Since, the issue is gender sensitive, it demanded a female interviewer.
- Language was another challenge I faced during data collection. Usually it took time to make the respondent understand properly by the help of research assistant.

- Most of the respondent did not want to give enough time because of the lengthy questionnaire.
- Finally, the last limitation I have to mention that, in the present thesis a comparative analysis was carried out using national and regional (Sylhet Division) statistics. While, the national and regional statistics were taken from a national representative sample, the present study population was drawn using a purposive sampling that may produce some biases.

Chapter Four

Findings and Analysis of Bivariate Data on Prenatal, Postnatal and Delivery care of Patro women.

Analysis was carried out on Patro women and comparative analysis was made to see the differential in pre, post and delivery care and general characteristics of the Patro women with women of Sylhet division and national level. Results of the univariate and bivariate analyses have been discussed here. The information that have been used in the analysis are socio-economic and demographic characteristics of women, women health seeking behavior, maternal health service provided by GO and NGOs in the study area, complications that faced by Patro women during pregnancy, delivery and after delivery, delivery place and birth-attendants and the reasons for not going to the service centers.

Section One

4.1 Background Characteristics of Study Population:

4.1.1 Age and Education Level of the Patro women

Analysis shows, (Table 2) that the highest number of Patro women (63.0%) is in age group 21-29, but only 14.8 percent and 22.2 percent Patro women belong to the age group less than or equal 20 and above 30 years old respectively. Whereas, the national level data shows that the highest percentage of women was in older (30+) age group (49.6%).

Table: 2. Percentage distributions of Patro and national women by age.

Age range	Number of Patro women (N=108)	Percent of Patro women	National level percent of women (BDHS 2007)* (N=10996)
Age ≤ 20	16	14.8	13.0
Age 21-29	68	63.0	37.4
Age 30+	24	22.2	49.6
Total	108	100	100

* BDHS 2007:page 26

In the field of education, data in table 3 shows that the percentage of illiterate women is highest (48.1%) among Patro women followed by women of Sylhet division (45.4%), compared to national women (34.1%). Whereas primary education is highest among the Patro women, compared to national women and women of Sylhet division. But secondary education is highest among national women (36.3%), followed by Sylhet division while this was the lowest (11.2%) among the Patro women.

Table: 3. Percentage distribution of national, divisional and Patro women in reproductive ages by their level of education.

Level of Education	National level* (N= 10996)	Sylhet Division* (N= 707)	Patro women (N= 108)
Illiterate	34.1	45.4	48.1
Primary	29.5	29.1	40.7
Secondary	36.3	25.1	11.2

* BDHS 2007:page 28

4.1.2 Education Level of Husband of Patro women

The level of education among the husband of Patro women is generally poorer than the national level and Sylhet division (Table: 4). Though the level of primary education is comparatively better among the husband of Patro women, but the percentage of illiterate is close to or similar among the husband of Patro women and husband of local level Sylhet women and national level. However the percentage of secondary education is lowest among the husbands of Patro women (9.3%), compared to husbands of Sylhet (24.3%) division. Secondary education is highest (36.5%) among husbands of national women, compared to husbands of Patro women and their counterparts in Sylhet division.

Table: 4. **Percentage distribution of education of husbands of Patro women, women of Sylhet division and their national level counterparts.**

Level of Education	National level*(n=3771)	Sylhet Division*(n=227)	Patro Husband (n=106)
Illiterate	30.7	34.5	32.4
Primary	32.8	41.2	58.3
Secondary	36.5	24.3	9.3

* BDHS 2007

4.1.3 Occupation of the Patro Women and their Husband

Another important factor to get health care of women is the occupation and profession of Patro women. In this study it is found that hundred percent Patro women are engaged in house work, while the percentage among Sylhet division is 83.2% and national level is 65 % (NIPORT, 2009). On the other hand, more than eighty percent of husbands of Patro women (82.2%) are day laborer including farmers, while a much lower proportion of their counterparts in Sylhet division and national level are engaged in non-skilled occupations. But a greater proportion (50.3%) of husbands of national women and Sylhet division women (51.2%) are engaged in skilled occupations compared to only 17.8% of husband of Patro women. (Table: 5).

Table: 5 Percentage distribution of occupation of husbands of Patro women, Sylhet division women and national level women.

Level of Occupation	National level* (n=3731)	Sylhet Division*(n=186)	Patro Husband(106)
Day laborer (Including farmer/unskilled labor)	49.7	48.8	82.2
Business & skilled Services	50.3	51.2	17.8

*BDHS Report, 2007

Section-II

4.2 Access to Health Care Services and Health Care-Seeking Behavior

4.2.1 Place of Service Center in Local Area or Village

The data in table 6 show that fifty percent of 108 respondents reported to be aware of the place of Expanded Program of Immunization (EPI) center in their local area, while half of the respondents reported that there were no such service centers in the area.

Table: 6 Percentage distribution of the knowledge of health service center in local area by socio-economic background of Patro women.

Variables	Health service center in local area		
	EPI Center	No service center	Total (n=106)
Age of respondent			
Less than 20	50	50	16
21-29	57.4	42.6	68
30+	27.3	72.7	22
χ^2	*p=0.049*		
Education of respondent			
illiterate	56	44	50
Primary & secondary	44.6	55.4	56
χ^2	*p=0.243*		
Husband education			
illiterate	44.1	55.9	34
Primary & secondary	52.8	47.2	72
χ^2	*p=0.405*		
Husband Occupation			
Daily labour	44.2	55.8	86
Business & Service	73.7	26.3	19
χ^2	*p=0.020*		
Total Number of alive children			
1-2 Children	61.4	38.6	57
3 or more	36.7	63.3	49
χ^2	*p=0.011*		

* Sum of all frequencies may fall of total due to non-responses.

Data in table 6 shows age of the respondent and her number of children (parity) have almost similar relationship with knowledge of a health service center in the study area, in which the knowledge is reported to be higher among younger women (age less than 30) and women with fewer children (1-2 children) followed by women of higher age (above 30 years) and higher parity (women with 3 children and above). This finding is in the expected direction as young women and women with lower parity and likely to be relatively more educated and therefore more likely to be aware of health care needs and places of its availability. The relationship between age and parity of women were found significantly associated with knowledge of place of a health service center.

However, data show different types of relationship between education of the respondent and her husband with knowledge of place of place of health service center, in which respondent's education shows a negative relationship with her knowledge of a place of health service center, In other words the higher the level of education of the respondents the lower the level of knowledge of a health service center. However, in case of her husband's education the reverse is the situation in which the level of knowledge of a health service center shows a rising trend with his level of education.

Occupation of husband had significant association with the reporting of knowledge of a health service center, in which husbands of Patro women who were engaged in business and service reported to have significantly higher knowledge of a health service center than those of their husbands who were day laborers. However, neither the education of Patro women nor the education of their husbands are significantly associated with the knowledge of a health service center in the study area.

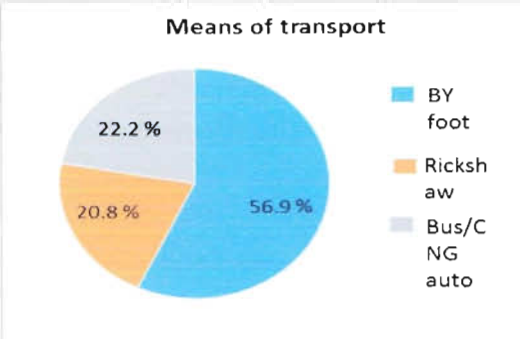
Regarding EPI center one respondent said, *"EPI center held on a place of our village where everybody can go. Every after two/three month the service provider come and gives maternal service like vaccination, iron tablet supply etc. Mainly we receive vaccination in EPI center."*

4.2.2 Means of Transportation to Visit the Service Center

Among total of 72 respondents who visited local EPI center either during antenatal care or postnatal care, their means of transportation was mostly by foot (56.9 %) (Figure: 1) However,

21 percent of Patro women who visited services center used Rickshaw and 22.2 percent used Bus/CNG auto as means of transportation respectively.

