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MATERNAL HEALTH AND CARE-SEEKING BEHAVIOR IN BANGLADESH

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ABSTRACT

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This study aims to explore the health care seeking behavior of mother in Bangladesh. A household survey was conducted for data collection in Dhamoirhat Upazila from February 2014 to April 2014. For this study, a total 1,200 households were selected as a sample through a two-stage cluster sampling method. As quantitative data collection methods, the survey and in-depth interviews were used on the basis of the semi-structured and open-ended questionnaire. In addition, caregiver surveys were conducted with the help of some selected questions related to child health. Furthermore, Focus Group Discussion (FGD) and case studies were conducted. The findings revealed that out of total 112 pregnant mothers, 71(63.4%) mother delivered their child at home followed by 8.9% mother delivered their children in another home, child delivered in the government hospital is 13.4%, in the private hospital is 4.5%, and the private clinic is 8.0%. Besides, 77.7% mothers reported that they had ANC check-up during last pregnancy. It is also evident that 54.5% mothers delivered their child with the help of MBBS doctor, by nurse/midwife are 44.6%, by the traditional birth attendant (TBA) is 4.5% and by relative/friend is 7.1%. As well, 94.7% of infants aged of 6-23 months were given breast milk within 24 hours and the women with a child under 2 years who put the infant to the breast within one hour of birth are 93.6%. It is also found that 30.4% mother having children aged of 0-23 months reported that they had at least 3 counseling contacts with the pregnant women support groups. Vitamin A capsule given to the child within 6 weeks of last childbirth by 50.0% mothers having children under the age of 2 years. The results showed that a significant number of children under the age of 5 are still found malnourished with stunting and under weight. In addition, necessary services like ANC, safe delivery, PNC facilities are not at satisfactory level. Therefore, it is necessary to extend the health and nutrition program further particularly for the pregnant women and children. Essential service packages for pregnant women should further extend. In addition, more emphasize should be given on recruitment and training of MBBS doctors, nurses, and mid wives to improve the health services.

Key words: safe motherhood, child mortality, health seeking behavior

INTRODUCTION

Maternal and child health is one of the vital aspects of primary health care. At the same time, as a significant component of women reproductive health, the most common programs of safe motherhood are antenatal care and counseling; maternal nutritional development; birth preparedness, and family planning; skilled assistance during child birth; care of obstetric complications; postpartum care; right information and services, and community education on safe motherhood. The government of Bangladesh has developed National Health to ensure the institutional delivery of the child at the local level by the skilled birth attendants. The government has also formulated the National Reproductive Health Strategy and the basic areas of these strategies include; safe motherhood, family planning, menstrual regulation, cares for post-abortion complications and management of Sexually Transmitted Diseases (STI)/Reproductive Tract Infections (RTI).

At the moment, exemplary reduction of maternal and neonatal mortality has been achieved in Bangladesh in the proper implementation and monitoring of the Health, Nutrition and Population Sector Program and formulation of other national policies and programs such as the expansion of Comprehensive Emergency Obstetric Care (CEmOC) services; Community-based Skilled Birth Attendant (CSBA) training; increased coverage of Family Planning (FP); safe Menstrual Regulation(MR) services; piloting of maternal voucher schemes; expansion of private sector services, and expansion of female education. Although the progress as regards to the infant and child health has been observed through a number of indicators over the years, a high number of neonatal deaths are becoming a public concern in developing countries, including Bangladesh (Syed and Asiruddin, 2006). Moreover, neonatal mortality still comprises 57% of age under 5 and 70% of the infant deaths. The incidence of adolescent births remains high, with 33% of the women beginning to bear the child while still in their teens and is therefore at high risk of complications and death. Forty six percent of the non-pregnant and 39% of the pregnant women is reported to suffer from anemia (UNICEF 2009). In the maternal health sector, skilled attendance during pregnancy, childbirth, the post-natal period and provisions of comprehensive emergency obstetric care services remain critical.

