

AMREF Afar  
Pastoralist Health  
Development  
Programme,  
Gebe Zone

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[**Reach Consult PLC**]

Baseline Survey  
(Final Report)

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## Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical Research Foundation
ANC	Anti Natal Care
ARI	Acute Respiratory Infections
ART	Anti-retroviral therapy
BCG	Bacillus Caulmette Guerin
CBO	Community Based Organization
C-IMCI	Community IMCI
CPR	Contraceptive Prevalence Rate
DHS	Demographic Health Survey
DPT	Diphtheria, Pertusis, Tetanus
EDHS	Ethiopian DHS
EOC	Emergency Obstetric Care
EPI	Expanded Program on Immunisation
FGD	Focus Group Discussion
FGC	Female Genital Cutting
FMOH	Federal Ministry of Health
GAVI	Global Alliance on Vaccines and Immunizations
HC	Health Centres
HEW	Health Extension Workers
HH	House Hold
HIV	Human Immunodeficiency Virus
HP	Health Post
HSDP-III	Health Sector Development Program
HSEP	Health Service Extension Program
HTP	Harmful Traditional Practices
ICC	Interagency Coordination Committee

IMCI	Integrated Management of Childhood Illnesses
ISY	In-School Youth
KII	Key Informants Interview
MCH	Mother and Child Health
MPS	Making Pregnancy Safer
NGO	Non Governmental Organisation
OPV	Oral Polio Vaccine
OSY	Out of School Youth
PMCT	Prevention of mother to child transmission
PNC	Post Natal Care
RBM	Roll Back Malaria
RED	Reaching Every District
RH	Reproductive Health
SPSS	Statistical Package for Social Sciences
STI	Sexually Transmitted Infection
TBA <sub>s</sub>	Traditional Birth Attendants
TFR	Total Fertility Rate
THCP <sub>s</sub>	Traditional Health Care Providers
TOR	Terms of Reference
TT	Tetanus Toxoid
UNFPA	United Nations Fund for Population Action
VCT	Voluntary Counselling and Testing

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## **EXECUTIVE SUMMARY**

This is an overview of the research findings of the baseline survey report, which was conducted from 25 August to 15 September 2009. The main objective of this survey is to collect the baseline information, which could serve as a benchmark to measure the impact that would be resulted in the coming years, and to improve maternal and child health services of the target Woredas. In order to meet this objective, baseline information was collected from a representative sample of women who reside in six Woredas of Gebi Zone of the Afar Region, namely Awash Fantale, Amibara, Argoba, Burumudaytu, Dulesa and Gewane. A total number of 786 women at the age category of 15 to 60 years were included in this survey, but the majority 772 (98.2%) of the respondents were at reproductive age of 15 to 49. Among these respondents, 112 (14.2%) were from Awash Fantale, 257 (32.7%) from Amibara, 86 (10.9%) from Argoba, 131 (16.7%) from Burumudaytu, 80 (10.2%) from Dulasa, and 120 (15.3%) from Gewane Woreda. The survey was conducted through both quantitative and qualitative research methods. Quantitative data was collected using structured household and facility service questionnaires, while qualitative information was collected mainly through focus group discussions, in-depth interviews, direct personal observations and by reviewing secondary data.

Regarding the religious affiliation, most of the respondents (90.2%) were Muslim, while the rest 9.8% were Christians. In terms of ethnicity, 71.4% of the respondents were Afar, and followed by Argoba (12.1%), and Amhara (10.3%). While the remaining were members of the Oromo, Wolayita, Kambatta, Hadiya and other ethnic groups. With regard to occupation, 62.8% of the respondents were housewives, whereas the significant others lead their livelihood through pastoralism. Regarding their monthly income, 61.7% of the respondents earn a monthly income less than 300 ETB and 29.1% of the respondents earn a monthly income ranging from 300 to 600 Birr. The rest 9.1 % earn ETB 601 and above. Concerning their marital status, the majority (92.6%) of respondents were married, while 8% were separated, 4.3% were widowed, and 2.2% were divorced at the time of the survey. The household size of the respondents ranges from 1-15 with median household size of 5.

With regard to their awareness on the different components of reproductive health services, 103 (13.1%) of the respondents indicated that they don't know any reproductive health services at all, while the rest 86.9% know at least one of the reproductive health services. The major sources of reproductive health information for the respondents include radio

(30%), television (8.6%), newspapers (0.9%), friends/neighbours (19.4%), health workers (58%), social workers (19.5%), and religious institutions (1.2%). Currently, 151 (24%) of mothers reported that they are using family planning methods. Of those who are current users of family planning services, 139 (92.1%) are using injectable, while the rest 12 (7.9%) are using the oral contraceptive pills. The major reason for not using a family planning among the study participants was that they need to bear a child. This is true for 321 (71%) of the respondents. The other reasons are refusal from their husbands' side (7.5%), religious prohibition (6.2%), and lack of access to family planning service (7.5%).