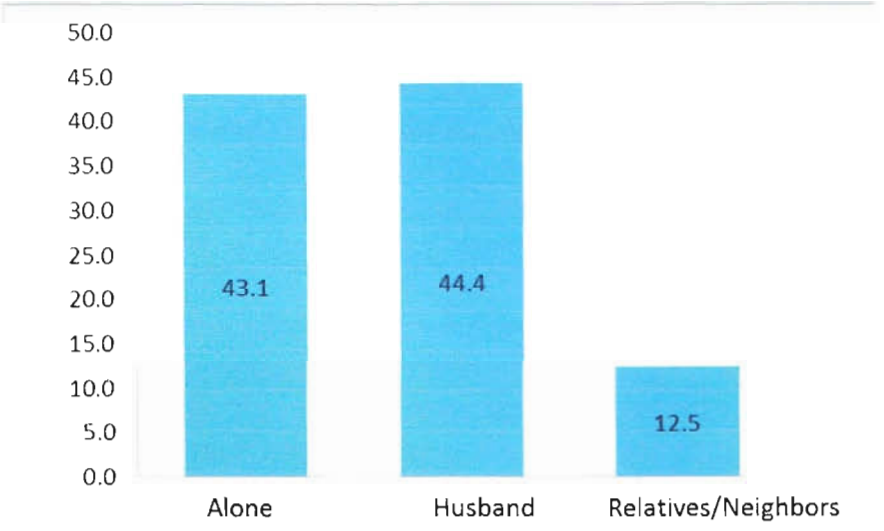
Figure: 1 Means of transportation used to visit the service center



4.2.3 Accompanying Person for Visiting Service Center

The data also demonstrated that (Figure: 2) 44.4% of Patro women who visited the service center during pregnancy or after child birth were accompanied by their husbands. As almost similar percentage of Patro women visited service center by their own. Only 12.5 percent Patro women visited the service centers during pregnancy or after child birth accompanied by their neighbors and relatives.

Figure: 2 Percentage distributions of Patro women visiting ANC center by type of accompanying person.



4.2.4 Health Care Seeking Behavior

The most important factor which is associated with the care seeking behavior is the source of information regarding maternal health services. The study (Table 7) revealed that almost eighty percent (78.5 %) of 108 Patro women reported they haven't received any information regarding maternal and child health services from any source, only 15 percent of 108 Patro women reported to have maternal health information from maternal and child health (MCH) service providers.

Table: 7 Percentage distributions of 108 Patro women by the source of information regarding maternal and child health service.

Source of Information	Percentage*	No. of Patro women
Did not get any information	78.5	84
MCH provider	15.0	16
Mass Media	2.8	3
Relatives	0.0	0
Neighbors	7.5	8

*May exceed 100% because of multiple responses.

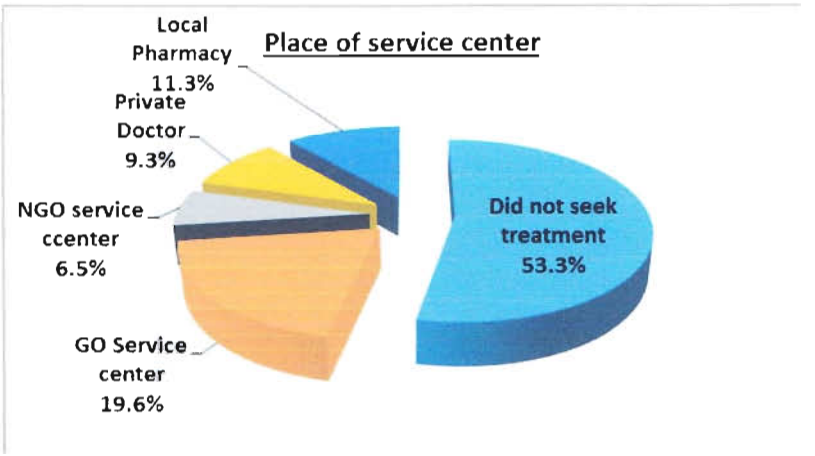
4.2.5 Places of Service Centers the Patro Women First Went to Seek Treatment.

Figure 3, shows that more than half of the 108 respondents (53.3 %) reported that they did not seek treatment during pregnancy and after delivery in their last pregnancy period, while only 26.1% and 20.6% sought treatment from GO/NGO service centers and private doctor/pharmacy respectively.

According to a respondent, *"I did not seek treatment from a service center because a NGO service provider came to my house and provided me maternal health services."*

Another respondent mentioned, *"There are no service center in our area and we also don't know from where we can get maternal health services. We do our treatment by ourselves. That's why we did not seek treatment during pregnancy or after delivery."*

Figure: 3 Percentage distribution of Patro women by places of service center they went first to seek treatment (n=108).



Data in table 8 demonstrates that age of the respondent has U-shape relationship with health care seeking from different places of service center. In which the percentage of care seeking from different service centers is higher among young women less than 20, then it drops among women over 20 years but less than 30 years, but rises at the highest level among relatively older women aged 30 years and above. However the age shows no significant association with seeking health care services. Data show a considering relationship between education of the respondent and her husband with seeking health care services from different places in which education of the respondent shows a positive association, while the education of her husband shows a negative association with seeking health services from different sources. However, this relationship is not found to be significant. Data also show illiterate women tend to visit relatively more frequent to GO/NGO service centers than private doctor/pharmacy while their literate husbands with primary and secondary education also tend to visit more frequently GO/NGO service centers, a finding difficult to explain, may arise from the effect of education with other variable. As expected husbands of Patro women engaged in business and service tend to visit more frequently private doctor/pharmacy centers than the GO/NGO service centers, while the reverse is true for the husbands who are engaged in day laborer, tend to visit less frequently the GO/NGO service centers and private doctor/ pharmacy.

Data also show almost similar pattern of visiting service center by parity of women, in which women of low parity tend to visit more frequently the GO/NGO service center and private

centers. However, women of low parity tend to visit GO and NGO health centers than the women of high parity and this difference is found to be statistically significant.

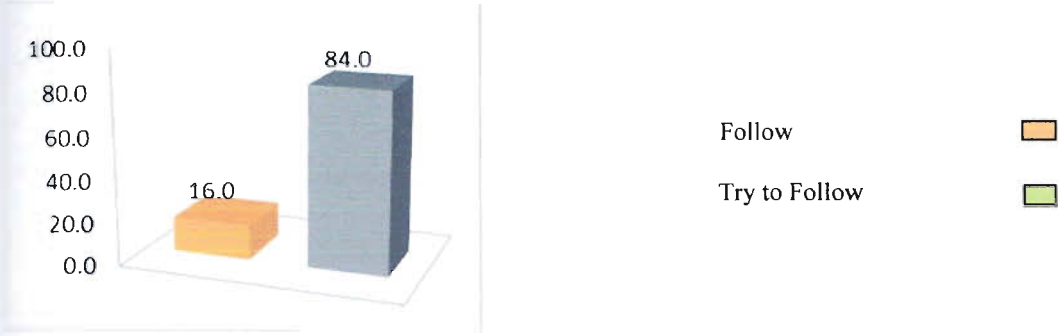
Table: 8 Percentage distributions of Patro women who sought care from different places of service centers by their socio-economic characteristics.

Variable	Did not seek treatment	GO/NGO Service center	Private doctor/Pharmacy	Total (n=107)
Age of Respondent				
Age less than 20	53.3	20	26.7	15
Age 21-29	48.5	30.9	20.6	68
Age 30+	66.7	16.7	16.7	24
χ^2	p=0.530			
Education of Respondent				
Illiterate	46.2	28.8	25	52
Primary & secondary	60.0	23.6	16.4	54
χ^2	p=0.331			
Husband Education				
Illiterate	58.8	17.6	23.5	34
Primary & secondary	50.7	30.1	19.2	73
χ^2	p=0.390			
Husband Occupation				
Daily labour	59.8	25.3	14.9	87
Business & Service	26.3	31.6	42.1	19
χ^2	p=0.010			
Total Number of Living Children				
1-2 Children	41.1	33.9	25.0	56
3 or more children	66.7	17.6	15.7	51
χ^2	p=0.029			

4.2.6 Follow up ANC and PNC advice

Data reveals that 16% of 72 Patro women followed advices taken from the service center or given by the medical assistant and majority (84 %) of them replied that they tried to follow advice. (Figure: 4)

Figure: 4 Percentage of respondent opinion regarding advice taken from the service center



Advice followed by women

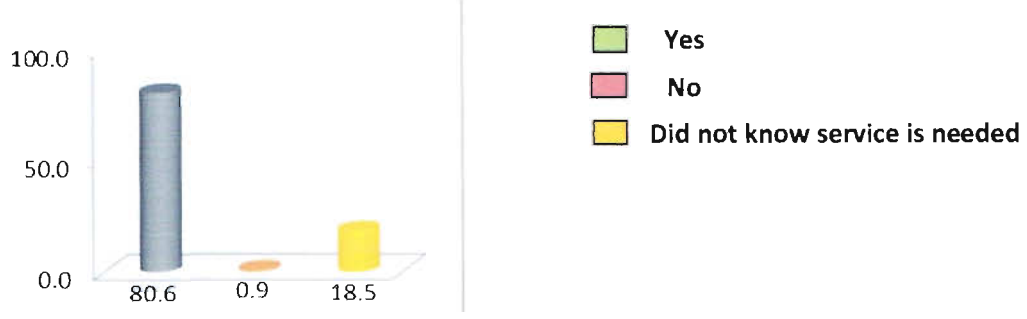
According to a respondent, *"We women are responsible for the entire household work, we did not find enough time, that's why we could not follow the doctor's advice accurately but we try to follow the advice."*

Another participant said, *"As I am a vegetarian that's why I could not follow food advice appropriately."*

4.2.7 Opinion Regarding ANC and Delivery Care Seeking Behavior

The attitude of Patro women regarding treatment seeking behavior is high. They feel that they need expert advice during pregnancy and after delivery even though they were not sick. Most of the respondents (80.6 % of 108 respondents) mentioned that women should seek treatment during pregnancy even though they are not sick. (Figure: 5)

Figure: 5 Opinion regarding ANC and delivery care seeking behavior.