Alternatively, millions of women in developing countries experience life-threatening and other serious health problems related to pregnancy or child birth. It is found that complications of pregnancy and childbirth cause more deaths and disability than any other reproductive health problems (EC/UNFPA 2000). It is also seen that only one in three women seeks treatment from a qualified health provider (Koenig *et al.* 2007). Mainly malnutrition, insufficient health care, and frequent pregnancies give the women high maternal mortality. Thus, food habits and health consciousness are important indicators of pregnant mother's care-seeking behaviors. Shannon *et al.* (2008) report that although most of the women have the awareness of dietary requirements, half

of the women report unchanged or reduced food intake during pregnancy. As a result of the traditional beliefs and customs, many women maintained food related taboos and consequently, they face problems linked to pregnancy and childbirth. Islam *et al.* (2006) discover a diversity of difficulties related to maternal morbidity. He found that maternal mortality caused by the place of delivery. In Bangladesh, most of the deliveries take place at either woman's husband's house or at the parents' house and most of these deliveries are assisted by untrained birth attendants. High rates of maternal morbidity and mortality continue to be important challenges for Bangladesh health systems as three million mothers become pregnant each year in Bangladesh, out of which 600,000 are expected to develop complications. Similarly, despite the expansion of emergency obstetric care (EmOC) services at the district and Upazila level of Bangladesh, child institutional deliveries remain quite low. Additionally, many empirical studies of preventive and curative services have often found that the use of health services is related to the availability, quality and cost of services, as well as social structure, health beliefs and personal characteristics of the users (Andersen and Newman, 1973; Kroeger 1983; Becker *et al.* 1993 and Sarin 1997). Generally, the common factors like social, cultural and economic make the obstacle receiving health care services from the health care organization in Bangladesh. As regards to safe motherhood, the percentage of women age of 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth at least once by skilled health personnel are 58.7 and, at least, four times by any health provider is 24.7. Alternatively, the percentage of women age of 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth is 38.0; the women age of 15-49 years were attended by skilled health personnel during their most recent live birth is 43.5; the women age of 15-49 years whose most recent live birth was delivered in a health facility is 31.0 and the women age of 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section is 19.1 (BBS 2012-13: Multiple Indicator Cluster Survey). Since the maternal and newborn health care are interrelated so the health care services both of them need to be delivered simultaneously covering pregnancy, childbirth and the immediate postpartum periods. Simultaneously, the services for them need to be provided by skilled providers along with quick and proper management of any difficulties. In this paper, we, thus, aimed to explore the health care seeking behavior of the mother mainly the places from where mother received health services for delivery, antenatal care (ANC), prenatal care (PNC) and who were the health service providers for performing the safe motherhood issues.

METHODOLOGY

The study was carried out in Dhamoirhat Upazila, from the period of February 2014 to April 2014. The survey encompassed 30 Villages including 6 wards in 5unions. The total population is nearly 1,84,778 and the total number of households is 49,046 of where the male is 93,563 (BBS 2011). The total beneficiaries under the programs were 23,676, of where the male is 11,316. In this Upazila, the main ethnic communities are Santals, Oraon, Mundari, Mahali, Pahan, Singh, Mahato, Turi, and Mali. It is notable that 3% of the total population in this area is ethnic communities (World Vision Bangladesh, 2012: Phase Evaluation report of Dhamoirhat Area Development Program). The target participants for this study were the pregnant and lactating women with children under the age of 2 years, ultra-poor families, Community Based Organizations (CBOs) members, Registered Children and their families, ethnic families, teachers, youth groups, entrepreneur groups and Government and Non- government employers' groups. In addition, the program partners were the Department of Social Welfare, Dhamoirhat Upazila; Upazila Education Department (Primary and Secondary); Upazila women and child welfare department; Upazila Health Complex/Community Health Clinic; Water and Sanitation (WATSAN) committees; Child Forums; and some Non-Government Organizations like BRAC and CARITAS.

Sampling and data collection

Data was collected by the researcher under the program of "Baseline survey of Dhamoirhat Area Development Program of World Vision Bangladesh". At first, primary sampling units (mauza/village in rural areas and mahalla in the town areas) were drawn with the help of standard probability proportional sampling (PPS) methods. The sample households were selected through a two-stage cluster sampling method and out of 34,889 households; a sample size of 1,200 households was drawn. Firstly, 30 clusters were proportionally selected with the help of cluster sampling method. After that, the selected clusters were divided into different segments comprising 100-120 households. Finally, 40 households were interviewed from each selected cluster. To collect quantitative data, in-depth interviews along with caregiver surveys were used, depended on the semi-structured and open-ended questionnaire. For caregiver surveys, the main caregivers of children were interviewed and not necessarily the head of the family. Caregiver surveys were conducted on the basis of some selected questions on the various areas of child well-being. As well, to enrich the quantitative data, Focus Group Discussion (FGD) and Case study method were conducted. The participants for focus group discussions were the CBO members, registered children, the pregnant and lactating women with under 2 children, ultra poor households, and ethnic families to know their health care seeking behaviors. Each FGD were involved with 8-12 members. In addition, anthropometric measurement method was also used to measure the nutritional status of the children aged of 6-59 months in terms of stunting, wasting, and underweight. The collected data was analyzed through SPSS program.