From the respondents who sought treatment for pregnancy related problems, about 78.4% of the respondents have sought treatment from the health posts (29%), 46.5% from health centres, 14% from Private clinics, and 9.5% from a hospital. However, only 1% of the respondents sought treatment at their homes by Health Extension Workers. The major reasons for not seeking treatment in health institutions were lack of money for medication, long distance from the health facility, lack of trust in the health services, unwillingness of their partners, lack of awareness and the availability of traditional way of treatments. From the total number of 786 respondents, about one-fifth 165 (21%) of the respondents reported that they had faced certain problems in relation to pregnancy and delivery. The most commonly reported problems are excessive vaginal bleeding (28.4%), retained placenta (10.5%), prolonged labour (47.5%), premature rupture of membrane, less altered consciousness and anaemia.

In accordance with harmful Traditional Practices (HTP), 689 (88.3%) of the respondents have at least heard about one of the common HTPs. Female Genital Cutting (FGC) is known to be the major harmful traditional practice as underlined by 674 (96.8%) of the respondents. The other commonly known harmful traditional practices mentioned were extraction of milk teeth 152 (21.8 %), early marriage 126 (18.1%), marriage by abduction 107 (15.4%), abdominal massage 100 (14.4%), tooth sharpening 84 (12.1%), widow inheritance 28 (4%) and others 3 (.4%)..

With regard to access to social services, water is the priority need of the Afar community including the Gebe zone, and the majority of the rural inhabitants have no adequate access to safe/protected water. Nevertheless, as a result of larger sample size that was taken from the K'ebeles closer to urban centres due to their higher population number, and due to the inaccessibility of many rural K'ebeles, the number of people who have no access to safe

water was lower than the number of people who have access to safe water. In terms of ownership of latrine at a household level, only 94 (12.0%) of the households have a latrine for the family, while the rest 88% of the respondents use open field for their waste disposal. In short, the findings obtained from the baseline survey are summarised in terms of indicators as follows:

**Table.1. Summary of Key Indicators**

<b>Indicator</b>	<b>Baseline</b>
<i>Kebeles with trained HEWS</i>	55.2 %
<i>Children accessing health services (visited health facility at least once)</i>	61.5%
<i>Pregnant women attending ANC (at least one visit during last pregnancy)</i>	57.3%
<i>Births attended by skilled health personnel (Delivered the last child in Health facility)</i>	8.0%
<i>Mothers received postnatal care within 42 days of delivery (At least one check up)</i>	22.5%
<i>Non-pregnant women seeking care for reproductive health conditions (Family planning)</i>	24.0%
<i>Households accessing safe water within 2km (less than 30 minutes)</i>	78.0%
<i>Households having access to latrine</i>	12.0%
<i>Households with latrine who use it properly and consistently</i>	69.1%
<i>Health and water authority managers and local technicians actively involved in the management and maintenance of water sources</i>	50%
<i>Households expressing satisfaction at existing health and water services</i>	50.7%
<i>Woredas preparing appropriate health and water annual work plans.</i>	<i>No well organized plan</i>
<i>Woreda health plans included RH rights and FGC</i>	<i>All woreda consider FGC as</i>

	<i>priority</i>
<i>Number of case s referred to health centres by HEWs</i>	<i>No well organized referral system</i>
<i>Service provision facilities exhibiting gender sensitivity in the service delivery environment</i>	<i>No gender sensitive service delivery</i>
<i>Households having the necessary supplies for birth and plan in the event of complications.</i>	61%
<i>Women and men who can state danger signs of obstetric and neonatal complications</i>	72.6%
<i>Households who can recognize symptoms of malaria</i>	95.7%
<i>Members of the community (mothers) who support the fight against FGC</i>	84%
<i>Woredas having community-based health information management system</i>	0%
<i>Schools having functional school clubs</i>	<i>N/A (Schools were closed)</i>
<i>Pastoralist women represented in health and water committees at woreda and kebele levels</i>	0%
<i>Mothers who have access to maternal health services within their kebele from trained HEWs</i>	64%
<i>Community members who have access to information on RH</i>	86.9%
<i>Pastoralist communities who have adequate knowledge on the HTPs (on FGC)</i>	96.8%
<i>Managers of local authorities plan, implement, monitor and evaluate social service programmes in a participatory manner.</i>	<i>Very few – indirect through elected representatives</i>
<i>Children using child health services (of those sick in the past two weeks)</i>	81.8%
<i>Health centres in the project area providing integrated management of childhood illness services</i>	<i>There is no independent childhood illness services</i>
<i>Children under 5 with fever get treatment within 24 hrs of onset fever</i>	40.2%
<i>Women assisted by sexual reproductive health services (family planning is used as proxy indicator) refer table in MCH section for detail</i>	15.3%

<i>Health facilities providing MCH and reproductive health services</i>	
<i>Health facilities providing BEOC</i>	<i>16.6% (The service is available only in Awash)</i>
<i>Health personnel providing improved delivery services in obstetric emergency.</i>	<i>1 Gynaecologist – not available during the survey</i>
<i>Clients satisfied with BEOC services (with maternal and child health services)</i>	<i>50.7%</i>
<i>Schools advocating against FGC.</i>	<i>N/A (Schools were closed)</i>
<i>In-school youths who properly use latrine/toilet</i>	<i>N/A (Schools were closed during the survey)</i>
<i>Prevalence of waterborne diseases- proxy indicator proportion of woreda reporting Diarrhoea and intestinal parasites as one of the top five diseases</i>	<i>66.7% of the districts</i>
<i>Community members who have knowledge in hygiene and sanitation</i>	<i>65.8%</i>
<i>Community members practicing face and hand washing regularly (Face washing)</i>	<i>30%</i>
<i>Community members practicing face and hand washing regularly</i>	<i>47.5%</i>