According to a respondent…

"After conceiving a baby the mother might face some complications which might affect the baby, the mother should also know the condition of the baby in her womb, that's why every pregnant women should seek treatment or health advice during pregnancy and after birth for safe delivery and better maternal & child health."

Another respondent said, *"Sometimes some babies became dumb or physically handicapped which mother and family could not recognize before birth, so every mother should go to the doctor before and after delivery."*

On the other hand approximately one-fifth (18.5 %) of 108 Patro women reported that they did not know whether or not women should seek treatment during pregnancy even though they are not sick. However, there was very negligible percentage (only 0.9 %) of 108 Patro women opinion opposed.

According to a respondent, *"In previous generation our pregnant women did not seek any maternal services from the service center and they did not face any problem regarding this, that's why we do not know whether or not women should seek treatment during pregnancy even though they are not sick."*

4.2.8 Opinion Regarding Delivery

More than eighty per cent (85.2 %) of 108 Patro women mentioned that safe delivery is possible by taking maternal and child health care service, Only 13.9 % reported to be not possible. (Figure: 6)

Figure: 6 Patro women's opinion regarding Safe Delivery

One participant said, "*By taking maternal and child health care services (for example, blood test) we can identify our complications during pregnancy which might help us to improve our maternal and child health situation as well as safe delivery.*"

According to another participant, "*My previous pregnancy and delivery was more or less safe without taking maternal health care services, so I don't know whether or not safe delivery is possible by taking maternal and child health care service.*"

Section-III

4.3.1 Antenatal Care

Table: 9 presents the percentage distribution of patro women who had a live birth in the three years preceding the study by antenatal care visit along with Sylhet and national level statistics. Among 108 Patro women 37 percent reported that they visited to the service center for antenatal care services. A comparative analysis of Bangladesh demographic and Health Survey, 2011 and present study found that the percentage of antenatal care visit among Patro women is considerably lower than the regional women of Sylhet (51.8 %) and national women (67.3%). The percentage of receiving antenatal care among the women in Sylhet division is also lowest than other divisions in Bangladesh.

Table: 9 Percentage distribution of ever married national women reported they have received (or not received) antenatal care (ANC) by age and region according to BDHS 2011.

Background Characteristics	Status of receipt of antenatal care (n=4652)	
Mother's age at birth	**Yes**	**No**
< 20	71.5	28.5
20-34	67.0	33.0
35+	50.8	49.2
Division		
Barishal	67.7	32.3
Chittagong	62.8	37.2
Dhaka	67.6	32.4
Khulna	77.0	23.0
Rajshahi	71.3	28.7
Rangpur	77.1	22.9
Sylhet	**51.8**	**48.2**
National level	**67.3**	**32.1**
~~*Patro (n=108)~~	~~37.0~~	~~63.0~~
***Patro (n=108)**	**37.0**	**63.0**

Source: NIPORT, 2012 * From the present study

In table 10 shows age has an inverted U-shaped relationship between age and the use of antenatal care, in which antenatal care rises from 37.5% among younger women age less than 20 to higher 48.5% among post-adolescent women in the ages 21-29 and then it drops to lowest 4.2% among

the women ages 30 years and above. And this relationship between age and use of ANC is found to be significant.

In table 10 study data shows an inverse relationship between Patro womens' education and use of ANC. In other words, use of ANC care declines with increase in education of Patro women. But the reverse is shown for Patro women husbands' education and use of ANC. In other words, use of ANC increases with education of husband. For example, ANC visit increases from 31.4% among women whose husbands are illiterate to 36.5% and 60.0% among women whose husbands have primary and secondary education respectively. Hence these differences in ANC care by level of education, irrespective of women and husband's education are not statistically significant.

Data in table 10 also shows that occupation of husband had significant affect on antenatal care visit; about 57.9 percent of women visited the service center during pregnancy whose husbands were involved in business and services, while the corresponding percentage among women whose husbands were involved in other works like day labor and agriculture were considerably lower (31.8%). In other words, age of antenatal care is considerably higher among women whose husbands are engaged in white collar occupations than those women whose husbands are engaged in blue collar occupation and these difference in ANC are found to be statistically significant.

Data shows inverse relationship between parity (Number of living children) and ANC visit. The higher the number of living children, the lower the ANC visits. For Example, ANC visit decline from 53.3% among women with 1-2 living children to 20% and 0% among women with 3-5 children and 6 children and above respectively.

Table: 10 Percentage distributions of Patro women who visited different maternal health service centres during their last pregnancy by background variables.

Variables	Received Antenatal care		Total
	Yes	No	(n=108)
Age of the Respondent			
≤ 20	37.5	62.5	16
21-29	48.5	51.5	68
30+	4.2	95.8	24
χ^2	(p=.001)		
Education of Respondent			
Illiterate	38.5	61.5	52
Primary	36.4	63.6	44
Secondary	33.3	66.7	12
χ^2	(p=.940)		
Husband Education			
Illiterate	31.4	68.6	35
Primary	36.5	63.5	63
Secondary	60.0	40.0	10
χ^2	(p=.254)		
Husband Occupation			
Daily labour	31.8	68.2	88
Business & Service	57.9	42.1	19
χ^2	(p=.032)		
Number Of Living Child			
1-2 Children	53.3	46.7	60
3-5 Children	20.0	80.0	40
6+ Children	0	100	7
χ^2	(p=.000)		
Total (Patro women)	**37.0**	**63.0**	**108**

4.3.2 Utilization of Place of Service Center for Antenatal Care

Data in table 11 shows utilization of different types of service centers for ANC, which may be grouped as public, private and some other sectors. Public sector includes Upazila Health Complex, Family Welfare Center, and EPI center while private sector includes private doctor and local pharmacy.

Table: 11 Percentage distributions of Patro women by places of service centers compared with national & regional (Sylhet division) level.

**Places of ANC	National Level*	Sylhet Division*	Patro Community
Public Sector	41.9	36.5	45.0
Private Sector	36.9	49.8	55.0
Other Sector	33.1	23.4	--

* BMMS 2010 Preliminary Results. **May exceed 100% because of multiple responses

A comparative analysis of Bangladesh Maternal Mortality and Health Care Survey, 2010 (NIPORT, 2011) and the present study reveals that the private sector dominates among service centers in providing ANC to Patro women (55.0%) followed by women of Sylhet division (49.8%), while among national women, public sector dominates, followed by private sector and other sector. A significant proportion (45%) of Patro women also visit public sector to receive ANC service.

4.3.3 Types of Services Provided by Service Centers During ANC Visit:

Table: 12 illustrates the percentage distribution of women by various types of antenatal services such as vaccination, supply of iron tablet, nutrition education, and advice of breast feeding which they received from the service centers.

Table: 12 Percentage distributions of women by different types of antenatal services.

Types of ANC care	Percent*	Number of Patro women
Vaccination of Pregnant women	82.5	33
Measuring weight of pregnant women	25.0	10
Iron tablet supply	62.5	25
Advice for breast feeding	52.5	21
Health Education	2.5	1
Nutrition Education	40.0	16

Patro women received different type of services while visiting a service center these include: vaccination of pregnant women, measuring weight of pregnant women, iron tablet supply, advice for breast feeding, health education and nutrition education. However, a highest proportion of Patro women (82.5%) received vaccination followed by iron tablet supply (62.5%), advice on breast feeding (52.5%) and nutrition education (40%).

4.3.4 Number and Period of Antenatal Care Visits

Although overall antenatal care visit was very low (37%) among the Patro women compared to regional and national level women but once they started visiting service center for ANC continue it for subsequent trimester unlike women of national level. At least one-third of Patro women visited service center in their first, second and third trimester, while, among national women a similar pattern doesn't reveal. ANC shows an inverted U shape pattern among national women in which a moderate proportion of their (21.3%) begins ANC in 1st semester, then their proportion rises to the highest level (42%) at 2nd semester and then it tapers off at the lowest level at the 3rd semester. In term of number of times antenatal care visits a higher percent of Patro women visited one and two times during pregnancy than national level.