RESULTS AND DISCUSSION

Demographic and socio-economic profile of the households

The study revealed that out of total 1,200 households, the percentage of ethnic communities was 22.7. The religious status of the household's showed that the percentage of Muslim is 69.8, Hindu is 14.3 and Christian is 15.3. The household structure explains that 90.5% households are headed by males. In the case of household composition, it is found that the majority of the households are composed of the members of either 03-04 or 05-06 which constitute 69.4% and 15.2%, respectively. The household member's constitute of 1-2 is only 13.8%. The average household size is 4. Results show that 17.0% households belong to the age category of 5-11 years of where households with sponsored children are 27.3% and the household with CBO members are 9.2%. Moreover, 49.1% households belong to the age category of 25-49 years. In the case of marital status, household member's age of 10 years and above, 28.7% of the male and 19.7% of the female were unmarried, while 70.0% male and 75.1% female were married and 0.8% male and 4.6% female were the widows. On the other hand, household female member's age of 10 to 17 years according to marital status shows that 4.2% is married. In addition, household male members' age of 10 to 20 years according to marital status revealed that 96.4% is unmarried; widow is 0.2% and divorced is 0.5%.

Education

Education is an important factor which helps women to acquire knowledge regarding health care seeking behavior for safe motherhood. In the study area, 97.3% children age of 6-11 years enrolled in the school of where the boys were 96.7% and the girls were 98.0%. Children age of 12-18 years found that overall 93.9% children enrolled in the school of where the boys were 92.6% and girls were 95.7%. Findings also show that overall 96.0% children age of 6-18 years enrolled in formal/structural learning education of where the boys were 94.7% and the girls were 97%. In the case of child school attendance, overall 92.7% children age of 6-18 years was attended school in last school day. In terms of primary level, it was found that overall 98.7% enrolled children were attended school yesterday/last school day and among the boys it was 96.3% and among the girls, it was 100%. In the case of the secondary school, overall 78.6% children were attended school in last school day of where the boys were 77.0% and the girls were 81.3%. It has also been revealed that in primary level 4.26% children dropped from school during the last/previous year, among the boys it was 4.07% and among the girls, it was 4.26%. The identified reason for dropout shows that children had to assist household chores, family business enterprise, and outside work. It is also found that 5.35% children dropped from secondary school last/previous year, among the boys it was 5.0% and among the girls, it was 5.49%. The reasons for drop out from secondary level identified that children had to assist household chores, assist family business enterprise, and others. It is also found that 66.67% children age of 3-5 years enrolled in Early Childhood Care and Development (ECCD) center for school readiness of where 71.43% were boys and 61.54% were the girls. Again, the data shows that 43.24% children age of 3-5 years could recite rhymes and 33.78% could read the alphabet.

Water and Sanitation

It was found that 99.6% households have access to safe drinking water and 69.2% households have access to hygienic latrines. It is also found that about 77.6% households wash hands with running water and soap after defecation, 54.1% wash hands with running water and soap before preparing food, 50.4% wash hands with running water and soap before feeding children and 71.7% wash hands with running water and soap after handling child's faces/cleaning baby's bottom. Furthermore, 37.4% caregivers with children 0-59 months, report that their child's latest stool was disposed of specific holes/ places. In this Upozila, the remarkable progress has made by the intervention of Water Sanitation and Hygiene (WASH) program of World Vision Bangladesh.