## **2. Background**

### **2.1. Situation of Reproductive Health, Maternal and Child Health Services in Ethiopia: An Over View**

Ethiopia is one of the countries with an estimated population of 77.2 million, the second most populous country next to Nigeria in the continent (1). Ethiopia's national health policy gives a high priority to the democratization and decentralization of the health service systems and emphasizes family planning services for optimal health of the mother; child and family. The population policy also emphasizes the expansion of family planning through clinical and community based services. It sets objectives to reduce TFR from 7.7 to 4.0 and increase CPR from 4% to 44% by the year 2015 (2). However, the use of family planning services in Ethiopia is among the lowest in the world. According to Ethiopian Demographic and Health Survey (EDHS), the contraceptive prevalence rate (CPR) in 2005 was 15%. The total fertility rate was 5.4. There has been gradual decline of total fertility rate from 6.9 in 1990 to 5.4 in 2005, which is a one child reduction decline in the past 15 years. Seventy eight percent of Ethiopia's currently married women want to either stop or postpone child bearing. The unmet family planning need among married women in reproductive age group in the same year was 36% (3).

Maternal mortality is relatively high in Ethiopia with more than one in five deaths to women age 15-49 in the seven years preceding the survey attributed to pregnancy or pregnancy related causes. The maternal mortality ratio, which measures the obstetric risk associated with each live birth, is 673 deaths per 100,000 live births for the period of 1994-2000. Direct estimates of male and female mortality obtained from the sibling history gathered in the EDHS shows that there were more female than male deaths in the seven years preceding the survey (925 compared with 903). The female mortality rate is 6.4 deaths per 1,000 populations, which is 8 percent higher than the male mortality rate of 5.9 deaths per 1,000 populations (3).

According to DHS, Twenty-eight percent of mothers who had a live birth in the five years preceding the survey received antenatal care from health professionals; less than one percent of mothers received antenatal care from trained and untrained traditional birth attendants. More than seven in ten mothers did not receive antenatal care. There was little improvement in the percentage of mothers who received antenatal care from a health professional in the five years between the 2000 and 2005 surveys. About one in ten women make four or more antenatal care visits during their entire pregnancy. The median duration of pregnancy for the first antenatal visit is 5.6 months, indicating that Ethiopian women start antenatal care at a relatively late stage of their pregnancy.

Among mothers who received antenatal care 31 percent reported that they were informed about pregnancy complications during their antenatal care visits. Weight and blood pressure measurements were taken for 72 percent and 62 percent of mothers, respectively. About one quarter of mothers gave urine and blood samples. For last live births in the five years preceding the survey, only one in three women were protected against neonatal tetanus. Most of these women (28 percent) had received two or more tetanus injections while pregnant with the last birth. Despite the low coverage, there is evidence of improvement over time. The percentage of women who received two or more tetanus injections during pregnancy for the last birth increased from 17 percent in 2000 to 28 percent in 2005 (3).

An overwhelming majority (94 percent) of births in the five years before the survey were delivered at home. Five percent of births were delivered in a public facility and one percent in a private facility. Six percent of births were delivered with the assistance of a trained health professional, that is, a doctor, nurse, or midwife, while 28 percent were delivered by traditional birth attendants (TBAs). The majority of births (61 percent) were attended by a relative or some other person. Five percent of births were delivered without any type of assistance at all. Postnatal care is extremely low in Ethiopia. Nine in ten mothers who had a live birth in the five years preceding the survey received no postnatal care at all, and only 5 percent of mothers received postnatal care within the first two critical days after delivery.

The DHS data shed some light on the status of women in Ethiopia. While the majority of Ethiopians have little or no education, women are generally less educated than men. However, the male-female gap in education is more obvious at higher than at lower levels of education, indicating the government's recognition and successful intervention to address gender disparity in more recent years. Almost two-fifths of currently married women who receive cash earnings report that they alone decide how their earnings are used, while more than half of currently married women say that they decide jointly with their husband or partner. Information on women's decision making autonomy shows that almost 53 percent of currently married women make independent decision about daily household purchases. While 15 percent of women make sole decisions on their own health care, one-third say that their husband or partner makes such decisions.

Decisions on large household purchases are typically made by the husband or partner alone or jointly with their husband or partner. More than two-thirds of women say that decisions to visit family or relatives are made jointly with their husband or partner. The majority of women and men agree that a woman is justified in refusing to have sexual intercourse with her husband or partner for at least one of three specified reasons. Only one in ten women and men is of the opinion that a woman cannot refuse sexual intercourse for any reason. On the other hand, a sizable proportion of women (44 percent) and to a lesser extent men (23 percent), believe that a husband is justified in beating his

wife if she refuses to have sex with him. Overall, eight in ten women and around half of men believe that there are at least some situations in which a husband is justified in beating his wife.