Table: 13 Percentage distribution of Patro and National women who had a live birth in the three years preceding the study by timing of visit and number of antenatal care visits.

Period when 1st visit	National level * (n=17,149)	Patro women (n=40)
1st trimester	21.3	32.5
2nd trimester	42.0	30.0
3rd Trimester	7.9	37.5
Total	-	100
Number of antenatal visit		
1 time	17.4	40.0
2 times	15.9	35.0
3 times	14.4	15.0
4 times	23.4**	10.0

** BMMS Preliminary Results, 2010 ** Includes 4+*

4.3.5 Reasons for Not Seeking ANC

As it is noted earlier that about 63 percent of Patro women did not seek ANC during their last pregnancy and they also mentioned some specific reasons for not seeking the ANC. Table: 14 illustrates the percentage distribution of women who have mentioned specific reasons why they did not seek any antenatal care during their last pregnancy. Among the Patro women who did not seek ANC, more than half (54.4%) reported that they did not need any antenatal services during their last pregnancy, while a high proportion (61.6%) of national women also cited the same reason for not seeking ANC.

Table: 14 Percentage distribution of Patro and national women mentioning specific reasons why they did not seek ANC during last pregnancy.

Reasons	Patro women (n=40)	National level*(n=5919)
Expensive	44.1	26.3
Not needed	54.4	61.6
Service center in long distance/Too far	36.8	7.2
Family did not allow	0.0	5.6
Not Beneficial	2.9	-
Religious reason	0.0	3.6

*According to BMMS 2010 Preliminary Results
Note: Percentage may exceed 100 due to Multiple Responses.

Regarding "Not needed", one Patro women of the study mentioned that

"During previous pregnancy I went to a vaccination center for TT vaccination. After giving vaccination I came to home and became sick for three days. The provider told me that vaccination would not create any problem. But I felt very bad in those days. That's why I did not visit any service center for antenatal care during my last pregnancy"

Another Patro woman said, *"We don't know the place from where we can get maternal health or antenatal services."*

More than forty percent of the Patro women reported that they did not seek antenatal care because it is expensive (44.1%), while little over one quarter (26.3%) of national level women reported it is expensive as the reason for not seeking ANC.

There is another significant finding that, more than one-third of the Patro women (36.8%) reported that could not avail the ANC because the service center was very far away from their home while the same reason for not seeking ANC was mentioned by only 7.2 percent of national women. About 4% women of national level mentioned religious reason for not seeking ANC, while no Patro women mentioned this reason. It is also worth mentioning that Patro women reported to have received no objection from family to receive ANC while 5.6% women at national level reported to have faced family restriction to seek ANC.

One of the Patro women mentioned,

"After getting vaccination for the first time, I became sick and that's why I think it is not beneficial for me."

4.3.6 Complications During Last Pregnancy

The study (Table:15) exhibits different types of complications that women experienced during pregnancy or before delivery of last live birth in the three years preceding the study. A list of complications was mentioned during the study and women were asked what kind of complications they faced during their last pregnancy. Surprisingly, the study found that more than sixty percent women (63 %) reported that they suffered from headache and high blood pressure during their last pregnancy, which is two times higher than national level. (NIPORT and ICDDR'B, 2011). Approximately one-third of the Patro women (31.5%) mentioned that very often they experienced palpitation during their last pregnancy while no such complications was reported to have been faced by women at national level. Nearly two times more Patro women (39.8%) complained of pre-eclampsia/ edema compared to national women (18.9%).

Table: 15 Percentage distribution of Patro and national women who reported to have faced complications during the last live birth in the three years preceding the study.

Type of Complications	National level (n= 17149)*	Patro women(n=40)
Headache & High blood pressure	23.0	63.0
Palpitation	–	31.5
Hemorrhage	1.5	4.6
Pre-eclampsia/Oedema	18.9	39.8
Abdominal Pain	–	50.9
Excessive Vomiting	–	20.4
Physical weakness/Distaste	–	13.0

Note: Percentage may exceed 100 because of Multiple responses.

* BMMS- 2010 Preliminary Results

The data also reveals that about half of the Patro women (50.9%) experienced abdominal pain during their last pregnancy, while over one-tenth of them (20.4%) reported to have experienced excessive vomiting and physical weakness and distaste respectively during their last pregnancy while no such complain was registered by national women. Hemorrhage is also reported to be high among the Patro women (4.6%) compared with the women at national level (1.5%).

Section-IV

4.4 Cares During Delivery

4.4.1 Place of Delivery:

Table 16 presents the distribution of national, regional (Sylhet region/division) and Patro women who have had live births during three years preceding the study by place of delivery. The data exhibits that only 4.6 percent were delivered at the hospital among surveyed women, while 9.5 percent and 11.8 percent delivery occurred at the public health center in local region Sylhet and national level respectively.

Table: 16 Percentage distributions of national, regional and Patro women who reported to have live births in three years preceding the study by place of delivery.

Place of Delivery	National level*(n=4956)	Sylhet region*(n=375)	Patro Women(n=108)
Public	11.8	9.5	4.6
Private	15.1	9.7	–
NGO	1.9	1.8	–
Own House	71.0	78.7	95.4
Other/Missing	0.2	0.3	–
Total	100	100	100

* BDHS Report, 2011

Data shows that disproportionately, most births of patro women compared with national women and women of Sylhet division were delivered at own home. These percentage are 95.4%, 78.7% and 71% among Patro, Sylhet division and national women respectively. On the other hand, a relatively higher proportion of national (28.8%) women, and women of Sylhet division (21%) compared with Patro women (4.6%) have had their babies born at formal health centers mostly public and private health center.

4.4.2 Assistance During Delivery

A comparative analysis of Bangladesh Demographic and Health Survey 2011, and present study reveals that (Table 17) most of the deliveries (96.3%) among Patro women were assisted by "Dai" or untrained birth attendant, while proportion of births assisted by unskilled attendants was relatively low (58.5%) among women in Sylhet region as well as at national level. On the other hand, the percentage of delivery assisted by skilled birth attendants such as qualified doctor,

nurse, mid-wife and trained birth attendants was lowest (only 3.7%) among Patro women, compared to national level (42%) and women of Sylhet region (37%).

Table: 17 Percentage distribution of live births in the three years preceding the study by person providing assistance during delivery.

Assistance during Delivery	National level*(n=4956)	Sylhet Division*(n=475)	Patro Women(n=108)
Qualified Doctor	22.2	17.1	3.7
Nurse/Midwife	8.9	6.8	–
FWV,CSBA,FWA	1.0	0.9	–
Trained TBA	10.9	13.0	–
Untrained TBA	52.5	58.5	96.3
Unqualified Doctor	0.2	0.3	–
Relative & Friends	3.8	3.2	–
No one	0.4	0.2	–
Total	100	100	100

* BDHS Report,2011

Regarding assistance during delivery one respondent mentioned that she did not find qualified assistant in appropriate time, she said,

"When I went to the hospital for delivery, the qualified doctor was not present there and during this time my baby's hand/feet came out. There were no nurses available in that place. My mother has experience in child delivery and she assisted the delivery of my baby."

4.4.3 Other Factors Related to Delivery Care:

Table 18 showed that almost all babies of Patro women were delivered (98.1%) normally, while extremely few births were delivered (1.9%) by caesarean section. Patro women also reported relatively low cost of delivery of babies. For example, approximately three-fourth of the respondents (72.2%) mentioned that the cost of the delivery were within 500 taka. They also mentioned that the cost of delivery depends on gender preference.

Table: 18 Percentage distribution of babies by type of delivery, and cost of delivery.

Type of Delivery	
Normal	98.1
Caesarean	1.9
Total (n=108)	100
Cost of delivery	
0-500 taka	72.2
501-1000 taka	21.3
Above 1000 taka	6.5
Total (n= 108)	100

One of the respondents said, *"The cost of delivery will be low if there was a baby girl born and the delivery cost will be high if there was a baby boy born, because the family have to arrange a big party for baby boy, not for baby girl. The cost is also high for the first delivery"*

4.4.4 Complications During Delivery

A comparative analysis of Bangladesh Maternal Mortality and Health Care Survey 2010, (NIPORT, 2011) and present study reveals that (Table 19) disproportionately a large proportion of Patro women reported to have experienced many complications during delivery compared to women at national level. For example, almost one-third of Patro women reported to have experienced excessive hemorrhage and convulsion compared to a negligible proportion (1.7% to 3.3%) of national women reported to have experienced these episodes. Similarly, about 26% of Patro women reported to have experienced prolonged labor during the delivery which is almost double (12.7%) the proportion of national women reporting this incident.