Breast Feeding

Proper breastfeeding promotes optimal growth and development of the infants. It is the perfect way of providing ideal food and the healthy growth and development of infants. Breastfeeding for the first few years of life protects children from infection and provides the best source of nutrients. It is found that, in addition to continued breastfeeding, consumption of appropriate, adequate and safe solid, semi-solid and soft foods from the age of 6 months onwards leads to better health and growth outcomes, with potential to reduce stunting during the first two years of life (Bhuta 2013). Proper nutrition for the mother is significantly associated with maternal mortality and morbidity and with increased probability of low birth weight, resulting in higher probability of neonatal deaths. In this study, a total of 25 children of age of 0-5 months were surveyed, among them 96.0% were given breast within one hour of birth, 92% of children were given exclusive breast milk during the 24 hours, 80.0% mother reported that they had given breast within 24 hours to their children, 68% mother replied that they still being breastfed. It has also been found that 32% mother had given plain water last day of data collection to their children followed by 8% mother had given infant formula to children, 16% mother had given tined powder or fresh animal milk, 4% mother had given juice, 8% mother had given soup, 4% mother had given vitamin/mineral supplement, and 8% mother had given semi-solid food to their children. Table1 also shows the feeding practices of children age of 0-23 months. In this study a total of 94 children of

age 0-23 months were surveyed, among them 93.0% were given breast within one hour of birth, 91.5% of children were given exclusive breast milk during the 24 hours. At the same time, 94.7% mother reported that they had given breast within 24 hours to their children, 81.9% mother replied that they still being breastfed, 60.6% mother reported that they had given plain water last day of data collection to their children, 12.8% opined that they had given infant formula to children, 19.1% mother replied that they had given tined powder or fresh animal milk to their children, 21.3% mother had given juice to their children, 17% mother had given soup to the children, 43.6% mother reported that they had given vitamin/mineral supplement, and 55.3% mother replied that they had given semi-solid food to their children. In addition, 21.3% mother reported that they had given 3 or more food items to their children and 8.5% children were given 4 or more food items during the last 24 hours.

Table 1. Percentage distribution of mother according to their response regarding feeding of children age of 0-23 months

Indicators	0-5 months	6-23 months
Have put the new born infant to the breast within one hour of birth	96.00%	93.60%
Has ever been breastfed	96.00%	94.70%
Did you exclusively feed breast milk for 24 hours to your child?	92.00%	91.50%
Did you feed the breast milk to your children within 24 hours?	80.00%	94.70%
Is still being breastfed?	68.00%	81.90%
Did drink plain water to the last day of interview during the day or night?	32.00%	60.60%
Did drink infant formula to the last day of interview, during the day or the night?	8.00%	12.80%
Did drink milk, such as tinned, powdered or fresh animal milk to the last day of interview, during the day or night?	16.00%	19.10%
Did drink juice or juice drinks to the last day of interview, during the day or night?	4.00%	21.30%
Did drink soup to the last day of interview, during the day or night?	8.00%	17.00%
Did drink or eat vitamin or mineral supplements to the last day of interview, during the day or night?	4.00%	43.60%
Did eat solid or semi-solid (soft, mushy) food to the last day of interview, during the day or night?	8.00%	55.30%
N	25	94

Child Diet Diversity

Dietary diversity is an important component of dietary quality: consumption of a higher number of food items and food groups is associated with improved nutritional adequacy of the diet (Hatloy *et al.* 1998; Torheim *et al.* 2004). Mainly diverse diets are key elements of optimal complementary feeding practices and are essential for children to meet their nutrient needs. A number of studies have shown that dietary diversity is positively associated with overall dietary quality, micronutrient intake of young children and household food security (Steyn *et al.* 2006; Kennedy *et al.* 2007). International guidelines on child dietary diversity recommend that complementary foods be feed in small amounts several times per day and include a variety of foods from different groups daily, including nutrient-rich flesh foods or fortified foods (Pan American Health Organization, 2001). The term diet diversity defined as the simple count of foods and food groups consumed over the past 24 hours, is a strong predictor of the micronutrient density adequacy of the diet in infants and young children (Food and Nutrition Technical Assistance, 2006; Moursi *et al.* 2008). The important concern in the health sector is maternal nutrition; as measures indicate around 50% of Bangladeshi women suffer from chronic energy deficiency. Low birth weight incidence is estimated at 45%, and micronutrient deficiencies are common. Table 2 shows the diet diversity of the children age 0-23 months and age 24-59 months. Data on child diet diversity indicates that 77.2% (81.5% boys and 72.3% girls) children of age 6–23 months received solid, semi-solid or soft foods on the previous day of the interview. It is also found that 69.3% children (boys 72.2% and girls 66.0%) received foods in the form of grains, cereals, including porridge, rice, potatoes; 43.6% children (boys 44.4% and girls 42.6%) ate yellow or orange fruits during the previous day of survey; 32.7% children (29.6% boys and 36.2% girls) ate any other fruits; 32.7% children (boys 29.6% and girls 36.2%) ate any food made by red palm; 54.5% children (boys 55.6% and girls 53.2%) ate meat/fish; 45.5% children (boys 51.9% and girls 38.3%) ate eggs and 18.8% children (boys 22.2% and girls 14.9%) ate any sort of food made by dairy product. Additionally, 58.4% children age of 6-23 months received food from 4 or more food groups during the previous day of data collection where the boys were 61.1% and the girls were 55.3%. Besides, 33.9% mother of children aged of 0-23 months reduced food during her latest pregnancy than other time; 33.9% mother mentioned that they took the same amount of food; 8% mother opined that they took more snacks; 6.2% mother mentioned that they increased 1 meal per day, and 17.9% mother reported that they increased 2 meals per day during her pregnancy.