EDHS data indicate a positive relationship between women's status and contraceptive use. Contraceptive use is highest among women who participate in most household decisions, who agree that a woman can refuse sexual intercourse with her partner for all three specified reasons, and who believe that wife beating is not justified for all five specified reasons. The data show that mean ideal family size declines as women's status increases. Also, there is a correlation between women's status and utilization of health services. The more empowered a woman, the more likely she is to receive antenatal, postnatal, and delivery care from a health professional. The relationship between childhood mortality and women's empowerment is mixed. The EDHS provides insight into several harmful traditional practices existent in Ethiopia (3).

The practice of female circumcision is widespread in Ethiopia, with three in four women age 15-49 circumcised. Six percent of circumcised women reported that their vagina had been sewn closed (infibulations). More than two in five Ethiopian women themselves have had uvulectomy or tonsillectomy. More than two-fifths of women with at least one daughter have a daughter who has had uvulectomy or tonsillectomy. Eight percent of women reported that they had been married by abduction and about one percent with at least one daughter reported that a daughter was married by abduction. Around one in four women interviewed in the EDHS had heard of obstetric fistula and one percent of women who have ever given birth reported having experienced obstetric fistula. A small percentage of women (less than one percent) reported that they had been treated for obstetric fistula. According to information gathered from women who have heard of the condition, 4 percent of other women resident in the household also suffer from obstetric fistula (3).

## **2.2. Health Services in Pastoral Communities in Ethiopia**

Pastoralists constitute about 10% of the Ethiopian people. However, there is no appropriate health service delivery package to address their needs. The health objectives set in HSDP-II for this group were to establish an appropriate health service delivery for the pastoralist population and increase coverage and utilization of health services in pastoralist population (4). As part of developing appropriate health service delivery for the pastoralist population, the HSEP has been modified to suit to the context of the pastoralists. Government has also given due attention to improvement of the living conditions of pastoralists, which mainly reside in the Newly Emerging Regions. The Ministry of Federal Affairs has handled the issue of providing a multicultural support to this group of people. A board composed of members recruited from six ministries was established under this Ministry and,

subsequently, a technical committee has been set to gather momentum and coordinate multi-sectoral efforts geared towards provision of integrated support to the Newly Emerging Regions.

Some initiatives are underway to join inter-sectoral effort to promote development. For instance, the design of Pastoral Development plans in Afar & Gambella and the establishment of Pastoralist Development Commission in Oromia could be mentioned. A concept paper, "Health Service Delivery to Pastoralists", has also been developed by FMOH. The 16 national packages have been tailored to pastoralists needs and were translated into local languages before application (4).

In order to achieve these targets, prenatal and newborn health were identified as priority area in the Health Policy. Regarding maternal and adolescent health services, priority was given to the provision of Safe Motherhood services to cater for normal pregnancies, deliveries and referral centres for high-risk pregnancies; post abortion care; addressing the sexual and reproductive needs of adolescents; encouraging paternal involvement and discouraging harmful traditional practices; appropriate nutrition education to mothers and children and provision of family planning services.

A number of operational researches have been conducted. The areas of the studies include contraceptive and logistic system, contraceptive training needs, Norplant implementation and community-based distribution, among others. A procedure manual for contraceptive logistic was also developed to implement an effective logistic system; trainings were provided to regional RH managers on contraceptive technologies and MPH courses and short courses to health workers were sponsored by UNFPA.

A National Reproductive Health Taskforce with technical working group for Making Pregnancy Safer (MPS), family planning, nutrition, STIs/HIV, logistics and adolescent RH have been formed to assist the programme with resource mobilization, monitoring and development of appropriate policies and guidelines. An advocacy material that shows the maternal and newborn mortalities in Ethiopia and their impact in terms of economic loss and loss of lives was also developed using the REDUCE module (3).

Making Pregnancy Safer was launched in 2001 and implemented in four regions on pilot basis. Health workers were also trained on basic emergency maternal and newborn life saving obstetric services, EOC, caesarean section and anaesthesia. 10 hospitals and over 40

HCs were equipped with basic essential equipment and supplies, and vehicles were procured and distributed to enhance programme implementation and the referral system. The review of the programme conducted in year 2003 revealed improvement in the quality of service and handling of obstetric emergencies that stimulated the rapid scaling up of the programme coverage (4).

With regard to child health, IMCI was adopted nationally in 1997 as a major strategy to reduce childhood mortality and morbidity and promote childhood development. It has three components i.e. improving: the skills of health workers, health systems, family and community practices. It links preventive and curative services and programmes such as immunization, nutrition, malaria and infectious diseases are implemented in an integrated manner. The main activities under IMCI are prevention and control of ARI, diarrhoea, malaria, malnutrition, measles and HIV/AIDS.

Since 2001, IMCI has been in its expansion phase, hence, 36% of health facilities are implementing IMCI and 4,303 health workers were trained (43% of the targeted 10,108). The district coverage is also about 23% (131 of the targeted 580 districts). Pr-service IMCI training is being provided to health workers of different categories in 65% of government health professional training institutions. Community IMCI activities are initiated in 9 regions, while interventions are well underway in the two pilot regions (Amhara and Tigray). C-IMCI baseline surveys and needs assessment have been conducted. Moreover, essential materials for implementation of C-IMCI i.e. National Implementation Guideline and Communication Strategy, the 20 Key Family Practices for Ethiopia, training manual and Key Messages for Community Resource Persons have been prepared and applied. The National Child Survival Strategy document, which addresses the major causes of child morbidity and mortality, was finalized and endorsed in 2004 (4).