Table: 19 Percentage of national and Patro women experienced complications during last delivery.

**Type of Complications during delivery.	*National level (n=17149)	Patro women (n=108)
No complications	**72**	**48.1**
Severe headache with blurred visioin	5.2	--
High blood pressure	1.6	--
Oedema face/feet/body	8.5	--
Mal presentation	1.3	--
Retained placenta	1.3	--
Excessive Hemorrhage	3.3	34.3
Convulsions	1.7	30.6
Prolonged Labor	12.7	25.9
Obstructed Labor	--	0.9
Hands/feet came first	--	1.9

*According to BMMS 2010 report **Multiple responses possible

(--) Data not available.

Section-V

4.5.1 Postnatal Care

Postnatal care visit is an essential element of safe motherhood. Various types of complications arise after delivery which could be life threatening for both mother and child.

The present study reveals that comparatively, a higher proportion of Patro women (50.9%) received postnatal care than national (30.1%) women and women of Sylhet division (25.7%). It shows women of Sylhet division lag behind national and Patro women in receiving postnatal care (Table: 20).

Table: 20 Percentage distribution of Patro women seeking postnatal care compared with national women and women of Sylhet division by time within which postnatal care was sought after delivery.

Timing after delivery	National level*(n=4905)	Sylhet*(n=384)	Patro women(n=108)
Within 2 days	27.0	20.4	1.9
Within 3-41 days	3.1	5.3	37.9
Within 42-90 days	–	–	11.1
Did not receive postnatal checkup	69.9	74.3	49.1

* BDHS Report,2007

Although the percentage of getting overall postnatal check-up was high among Patro women but it was found that the percentage of receiving postnatal checkup within two days after delivery among the Patro women was extremely low (only 1.9%), while the percentage of receiving care within 2 day is higher among women of Sylhet (20.4%) and women of national level (27%). However, the percentage of receiving postnatal care within 3-41 days after delivery is comparatively much higher among the Patro women (37.9%) than women in Sylhet division (5.3%) and national women (3.1%).

Table: 21, presents distribution of Patro women who visited different service centers after the last child was born by socio-demographic characteristics. The data in table 21 reveals that age of the Patro women had no such significant relation with postnatal care seeking behavior. Education of the Patro women had a significant relation with postnatal care visits. More than ninety percent

of the Patro women (91.7%) who have secondary level of education reported that they visited to the service center for postnatal care, while the percentage is low among the illiterate Patro women (44.2%). Though there is no such significant affect of husband's education on receiving postnatal care services but the percentage is considerably high among women (70%) whose husband have secondary level of education. Husband's occupation and number of children have no significant relation with receiving postnatal care after delivery.

Table: 21 Percentage distribution of women who visited different service center after the last child was born.

Variables	Visit after delivery		Total (n=108)
	Yes	No	
Age of Respondent			
Less then 20	50	50	16
21-29	55.9	44.1	68
30+	41.7	58.3	24
χ^2	p=.481		
Education of Respondent			
Illiterate	44.2	55.8	52
Primary	50	50	44
Secondary	91.7	8.3	12
χ^2	p=0.012		
Husband Education			
Illiterate	54.3	45.7	35
Primary	47.6	52.4	63
Secondary	70	30	10
χ^2	p=.396		
Husband Occupation			
Daily labour	53.4	46.6	88
Business & Service	47.4	52.6	19
χ^2	p=0.633		
Number of Living Children			
1-2 Children	58.3	41.7	60
3-5 Children	42.5	57.5	40
6+ Children	42.9	57.1	7
χ^2	p=0.296		
Boys & Girls			
Boys & Girls equal	45.5	54.5	22
Boys more than girls	50.0	50.0	52
Boys less than girls	58.8	41.2	34
χ^2	p=.579		
Total (Patro women)	**50.9**	**49.1**	

(n-denotes to number of Patro women)

4.5.2 Utilization of Place of Service Center for Postnatal Care

Table: 22 exhibits the percentage distribution of women by place of postnatal care services. The Patro women reported to have visited different types of service centers from where they received antenatal care services. Public sector includes Family Welfare Center, and EPI center, while private sector includes private doctors and pharmacies.

Data in table 25 show greater utilization of both public and private sector for postnatal care by Patro women compared to their counterparts national women and women in Sylhet division. Also to be noted that Patro women utilized both public and private sector, while their counterparts in Sylhet division and national women utilized only public sector for postnatal care services. Also utilization of postnatal services is greater among Patro women compared to their national and Sylhet based counterparts.

Table: 22 Percentage distribution of Patro women, women of Sylhet division and national women by place of utilization of service center.

Place of PNC	National level*(n=17149)	Sylhet *(n=1328)	Patro community(n=108)
Public sector	32.1	26.2	65.4
Private sector	–**	–**	34.6
Other Sector	67.9	73.8	--**

*BMMS Report, 2010; **Not Available

4.5.3 Type of Postnatal Service Received by Patro Women.

Table: 23 illustrates distribution of various types of postnatal services received by Patro women, such as advice for breast feeding, measurement of weight of the baby, vaccination of the baby, medicine supply for diseases and advice about contraceptive use which they received from the service centers.

Table: 23 Percentage distribution of Patro women by different types of services received after delivery.

Type of Services	Percentage*	Number of Patro women (n=56)
Advice Breast Feeding	57.1	32
Monitory Weight	0.0	0.0
Vaccination of the Baby	82.1	46
Received Medicine for Disease	35.7	20
Received Advice about Contraception	10.7	6.0

* Total percentage may exceed 100% because of multiple responses.

Table shows that more than eighty percent (82.1%) Patro women who visited service center after delivery received advice for vaccination of their babies, while none received any advice on monitory weight of the baby. More than half of the Patro women (57.1%) received advice for breast feeding, while 35.7 percent received medicine for various diseases. Only 10.7 percent of Patro women received advice on contraceptive use after delivery.

4.5.4 Reasons for Not Seeking Postnatal Care

Table 24 illustrates the percentage distribution of women who have mentioned specific reasons why they did not seek any postnatal care during their last pregnancy. The study found that about 49.1 percent of Patro women mentioned that they did not seek postnatal care services after their last child birth and they mentioned some specific reasons for not seeking the postnatal care. About 17.6% Patro women who did not seek postnatal care reported that they did not need any postnatal service after their last child birth; in contrast the percentage is higher both in national level (55.9%) and Sylhet (62.4%) (NIPORT, 2003). About 13.7 percent Patro women mentioned that the postnatal care services were not beneficial for them. However, the similar view was not expressed by their counterparts at national and Sylhet division.

Table: 24 Percentage distribution of women mentioning specific reasons why they did not seek postnatal care after delivery compared to national & regional level data.

Causes for not taking post natal care	National level* (n=33150)	Sylhet*(n=2128)	Patro women(n=56)
Not Needed	55.9	62.4	17.6
Not Beneficial	–	–	13.7
Expensive	22.2	34.3	56.9
Service Center in a Long Distance	–	–	39.2
Did not know Service was Needed	18.5	3.7	74.5
Communication Problem	5.2	4.0	3.9
Family Did not allow	4.7	3.9	0
Religious Reason	–	–	0

* BMMS Report, 2001,
Note: Percentage may exceed 100% because of multiple responses.

Regarding this reason one Patro woman mentioned,

"After my first child birth I went to the vaccination center (EPI center). The service provider gave vaccination to my baby, but after getting vaccination my baby became very sick and later on my baby became dumb. That's why I never go to the service center again after my delivery. I think this is not beneficial."

Most starking finding (Table: 24) was that a large proportion of the Patro women (74.5%) did not know that post natal service was needed after delivery, while only 3.7% and 18.5% women in Sylhet division and in women at national level respectively reported this reason for not seek postnatal care after delivery. More than half of the Patro women who did not seek postnatal care services reported that they did not visit to the service center after delivery because it is expensive (56.9%), while the percentage was lower among the women (34.3%) in Sylhet division and as well as in national level (22.2%).

There is another finding that, as most of the Patro villages are located in the remote area so that the Patro women (39.2%) reported that the service center was too far from their house, while this was not reported by women at national level and Sylhet region. Only 3.9 percent Patro women mentioned that they faced some communication problem to reach postnatal care services, while

the trend is similar among the women in Sylhet and national level. The Patro women mentioned an interesting information that they did not have any restriction from family and religion regarding postnatal care seeking behavior after delivery while, there were a tiny percentage of women in national level (4.7%) and in Sylhet division (3.9%) reported that they did not get permission from family to seek postnatal care (Table: 24).