Table 2. Percentage distribution of children diet diversity age of 6-23 months and 24-59 months

Food item	Children age 0-23 months			Children age 24-59 months		
	Boy	Girls	Total	Boy	Girls	Total
Ate any solid, semi-solid or soft foods to the last day of interview, during the day or night	81.50%	72.30%	77.20%	94.70%	91.40%	93.00%
Ate any grains, cereals, including porridge,	72.20%	66.00%	69.30%	82.40%	88.50%	85.60%
Ate any orange or yellow colored fruits or vegetables	44.40%	42.60%	43.60%	51.90%	58.30%	55.20%
Ate any other fruits or vegetables?	29.60%	36.20%	32.70%	48.10%	54.00%	51.10%
Ate food made with red palm oil	29.60%	36.20%	32.70%	43.50%	38.80%	41.10%
Ate any meats, fish or poultry, including organs	55.60%	53.20%	54.50%	64.90%	68.30%	66.70%
Ate any eggs	51.90%	38.30%	45.50%	48.90%	48.20%	48.50%
Ate any dairy products, for example, milk, yogurt	22.20%	14.90%	18.80%	19.80%	19.40%	19.60%
N	54	47	101	131	139	270

Data as regards to the diet diversity of children age of 24-59 months found that 93.0% (94.7% boys and 91.4% girls) children received solid, semi-solid or soft foods on the previous day of the data collection. In addition, 85.6% (boys 82.4% and girls 88.5%) children received foods in the form of grains, cereals, including porridge, rice, potatoes; 55.2% children (boys 51.9% and girls 58.3%) ate yellow or orange fruits during the previous day of data collection; 51.1% children (48.1% boys and 54.0% girls) ate any other fruits; 41.1% children (boys 43.5% and girls 38.8%) ate any food made by red palm oil; 66.7% children (boys 64.9% and girls 68.3%) ate meat/fish; 48.5% children (boys 48.9% and girls 48.2%) ate eggs; 19.6% children (boys 19.8% and girls 19.4%) ate any sort of food made by dairy product.

Delivery

Knowledge about safe motherhood plays important roles in women's care-seeking behavior. The most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth, and in the case of the emergency that transport is available to a referral facility for obstetric care (BBS 2012-2013: Multiple Indicator Cluster Survey). The common causes of maternal deaths include postpartum haemorrhage, eclampsia, complications of abortion; obstructed labor, and postpartum sepsis (Ahmed 1995). In the study are among the 1,200 households, 2 women age 15-17 years were found pregnant and 14 women age of 18-49 years were found pregnant. Regarding the distribution of last-born live birth by place of delivery, 63.4% women were identified who had delivered child at their respective homes followed by 13.4% delivered at government hospital, 8.9% of the women had delivered at someone else's home, 8.0% delivered child at the private clinic, 4.5% conducted delivery at the private hospital and 1.8% conducted delivery at other places. Furthermore, in all, 54.5% women were assisted by qualified doctors (MBBS doctor) during delivery of their children; 44.6% were assisted by nurse/midwife; 9.8% were assisted by family welfare visitors, 4.5% were assisted by traditional birth attendants, 0.9% were assisted by paramedics /medical assistant, 1.8% were assisted by community health worker, 7.1% were supported by relatives, 0.9% were supported by sub-assistant community medical officer and 1.8% were assisted by community health worker.