Furthermore, Interagency Coordination Committee (ICC) has been established and meets regularly to address issues on improving routine EPI, supplementary immunization activities and disease surveillance. This committee also plays a key role in resource mobilization for EPI. Supplemental immunization of polio, measles and neonatal tetanus was introduced in order to reach the remote areas of the country, strengthen the routine immunization activity and eradicate/eliminate the 3 vaccine preventable diseases. Several sessions of training were given to midlevel managers and cold chain technicians using Midlevel Managers and Immunization in Practice Modules. The programme has also replaced the reusable syringe

by AD syringe and all injection vaccines were given using the disposable syringes and safety boxes. Since the introduction of the Reaching Every District (RED) strategy, most Woredas have been developing micro-plans (4)

Major constraints encountered during the implementation of MCH programmes were: understaffing and high turnover of both technical and managerial staff at all levels, inadequate follow-up and supportive supervision, shortage of transportation, lack of motivation of service providers, and poorly functioning of outreach sites and weak referral system. There are also high vaccine wastage rates, critical shortage of basic equipment for the management of emergency obstetrics at facility level and short supply of contraceptives and vaccines. Regarding EPI, there is a high vaccine wastage rate (65% for BCG, 30% for measles, 20% for DPT, 15% for OPV and 10% for TT). This is mainly attributed to poor planning of static and outreach sessions, lack of awareness of the community, poor management of the cold chain system and the currently applied One Vial One Child Policy. One of the threats to EPI is the adjournment of GAVI's support for injection materials (2002-2004) necessitating the financing of these commodities from the Government Budget and other HSDP partners (4).

The following are the future directions towards the improvement of MCH service.

- Operationalize the harmonization of maternal and child health programs with the Health Extension Programme.
- Accelerate capacity building at the Regional and District level for planning, training, follow up and support supervision.
- Building the capacity of training institutions to scale-up IMCI pre-service training through training of instructors and provision of financial and material support.
- Involve NGOs and the private sector to scale up maternal and child health interventions.
- Strengthen the collaboration and integration among relevant programs like RBM, EPI, Nutrition, MPS, IMCI and HIV/AIDS etc., to avoid duplication of efforts and maximize the impact.
- Optimally utilize the opportunity of the child survival initiative to scale up maternal and child health interventions.

- Introduce new vaccines against Hepatitis B and Haemophilus Influenza.

### ***2.3. African Medical and Research Foundation (AMREF)***

AMREF is an International NGO which is implementing range of community development activities across the country. In partnership with the Afar Regional Health Bureau and other key stake holders, AMREF has been implementing different health development programs in Afar since 2005. Currently, through funding from the Spanish Government for International Development Agency and the European Commission (EC), AMREF has started two projects in Gebe Zone of Afar National Regional State.

The General objective of the projects is to improve the health and quality of life for the marginalized communities in Afar, Ethiopia, contributing to the achievement of the Millennium Development Goals. To this end, AMREF desired to undertake a baseline survey that could serve as a benchmark to gauge results attributable to plans in this regard, so as to ensure success for the capacity development activities in Afar region which includes latrine construction, borehole drilling, spring water development, equipping and /or rehabilitating health facilities, applying the most appropriate site selection and construction techniques.

## **3. Objectives**

### ***3.1. General Objective***

The general objective of the baseline survey was to conduct assessment and document community and health facility based findings pertaining to the health status of mothers and children and their determinants. The survey was conducted to prepare a comprehensive report with findings and tangible recommendations within the framework of the following specific objectives.

### ***3.2. Specific Objectives:***

The specific objectives of the baseline survey were to:

- To provide a baseline information for water and sanitation related indicators.
- To describe basic socio-demographic characteristics of pastoralist communities
- To assess the awareness and perception of mothers about reproductive health and indicate baseline data in relation to maternal and child health services.
- To assess and indicate situations in health facilities.

## **4. Methodology**

### ***4.1. Study Area***

The baseline survey was conducted in selected communities and health facilities in Gebe Zone (Zone three) of Afar Regional State.

### ***4.2. Study Period***

The study was conducted in a total duration of two months (9 August to 9 October 2009) after the initial contract agreement was signed between AMREF and Reach Consult PLC.

### ***4.3. Study Design***

A cross sectional study design was employed for the baseline survey and Triangulation Method was applied. Accordingly, both quantitative and qualitative methods were employed. To get more insight into issues that can't be addressed by the quantitative survey, qualitative methods mainly focus group discussions and Key informants in-depth interviews were used. In addition, to get relevant data on background of the districts (total population and size of different segments of the population, socio demographic characteristics, major health problems, availability of health facilities/services provided, and others) secondary data review and direct personal observations were used.

### ***4.4. Quantitative Method***

The quantitative survey has two parts; household based survey and facility based survey.

#### ***4.4.1. Household Survey***

##### ***4.4.1.1. Target Population***

Women residents in the age group of 15-49 were the main targets of the survey, including the male partners who were interviewed about health complications related to pregnancy and delivery. However, other target groups like students and teachers were not consulted because schools were closed for vacation.