Data show no significant relationship with socio-economic variables of Patro women and the reasons behind not to visit service centers after delivery and no consistent pattern of relationship appeared between post natal care and the socio-economic variables.

4.5.5 Unique Traditional Child Birth Practice Among Patro Women

Finally, before we complete the analysis of the ANC, PNC and delivery practice and care of the Bangladeshi women especially the Patro women it is interesting to narrate a few unique child birth practices that exists among Patro women that has been revealed through an in-depth interview with a Patro woman and which might have impact on the health of Patro child and mother

- After child birth the family members of the child gives shower to the new-born baby and the mother.
- After delivery Patro women are provided only fried salt and warm water with rice for three days.
- A peculiar faith exists in the society that mothers are not allowed to take protein food till one year after the child birth with the belief that taking protein will adversely affect baby's health.
- Another belief is that, the mother cannot take supper at night; only breakfast and lunch till twenty two days from the delivery date , with a believe that it reduces the mother's post-partum hemorrhage and infections.
- Patro mother begins to feed supplementary food to baby girl after the 7th month and to baby boy after the 9th month along with breast feeding. This is a conventional practice among the Patro community.

Chapter Five

Results of the Multivariate Analysis of Prenatal and Post Natal Care of the Patro Women.

5.1 Introduction

Bivariate distribution of the relationship between independent (i.e. antenatal care and postnatal care of the Patro women) and dependent variables (biosocial, socio-cultural, and economic factors) failed to assess the relative net effect of each of the independent variables on dependent variable. This is done here using a binary logistic regression model and findings are presented in Table 25 and Table 26 respectively.

In the logistic regression, the two dependent variables were used in the analyses which are 'antenatal care visit' (antenatal care visit Yes=1, No = 0) and 'postnatal care visit' of Patro women' (post natal care visit Yes=1, No = 0). The independent variables included in the regression were women's age, number of living children, proportion of male and female children, women's education and occupation, husband' education and occupation. But unknown cases have been excluded from the analyses.

5.2 Antenatal Care

Result of the multivariate analysis shows that the age of women has negative relationship with antenatal care visit especially age group 30 and above years. The coefficients (β= -2.276) for age 30 years and above indicates that the probability of not going for antenatal visit by this group was 90 percent. This finding is statistically significant (β-2.276) at .10 level. Education of respondent and husband's education show rather unexpected results that education has inverse relationship with antenatal care visit. In other words, women and their husbands with primary and higher education are found to be less likely to visit service center for antenatal care. This finding is also statistically significant (β -1.085 and -1.068 at .10 level respectively).

Table: 25 Logistic regression estimates of the effect of demographic and socio- economic characteristics on antenatal care visit among Patro women

Variables	Co-efficients	Exp(B)
Age of Respondent		
≤ 20®		
21-29	0.655	1.925
30+	-2.276*	0.103
Education of Respondent		
Illiterate®		
Primary & secondary	-1.085*	0.338
Husband's Education		
Illiterate®		
Primary & secondary	-1.068*	0.344
Husband's Occupation		
Day labour	-0.631	0.532
Business & Service®		
Total Living Children		
1-2 Children®		
More than two Children	-2.142***	0.117
Boys/Girls preference		
Boys & girls equal®		
Boys more than girls	0.546	1.726
Boys less than girls	1.547**	4.699
Constant	1.091	2.976

R= Reference categories; Level of significance: p≤0.01=***, p≤0.05=** & ≤0.10=*

However, occupation of husbands has not shown a significant predictor for antenatal care visit of the Patro women. Patro women with more than two children were significantly less likely to seek antenatal care during pregnancy than those who had less than three children. As expected in terms of preference of either son or daughter, antenatal care visit of the Patro women increases significantly if the women have less number of sons than daughters. The coefficients (β =1.547) of having less sons than daughter increases antenatal care visit 4.7 times (Odds=4.699) than their reference group of having equal number of sons and daughters. Women having less number of son and daughters are 4.7 time more likely to visit health care center for ANC than women having equal number of boys and girls which found to be statistically significant at .05 level.

5.3 Postnatal Care

A logistic regression model was also fitted to explore the determinants of postnatal care visit among Patro women (Table 28). Here postnatal care visit is as the dependent variable and the same independent variables that were used in the ANC analysis are included in this model.

Results of the multivariate analyses show that the age of Patro women has positive relationship with postnatal care visit. It increased with increasing age but only having age 20-29 has a significant positive relationship with post natal care visit. The coefficients (β= 1.198) for age 20-29 indicates that probability to go for antenatal care visit by this group (20-29 years) was 3 times more likely than the young women of age less than 20 years. The second significant factor that influences post natal care visit of the Patro women is their level of education. The likelihood of visiting a health center for postnatal care among Patro women rises with their level of education and which is highest at secondary level and above.

The likelihood of post natal care visit will increase 23 times more among Patro woman who have 6 or more years of schooling than those who have no schooling and this is found to be significant at .05 level. The likelihood of post natal visit of the Patro women having primary education is not significantly different from their reference group of women having no education. But the education of husband especially with primary education show rather unexpected result. It is significantly less likely that woman whose husband has primary education will go for postnatal care visit. The coefficients (β= -0.905) for this group that having a husband with primary education reduces the probability of going to postnatal visit by 60 percent.

Another significant predictor that comes out is the number of total living children. The coefficients of the number of total living children (β= -1.172) shows an inverse relationship between number of living children and post natal care visit of the Patro women. The coefficients -1.172 indicates that it is less likely for the patro women to go for post natal care visit with the increasing number living children. However none of the other variables, for example, preference of either son or daughter, or occupation shown to have significant relationship with the postnatal care visit of the Patro women after her last delivery (till 90 days) in the last three years preceding the study.

Table: 26 Logistic regression estimates of the effect of demographic and socio-economic Characteristics on postnatal care visit among Patro women.

newly modified

Variable	Co-efficients	Exp(B)
Age of Respondent		
≤ 20 ®		
21-29	1.198*	3.314
30+	0.808	2.243
Education of Respondent		
Illiterate®		
Primary	0.012	1.012
Secondary	3.157**	23.498
Husband's Education		
Illiterate®		
Primary	-0.905*	0.404
Secondary	-0.196	0.822
Husband's Occupation		
Day labor	0.963	2.618
Business & Service®		
Total Living Children		
1-2 Children (R)		
More than two Children	-1.172**	0.31
Boy/Girl preference		
Boys & girls equal	-0.713	0.49
Boys more than girls	-0.297	0.743
Boys less than girls®		
Constant	-0.531	0.588

R= Reference Categories; Level of Significance: p<0.01=***, p<0.05=** & <0.10=*

Chapter Six

Discussion of the Research Results

The present study aimed to explore the utilization of maternal health care among Patro women and how it is related to socio-economic and cultural factors of the Patro community. In this study, antenatal and postnatal care seeking behavior of Patro women has been operationalized in terms of access to health care services, visits during pregnancy, delivery and postnatal care. The study also explore the reasons behind not visit to the service center during antenatal and postnatal period and complications during pregnancy, delivery and after delivery. A mixed research method approach, combining both qualitative and quantitative forms has been used in this study. A total of 108 currently married women having at least one child aged less than three years were interviewed by chain-referral system from six different villages of Sylhet district where the Patro community resides. Finally, the collected data has been analyzed using uni-variate, bi-variate and multivariate technique. In addition a comparative analysis of utilization of antenatal and postnatal care, and delivery care at national, regional level and Patro community were also assessed.

The study revealed that the access to health care services was poor among the Patro community. When asked about the existence of maternal health care service center, half of the Patro women showing their ignorance and said that there were no service center for maternal health care services in their local area while, other half reported that they just have EPI center in their local area.

Historically, the socio economic condition of the Patro community is very poor. Both micro and macro level factors were responsible for their low access to health care services. Analysis shows that most of the Patro husband (82.2%) is day labor where only 26.4% and 13.4% in regional and national level respectively. Hundred percent of the Patro women are engaged in house work. The educational attainment of Patro women (51.9%) is lower than the regional (54.2%) and national level (65.8%) and the level of secondary education among Patro women is less than Sylhet and much less than national level. On the other hand, the educational attainment of Patro women's husband (67.6%) is nearly similar to regional level (65.5%) and national level (69.3%)

(NIPORT, 2007) but the level of secondary education among Patro women's husband is less than Sylhet and much less than national level. This types of low income occupation and poor education of Patro women and her husband, may lead to poor access to ANC and PNC services. This finding is very much consistent with other studies conducted in other societies and countries maternal health care services (Diop et al., 1995; Hodgkin, 1996; Filippi et al., 2006).