Antenatal Care (ANC)

Antenatal care is an important component of maternal health care package. The antenatal visits are very vital to the health and well-being of mother and their infants. Antenatal care is considered as an important factor because it informs women about the risks and symptoms of pregnancy, the risks of labor and delivery, and birth spacing. For this reasons, UNICEF and WHO recommend a minimum of four antenatal care visits during pregnancy (BBS 2012-2013: Multiple Indicator Cluster Survey). Data on antenatal care by recipient and provider indicate that 77.7% women in survey areas had received any antenatal care. It is found that about 57.1% women had received ANC from MBBS doctor and 9.4% conducted 4 or more visit, 15.2% received ANC services from nurse/mid-wives and 35.3% conducted 4 or more visits, 12.5% from family welfare visitors and 35.7% conducted 4 or more visits, 2.7% received ANC services from TBA and another 2.7% received services from trained TBA, and 3.6% received ANC services from community health workers.

Postnatal Care (PNC)

Postnatal care helps to identify the complications, promote healthy behaviors, confirms the establishment of successful infant feeding, links the mother to family planning services and the baby to child health care as well as fostering the development of good maternal-infant relationships (MacArthur 1999). Data depicts that 58.9% of women had a postnatal checkup (PNC) within the first week of delivery 12.5% was only for mother and 46.4% was both for mother and child. Those who received PNC services, among them 50.8% received services

with the 24 hours. PNC service received by the mother from MBBS doctor is 46.3% followed by 16.4% received services from nurses, 14.9% received services from the medical assistant, 4.5% received services from TBA and 1.5% received services from relatives. In the study area, 71.6% mother checked their babies during her first visit. Within 24 hours after delivery, 25.4% conducted the second visit. In the case of the second visit, 40.3% received counseling services from MBBS doctor, 20.9% received counseling from the medical assistant, 11.9% received counseling from nurse/mid-wives, 4.5% received counseling from TBA, and 16.4% received counseling from other sources.

Discussion and recommendation

The survey results identified that the mother is more conscious about hygienic practices and management of health issues. During FGD session with the pregnant mother, they explained their knowledge and practices on mother and child nutrition, children diarrhea management, personal hygienic practices, receiving ANC and PNC services during pregnancy which in fact, lead them towards safe delivery practices. Mother was found more aware of breastfeeding. Presently, 93.6% women with a child under 2 years who put the newborn infant to the breast within one hour of birth. But at the same time, a considerable number of children age of under 5 in the study area are still found to be malnourished with stunting and under weight. Therefore, it is recommended that health and nutrition program should be installed in further. Besides, due to the daily needs, the children of the poor, ultra poor and marginalized households go to work instead of going to school. So it is necessary to create the additional source of income which will be useful to support the children schooling.

Essential health service packages like ANC, safe delivery including complication management and PNC for reproductive age group women, as well as pregnant women, should be further extended. Through the Positive Deviance Hearth (PD Hearth) program child and mother know properly how to prepare nutritious food, measurement of child height and weight, learned about cleanliness and hand washing before taking meals. For treating the children who suffered from diarrhea, 66.7% caregivers of children aged of 0-59 months with diarrhea received oral rehydration therapy (ORT) and 51.2% children aged of 0-59 months with presumed pneumonia taken their children to a proper health care provider. At the moment, the percentage of children participating in the positive deviance nutritional program in the study area is very low which includes only 36.5%. Only 32.4% malnourished children aged of 6-23 months attend in the Positive Deviance Hearth sessions. In addition, child delivery practices at home are still very high which includes 63.4%. So more awareness related programs need to be carrying out on the Positive Deviance Hearth program.

It is found that males, females and children in the study area depend on the non-medically trained person for their health problems. Likewise, there are some vulnerable groups like children have no parents, children got married in early age, street children, poor pregnant mother, widow, and rickshaw/van puller. So representation and participation of the vulnerable and marginalized groups must be ensured in community planning and management mechanisms to fulfill their health needs and to improve the utilization of health services. Besides, inter-sectoral coordination and collaboration are essential to governments, NGOs and the private sector to address the effective health service delivery of the hard to reach population and the disadvantaged groups. Along with, there is a huge shortage of qualified practitioners and health professionals in the formal health system. So it is necessary to recruit the skilled nurses, midwives, technicians to meet shortage and improve service delivery.

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