#### **4.4.1.2. Sample Size and Sample Selection**

Multi stage probability (random) sampling was used to identify individuals for the interview. Sample size was determined with an assumption of 50% of any of the services under investigation for a maximum sample size. Accordingly the following formula for determining sample size in cross sectional studies was used.

$$n = \frac{z_{\alpha/2}^2 (p(1-p)deff)}{\epsilon^2}$$

n = Total sample size required p= the maximum proportion of the study subjects with the characteristic of interest (in this case assumed to be 0.5 or 50%

d = is the margin of error tolerated (fixed at 0.05 or 5%)

k = Standard score at 95% confidence interval

Taking a non-response rate (contingency) of 5% into consideration, the sample size required will be 397 for all woreda covered by the survey.

The total sample size for the survey will be 397 and with 2 design effect (kebele and household the sample will be multiplied by 2)

$$\mathbf{N = 2 \times 397 = 794}$$

During the data collection all the six woredas named Awash Fantalle, Amibara, Argoba, Burimodaitu, Dulecha and Gewane were included. In selecting the study sample, population size and accessibility of the selected kebeles was used as the criteria for inclusion. As a result of being a rainy season and some of the kebeles were inaccessible; the research team was forced to exclude certain K'ebeles, and to consider a mix of both rural and urban Kebeles. Allocation of sample size to each Kebele was made based on the population in each kebele. Finally, households were randomly picked (considering the age of the women).

#### **4.4.1.3. Data Collection Instrument (Questionnaire)**

An anonymous structured pre-coded Household questionnaire was used. The questionnaire comprised topics like: Socio-demographic characteristics, Knowledge Attitudes, Behavior and Practices of the respondents on RH issues. The preliminary questionnaire was developed and further refined after discussion with AMREF and the questionnaire was adapted to ensure that the specific socio-cultural realities of the study area are taken into

account. *The detailed questionnaire was designed based on the list of indicators provided in the TOR.*

#### ***4.4.1.4. Variables of Interest***

***Independent Variables:*** Socio-demographic characteristics like age, sex, place of origin and family background, address, etc.

***Dependent variable:*** knowledge, attitude, behaviours & practices related to RH issues relevant to the health of mothers and children.

#### ***4.4.1.5. Selection and training of data collectors***

The questionnaires were administered by interviewers. Among the 12 interviewers (data collectors), eight were university students, while the rest four were university graduates with ample experience in survey research. Data collectors were given adequate training before the start of the data collection. Data Collection Manuals for both supervisors and interviewers was prepared and they were trained for two days, and involved in field practice then after. The interviews were conducted at the respondents' home at convenient time to them. At the end of each data collection day, the supervisors gathered the questionnaires, collected the information, and checked them for completeness and internal consistency. Incomplete questionnaires were returned back to the interviewers for completion after another visit to the household.

#### ***4.4.1.6. Data Quality Assurance***

Various precautions and measures were taken to assure the quality of the data. The questionnaire, which was first prepared in English, was translated into Amharic by skilled translators. The questionnaire then was translated back into English by another individual. Consistencies were assessed and adjustment measures were taken. Every day the collected data was checked for completeness and consistency. Local translators who have good understanding of the subject matter and trained to support the survey were also involved.

#### ***4.5. Data Entry and Analysis***

Data was sorted out and organized by field supervisors on daily basis. The filled data was checked for completeness and consistency, coded and double entered. After field editing and

checking of the completed questionnaires, the data entry was done using SPSS Version 15 and data Analysis was done by statistician.

Accordingly, proportions/frequencies are tabulated.

#### **4.6. Health Facility Survey**

The Health facility assessment was conducted in selected health facilities. Accordingly health centres, were selected for assessment each representing an urban and rural setting. Institutional checklist was developed addressing the important institutional variables indicated in the TOR. Data was collected by trained data collectors, and closely supervised by supervisors, by the consultant and by the staff of AMREF. This was done through structured household and facility survey questionnaires, semi structured FGD and interview guide as well as through non participatory personal observation. Data entry and analysis was performed in the same way described above under the household survey.

Both semi structured in-depth interviews of key community informants and FGDs of various target groups was employed to triangulate the findings with the quantitative data obtained. The preliminary guide questions was developed and refined with preliminary analysis of the quantitative data and further discussion with AMREF.

The major purpose of the qualitative survey is to explain target groups' perceptions, misconceptions, attitudes, behaviours and knowledge about RH issues in the area; to explore gaps identified and find out reasons for some of the results obtained from the quantitative survey; to triangulate the main findings of the quantitative survey; and to provide an additional angle from which to view the findings of the quantitative survey and hence create an opportunity for initiating further research in some areas.

A focus group discussion was also used to get insight into issues that can't be addressed by the quantitative survey. In consultation with AMREF, one FGD session was organized at each Woreda, and a total number of six FGDs were conducted in six Woredas with mothers comprising 6-10 discussants in each session.

The sessions were held in areas convenient to participants by selecting the discussion sites jointly. The purpose of the discussion was clearly explained to them to get their full participation in the discussion. Open-ended questions were used to guide the discussions. Tape recording of the discussion was made as it was of great help to replay and get missed

information and to quote participants' phrases. To allow smooth discussion, it was tried to make each group of similar characteristics. An assistant was taking notes while the facilitator facilitates the discussion. Responses were transcribed, translated into English.. FGDs were facilitated by the principal investigator of the study.