Lack of road infrastructure was an important structural predictor of low access to health care services. Patro villages are isolated and the road infrastructure is very poor. Most of the villages don't have minimum transportation facilities. They usually have to walk a long distance of muddy road to reach home. The study revealed that more than half of the Patro women (56.9%) visited to the service center for all types of maternal health care (EPI center) on foot. This findings of the lack of access to health care center due to poor infrastructure is common in other hilly indigenous community areas too. For example, in Nepal about 38 percent of the Hill Adivashi and Janajati population have no access to a health post within an hour's walking distance. This kind of poor accessibility of health care facilities results in different kind of maternal and child health problems in indigenous populations, (Subba et al., 2009). That means geographic proximity and road communication system were influencing the access to health care services in this community.

In terms of the coverage of antenatal care the Sylhet region (NIPORT, 2010, 2011) as well as the Patro community in Sylhet show low ANC coverage. Antenatal care from a medically trained provider is important to monitor the status of a pregnancy and identify the complications associated with the pregnancy. To be most effective, there should be regular antenatal care throughout pregnancy (NIPORT, 2011) but antenatal care visits among Patro women (37.0%) was lower than regional level Sylhet (51.8%) and much lower than the national level (67.3%) (Table 9) of which only 10 per cent of Patro women visited four times during pregnancy or antenatal period. This finding is very much similar to a recent study in India where found that antenatal care visit was almost three times lower among the indigenous women of Jharkhand than the national figure (Agrawal, 2009).

The bi-variate and multi-variate analysis of the biosocial and economic factors and its association with antenatal coverage found that age and number of living children of Patro women has significant correlations with antenatal care visit. The BDHS report (2011) and BMMS report (2010) shown that the likelihood of receiving antenatal care declines rapidly with increasing age, and number of living children too. Antenatal care visit is extremely low among Patro women (4.2%) whose age belongs to 30 years and above. In addition, Patro women who had more than six children did not visit (0%) to the service center for antenatal care service at all in contrast to national level where 35.8% of women with six or more children visit service center for ANC. (NIPORT, 2012). The percentage is also low among the Patro women (20%) who had 3 to 5 children compare to national level (50.7% with 4-5 children) (NIPORT, 2012). Although the trend of age and living children with ANC coverage is same between national and present data but the percentage of Patro women ANC visit is much lower than national level. Though education of the respondent and their husband show rather a confusing relationship with antenatal care visits but the husband's occupation had positive association with antenatal care visits. Antenatal care visits were high among Patro women (57.9%) whose husbands had business and private service as compared to agriculture and day laborer.

However, Patro women who did not visit health care center for ANC mentioned some specific reasons for not seeking antenatal care. More than one-third of the Patro women (44.1%) mentioned that they did not seek ANC as because it is expensive. Some Patro women reported that they are less likely to seek ANC because of long distance to service center. The most depressing reason found in the analysis is that a large proportion of Patro women (79.4%) did not know ANC service was needed during pregnancy.

In terms of antenatal care services, those who visit to the health care center mostly received vaccination, supply of iron tablet, advice for breast feeding and nutrition education. The study also revealed that common problems the Patro women have faced during their pregnancy were headache/high blood pressure, palpitation, pre-eclampsia/edema, abdominal pain, excess vomiting tendency and physical weakness. A study in Malawi found that lack of antenatal care was one of the important risk factors of maternal and prenatal morbidity (Lule and Ssembatya, 1995).

Delivery in the health facilities during delivery may reduce the risk of complications and infections and thus maternal deaths or serious illness to the mother (NIPORT, 2007). In Patro society, almost all deliveries (95.4%) were taken place at their own house assisted by untrained tradition birth attendant (TBA). A study in India also demonstrated that more than 90% of deliveries among indigenous people were conducted at home attended by elderly ladies of the household that produced an increased vulnerability to various infections (Basu, 2000). A study in rural Bangladesh showed that pelvic pain, cough or fever for more than three days, headache and weight loss were less frequent among women whose deliveries were assisted by trained personnel (Khanam and Akanda, 2007). The present study found that almost all babies was delivered normally and more than two-third of the Patro women mentioned that the delivery in the hospital was expensive and thus the Patro women are less supposed to go to the delivery center for delivery. Excessive hemorrhage, convulsion and prolonged labor were the major complications Patro women face during delivery that might lead to some other serious complications.

Postnatal care visit is an essential element of safe motherhood. Various types of complications arise after delivery increase the risk of death for both mother and child. A large proportion of maternal and neonatal deaths occur during the 24 hours following delivery (NIPORT, 2011, 2012). In addition, the first two days following delivery are critical for monitoring complications for both mothers and the newborns. The study shows that Patro women are more likely to go for postnatal care compare to regional and national level. The percentage of getting overall postnatal checkup was high among Patro women (50.9%) than national (30.1%) and regional level (25.7%) but receiving postnatal checkup within two days after delivery was extremely low among the Patro women (only 1.9%). The study also found that higher percentage of Patro women (37.9%) seeks PNC within 6 weeks compare to regional and national level.

The present study found that all of the Patro women reported that they did not go anywhere for the baby's health checkup within one week after delivery. Postnatal care was analyzed by bio-social and economic factors. The study found that there were no significant affect of bio-social variables on postnatal care except education of Patro women and number of living children. High

education of women significantly increases the postnatal care seeking behavior of the Patro women. More than ninety percent of the Patro women (91.7%) who have secondary level of education reported that they visited to the service center for postnatal care. The number of living children has an inverse relationship with postnatal care that is the possibility of postnatal care increase with increasing number of children.

Patro women who did not visit for PNC service mentioned some specific reasons for not seeking PNC. Overall half of the Patro women did not visit PNC service center. Among them more than half of the Patro women (56.9%) mentioned that they did not seek any PNC because of high cost of service. Patro villages are located in remote area for which more than one-third of the Patro women (39.2%) reported that they are less likely to seek PNC because of the distance of service center. The most depressing reason found in the analysis is that a large proportion of Patro women did not know PNC service was essential, which might happen due to the lack of awareness and information, low education and remote location.

From the above discussion, it is evident that the socio-economic situation of the Patro community is worse than national and Sylhet regional level. The use of antenatal care and the care during delivery of the Patro community is much lower than national and regional level. In this study individual interview is mainly used as collected data. But the study make more effective observation method probe for detailed information on Patro women's antenatal and postnatal health care situation during the in-depth interview. The use of maternal health care of Patro mothers is poor due to the limited access to health care services, lack of awareness and information, poor socio-economic condition and cultural practices.

Chapter Seven

7.1 Conclusion

The conclusion of the study sum up to that the socio-economic condition of the Patro community is poor. In fact, the situation is much worse than the situation of Sylhet and national level. The use of antenatal care and the care during delivery of the Patro community is the worse than national and regional level as well. The present study shows that a little more than one-third of the Patro women look for ANC services, but among them fifty percent of women just go to the nearest EPI center and fifty percent of women said there were no service centers. From EPI center they receive vaccination, advice of breast feeding and nutrition education service. They live in isolated geographic locations where almost all villages are deprived of roads and communication facilities, market facilities, education facilities and heath care facilities. Regarding complications, major problems Patro women face during their pregnancy are high blood pressure, palpitation, pre-eclampsia, abdominal pain, excess vomiting.

Most of the delivery is carried out in the respondent's own house and assisted by "Dai" (untrained traditional birth attendant) who have no formal training or education. They also depend on local remedy particularly on untrained traditional birth attendant. During the delivery the main complications Patro mothers usually encounter were excessive hemorrhage, convulsions, prolonged labour, hypertension, legs problems and physical weakness.

However, the use of postnatal care immediately after delivery although low increase significantly after two days among them compare to the national and regional level. The factors associated with poor antenatal and postnatal cares were women's age, economic condition like education and occupation, ignorance of ANC & PNC needs, distance of the service centers, lack of awareness and information and cultural practices.

7.2 Recommendation

According to the findings of the study the Patro women are economically deprived and they lived in inaccessible area where maternal health services is unavailable. Their educational attainment is also very less. Because of remote area, the GO and NGOs maternal health services are not very available in those area. For further improvement of ANC, PNC and delivery care, some expectations or suggestions from the respondents or the participants of the study may be provided. The recommendations are as follows:-

- It is very important to increase the number of maternal and child health (MCH) providers who provide maternal health services as well as maternal education to the pregnant women door to door.
- It is necessary to establish more maternal health service centers in the area.
- *As the Patro women are poor, they need free medicine and treatment service from* both GOs and NGOs service centers.
- Sometimes the pregnant mother do not find all the maternal services from the service *center in appropriate time, so they want all types of maternal health services in* accurate time in the accurate service centers.
- *According to the findings of the study most of the respondent recommended that they need more qualified doctors' particularly female doctors in their area.*
- For the improvement of maternal health care condition the government should establish a permanent maternal health service center or clinic in the village.
- Coordination among the NGOs should be increased. Sometimes different NGOs work in the same geographical area and give same services. So, the coordination among the NGOs should be increased. Side by side number of NGOs should be increased in those areas who work for maternal health service.