#### ***4.6.1. In-depth Interviews***

In-depth interviews were held with Health and Water Authority Officials, the health workers and women respondents. The preliminary guide questions were refined in consultation with AMREF. A total of five in -depth interviews were held with informants. In-depth interviews of key informants were conducted with people who represent various demographic and socio-economic categories and who have rich experience and broad knowledge about personal and professional views. These include health and water bureau officials, religious leaders, the elderly and health extension workers. Each interview took between 45 minutes to 1 hour and 15 minutes. The interviews were conducted in an appropriate and quiet place selected jointly.

The key informant interviews were tape-recorded with the consent of the study subjects. Careful and most complete notes were taken whenever tape recording was refused. Data from the in-depth interview and the focus group discussion was transcribed and interpreted daily by the principal investigator. The questions to be used as topic guides for the qualitative study was derived from four groups of themes or categories indicating knowledge, attitude and behaviour, and interventions in the area of RH service provision and utilization in the community:

#### ***4.7. Analysis of Qualitative Data***

The qualitative data from the in-depth Interviews and FGD recorded by the note-taker and tape recorder was transcribed and translated into English on daily basis and was analyzed using thematic approach and interpreted accordingly. The analysis also follows the themes and categories mentioned above. Most important findings were incorporated in the report.

#### ***4.8. Review of Secondary Data***

At the very beginning of the survey planning, secondary document review of existing project document was conducted. Accordingly, existing secondary data and records like program and project document, organizational strategy and policy reports were reviewed. This was conducted by the principal investigator.

#### ***4.9. Ethical Considerations***

Written letter of support was obtained from AMREF and the survey was conducted in collaboration and active participation of the regional health and water bureaus. Informed consent from the study subjects themselves was obtained during the time of the data collection. The questions were asked to respond to the questions anonymously and are reassured that the information in the filled questionnaire will not be exposed to any other person other than the principal investigators, and will in no way be traced back to the respondent. The FGDs and in-depth interviews were organized at the convenience of the study subjects. The right of participants to give up the study at any time they want also was ensured.

#### ***4.10. Plan for communicating and utilization of the results***

The draft report was submitted to AMREF as per the time plan. The final finding of the survey was submitted to AMREF by incorporating the comments and feedback given from AMREF. It is also hoped that the results will be communicated on the consultative workshop for all the stakeholders.

## 5. Results and Discussion

As it is reported in the health and health related indicators survey, the Afar Regional State has one of the highest CBR/1000 which is 36.8/1000. The infant mortality rate for the region is exhibited to be 61/1000. Under five mortality rate for the region is as high as 123/1000.

**Table 1: Some health and health related indicators in Afar and Ethiopia, HHRI 2000 EFY**

	<i>Full immunization coverage</i>	<i>VCT positivity</i>	<i>ANC coverage</i>	<i>Attended delivery (skilled)</i>	<i>Attended delivery (HEW)</i>	<i>PNC</i>	<i>Family planning</i>
<b><i>Ethiopia</i></b>	53.6	2.7	61.9	21.2	0	20.7	53.1
<b><i>Afar</i></b>	50.2	1.7	58.31	28.28	20	12.3	20.24

### 5.1. Demographic Socio-Economic Information

This section presents an overview of the socio-economic and demographic characteristics of the study population such as age composition, marital status, religious affinity, ethnic background, household compositions, employment/ occupation and educational attainment.

In this baseline assessment a total number of 786 respondents were consulted through structured questionnaire. In the sample size determination 5% contingency was included from the beginning, thus we found that it is enough for valid analysis. All respondents were from six Woredas/districts in Gebe zone of the Afar Region. The distribution of respondents in this survey is displayed by Woredas of residence in the following table.

**Table 2: Distribution of Respondents by Woredas of Residence, August 2009, Afar**

<b><i>S#</i></b>	<b><i>Name of the Woreda</i></b>	<b><i>Number</i></b>	<b><i>Percentage</i></b>
<b><i>1</i></b>	<b><i>Gewane</i></b>	<b><i>120</i></b>	<b><i>15.3</i></b>
<b><i>2</i></b>	<b><i>Amibara</i></b>	<b><i>257</i></b>	<b><i>32.7</i></b>
<b><i>3</i></b>	<b><i>Dulecha</i></b>	<b><i>80</i></b>	<b><i>10.2</i></b>
<b><i>4</i></b>	<b><i>Bure Mudayitu</i></b>	<b><i>131</i></b>	<b><i>16.7</i></b>
<b><i>5</i></b>	<b><i>Awash Fentale</i></b>	<b><i>112</i></b>	<b><i>14.2</i></b>

<b>6</b>	<i>Argoba</i>	86	10.9
	<b>Total</b>	<b>786</b>	<b>100</b>

With regard to age of the respondents, the age of the respondents ranged from 15 to 60 years. However, most of the respondents (98.2%) were at the age between 15 and 49. Therefore, the mean (SD) of the age distribution of respondents was 29.14 (7.6). Almost all respondents (90.2%) were Muslims, while the rest 9.8% were Christians.