- There is no available qualified government doctor in this area, so the people have to go to town for health services which is very expensive. That's why the Patro people need qualified government doctor in their area or village.

- There is no EOC (Emergency Obstetric Care) service as well as no caesarian delivery center in those areas which is very necessary to reduce maternal morbidity and mortality.
- It would be a great effort if any government female doctor came to the place of EPI vaccination center every after 1 or 2 month for providing treatment services and maternal health education to the pregnant women.
- According to the findings of the study most of the delivery took place in their own house. So, the Patro mothers want a government authorized delivery center for safe delivery.
- Most of the time the young married Patro women become pregnant because of the lack of reproductive health knowledge. That's why GOs or NGOs MCH service providers should go door to door and provide reproductive health education as well as family planning services.
- Expanding women's education is urgent for protecting women's reproductive health and rights. By creating awareness of sexual health and responsible behavior in the younger generation should be ensured.

Patro community are very poor economically they live in inaccessible remote and isolated areas surrounded by hills and tea gardens. There is no maternal health service center except EPI center in those areas. Thus, the government should take initiative in collaboration with GO and NGOs to established maternal health centers to reduce the maternal mortality and morbidity among Patro women.

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Appendix I

Interview Questionnaire

On

Antenatal and Postnatal Health Seeking Behavior of Indigenous Women in the Reproductive Period: A Study on the Patro Community in Sylhet.

(This section will be used for married women aged 15-49 years)

1. Socioeconomic and Demographic Characteristics:

1.1 Identification of Respondents

- Serial Number.....
- Tribe. 'Name.....
- Village.....Union.....
- Thana.....District.....

1.2 How old are you? Please Specify in Years.....

1.3 Have you ever attended school? Yes No

If yes, how many years of schooling have you completed?
Please Specify in Years.....

1.4 What is your occupation?

- Agriculture
- Business
- Service
- Housewife
- Others. (Please Specify).....

1.5 Has your husband ever attended school? Yes No

1.6 If yes, how many years of schooling has your husband completed?
Please Specify in Years.....

1.7 What is the occupation of your husband?

- Agriculture
- Business
- Service
- Others (Please Specify).....

2. Antenatal Care (During Pregnancy)

2.1 How many times were you pregnant during your entire span of reproductive period?
.....

2.2 Was there any pregnancy aborted?
(If yes, How many? Write in numbers)
□ Yes.
.....
□ No.

2.3 How many pregnancies were ended with successful delivery? .....

2.4 Did you make visit anywhere during the last pregnancy to seek antenatal care?
(If no, please go to the Q2.9)
□ Yes. (Mention the year of your last pregnancy-------)- □ No.

2.5 If yes, where did you visit during the last pregnancy?

- Upazila Health Complex (UHC).
- Family Welfare Center (FWC).
- Satellite Clinic (SC).
- Private Doctor
- EPI Center
- Local Pharmacy
- No Service center

2.6 When did you make first visit of that center?

- Within 3 months of pregnancy.
- From 4-6 months of pregnancy.
- From 7-9 months of pregnancy.

2.7 How many times did you visit during the last pregnancy?

Please specify in no.....

2.8 What are the services have been given to you during last pregnancy?

- Vaccination of pregnant mothers.
- Measuring weight/height of pregnant mother.
- Iron tablet supply.
- Advice for breast feeding.
- Health education.
- Nutrition education.
- Others (Please specify).....

2.9 If answer to 2.6 is no, why did not you visit that center during pregnancy?

- Not needed.
- Not beneficial.
- Expensive.
- Too far.

- Did not know service was needed.
- Family did not allow.
- Religious reasons.
- Others (Please specify).....

2.10 What are the complications you faced during last pregnancy?

- Did not suffer from any complication.
- Cough/Fever.
- Headache/blurry vision/H. blood pressure.
- Palpitation.
- Hemorrhage.
- Pre-eclampsia/Oedema.
- Abdominal pain.
- Excessive Vomiting.
- Septic Abortion.–
- Others (Please specify).....

3. During Delivery

3.1 How many children were born to you alive during your entire span of reproductive period?

Boys.....
Girls.....

3.2 Of the number of children born alive how many died later?

Boys---------- Girls----------

3.3 What is the age of your last child?

Year(s)..... Months.....

3.4 What was the weight of your last child at the moment of birth?

☐ Please write in Kg..... ☐ Not recorded

3.5 Where was your last child born?

- Own house.
- Private hospital/clinic.
- Government hospital and health care center (MCH Center).
- NGO health care center
- Others (Please Specify).....

3.6 Who assisted you in delivery of the last child?

- Dai/unskilled birth attendant.
- Relatives/neighbors.
- Village doctor.

- Nurse/health worker.
- Medical (MBBS) doctor.
- Others (Please Specify).....

3.7 Was your last delivery normal or by caesarean section?
□ Normal. □ Caesarean section.

3.8 What was the delivery cost for your last delivery?
- ✓ For delivery without complications Tk.....
- ✓ For delivery with complications Tk.....

3.9 Who did pay your last delivery cost?
- Respondent.
- Respondent + loan
- Husband
- Husband + loan (Please Specify).....

3.10 What are the complications you faced with during delivery?
- Did not suffer from any complication.
- Excessive hemorrhage.
- Convulsions/eclampsia.
- Prolonged labor.
- Obstructed labor.
- Premature rupture of membrane.
- Hands/feet came first.
- Others (Please specify).....

4. Postnatal Care (After Delivery)

4.1 Did you visit anywhere after the last child was born?
(If no; please go to the Q 3.5)
□ Yes. □ No.

4.2 If yes, when did you visit after the last child was born?
- Within 2 days.
- 3-7 days after delivery.
- 8-41 days after delivery.
- 41-90 days after delivery.

4.3 Where did you visit after delivery?
- Upazila Health Complex (UHC).
- Family Welfare Center (FWC).
- Satellite Clinic (SC).
- Private Doctor
- EPI Center
- Local Pharmacy

- No Service center

4.4 What services were provided to you after delivery?

- Gave advice to breast feed the baby.
- Took weight of the baby.
- Vaccination the baby.
- Gave medicine for disease.
- Gave advice about contraception.
- Others (Please specify).....

4.5 How many times did the baby get a health check in the first week after birth?

Times.....

4.6 If answer to 3.1 is no, why did not you visit after delivery?

- Not needed.
- Not beneficial.
- Expensive.
- Too far.
- Did not know service was needed.
- Family did not allow
- Religious reasons.
- Others (Please specify).....

4.7 What are the complications occurred after delivery?

- Did not suffer from any complication.
- Perineal Tears.
- Severe Anemia.
- Hypertension
- Leg Problems.
- Postpartum Sepsis/Infections.
- Others (Please specify).....

5. Health Care Seeking Behavior

5.1 Where are the MHC services being provided in your locality?

- Upazila Health Complex (UHC).
- Family Welfare Center (FWC).
- Satellite Clinic (SC).
- Private Doctor
- EPI Center
- Local Pharmacy
- No Service center

5.2 How far is the service center from your home? Please write in Miles.....

5.3 Did you ever make visit to the service center?
(If no; please go to the Q 4.7)
□ Yes. □ No.

5.4 If yes, how did you go to that service center from your home?

- On foot.
- Rickshaw/Van.
- Bus.
- Boat.
- Others (Please Specify).....

5.5 Who did accompany you to go to the service center?

- Alone (Nobody accompany).
- Husband.
- Relatives/Neighbors

5.6 Where did you get the information regarding maternal health services?

- Did not get information.
- MCH providers.
- Mass media.(Radio/TV/Newspaper)
- Relatives.
- Neighbor.
- Friends.
- Others (Please specify).....

5.7 Where did you go first to seek treatment?

- Did not seek treatment.
- GO service center.
- NGO service center.
- Traditional village healers/Priest.
- Others (Please specify).....

5.8 Who took decisions for treatment seeking?

- Respondent.
- Husband & Parents in law.
- Parents.
- Other family members (Please specify).....

5.9 Do you think that women should have a medical checkup when they are pregnant even though they are not sick?
□ Yes. □ No. □ Do not know.

Express Opinion:.....

5.10 Do you think safe delivery will be possible by taking MCH services?

Express opinion:.....

5.11 Do you maintain the advices given by the Family Welfare Visitors/Medical Assistants?

- Maintain.
- Try to maintain.
- Don't maintain.

5.12 What is your opinion/suggestion to improve the maternal health condition of Patro Women?

Appendix-II

Some pictures from the Field Work