**Table 3: Income of the households**

<i>Family income</i>	<i>Frequency</i>	<i>Percent</i>
<i>Less than 300 Birr</i>	485	61.7
<i>301-600 Birr</i>	229	29.1
<i>601-1000 Birr</i>	45	5.7
<i>More than 1000 Birr</i>	27	3.4
<b>Total</b>	<b>786</b>	<b>100.0</b>

Regarding their monthly income, 485 (61.7%) of the households earn a monthly income less than 300 ETB. Whereas the rest 301 (38.2 %) of the households earn a monthly income of ETB 601 and above.

**Table 4: Occupation of the Respondents**

<i>Current Occupation</i>	<i>Frequency</i>	<i>Percent</i>
<i>Government Employee</i>	43	5.5
<i>House Wife</i>	494	62.8
<i>Trader</i>	55	7.0
<i>Private business</i>	25	3.2
<i>Farmer</i>	10	1.3
<i>Pastoralist</i>	109	13.9
<i>Daily labourer</i>	46	5.9

<i>Others</i>	4	.5
<i>Total</i>	786	100.0

The respondents' current occupation status shows that the majority of the informants in this study 494 (62.8%) are house wives. The next major occupation of the respondents is pastoralism accounting for 109 (13.9%) of the respondents, and followed by occupations like trade 55 (7%), daily labour 46 (5.9%), government employment 43 (5.5%), private business 25 (3.2%), farming 10 (1.3%) and others 4 (.5%). The household size of the respondents ranges from 1-15 with median household size of 5. Its standard deviation is 2.2 persons.

**Table 5: Marital Status of the Respondents**

<i>Marital status</i>	<i>Frequency</i>	<i>Percent</i>
<i>Single</i>	1	.1
<i>Married</i>	728	92.6
<i>Divorced</i>	17	2.2
<i>Separated</i>	6	.8
<i>Widowed</i>	34	4.3
<i>Total</i>	786	100.0

Regarding the marital status, the majority of the respondents 728 (92.6%) married, while 4.3% are widowed. It is also evident that 2.2% respondents are divorced and .8% are separated.

**Table 6: Ethnicity of the Respondents**

<i>Ethnicity</i>	<i>Frequency</i>	<i>Percent</i>
<i>Afar</i>	561	71.4
<i>Amhara</i>	81	10.3
<i>Oromo</i>	13	1.7

<i>Tigre</i>	4	.5
<i>Argoba</i>	95	12.1
<i>Other</i>	19	2.4
<i>Wolayita</i>	13	1.7
<i>Total</i>	786	100.0

Concerning the ethnic background of the respondents, the majority 561 (71.4%) were Afar, and followed by members of Argoba and Amhara ethnic groups accounting for 12.1% and 10.3% respectively. Argoba special district is predominantly occupied by the Argoba ethnic group representing 12.1% of the survey population. Moreover Amhara, Oromo, Woliata, Kambatta and Hadiya have also significant number of residents in the project area.

**Table 7: Educational Status of Respondents**

<i>Educational Status</i>	<i>Frequency</i>	<i>Percent</i>
<i>Illiterate</i>	638	81.2
<i>Able to read and write</i>	15	1.9
<i>Grade 1-8</i>	110	14.0
<i>Grade 9-12</i>	21	2.7
<i>12+</i>	2	.3
<i>Total</i>	786	100.0

Needless to say that education is the gateway to women's empowerment. It also enhances women awareness to fight against poverty, build confidence, empower them in decision making, influences their reproductive patterns and increases child survival chances through antenatal and postnatal care utilization.

The survey asked each woman about access to formal schooling women's literacy status and highest grade achieved among those who had formal education. From the total number of 786 respondents, 638 (81.2%) are illiterate (have no education at all), while only 110 (14%) of the respondents have attended from grade 1 to 8. This has also a programmatic

implication for AMREF in order to design focused and friendly information, education and communication tools. In the field from the discussion with project team we have learnt that there are best practices which AMREF has introduced to prevent malaria and other communicable diseases through participatory malaria prevention tools, which can be adapted to other programmes.

**Table 8: Distribution of Respondents by Religion, August 2009, Afar**

<i>Religion</i>	<i>Frequency</i>	<i>Percent</i>
<i>Muslim</i>	709	90.2
<i>Orthodox</i>	68	8.7
<i>Protestant</i>	7	.9
<i>Catholic</i>	2	.3
<i>Total</i>	786	100.0

As it is indicated in the table above, the majority of the residents in the zone (90.2%) were followers of Islam religion, which is consistent with several previous studies such as DHS, and Census 2007; followed by Orthodox Christianity (8.7%) and protestant Christianity. Religious diversity is more observed in urban centres and areas of mechanized farms as a result of labour influx from the central highlands of the country. Thus, AMREF's intervention needs to be consistent with the religious values of the community in the districts.

## **5.2. Reproductive Health**

Respondents were also asked whether they had a pregnancy-related problem during their last pregnancy. Accordingly, about one-third (32.6%) of the respondents responded that they had some sort of pregnancy related problems during their last pregnancy. The types of complications during the last pregnancy are indicated in the following table.

**Table 9: Types of Pregnancy Related Problems during Last Pregnancy, Afar Ethiopia**

<i>S#</i>	<i>Type of complication</i>	<i>Number</i>	<i>Percent</i>
<i>1</i>	<i>Vaginal bleeding</i>	41	16.1%

2	<i>Severe vomiting</i>	63	24.8%
3	<i>Leg and facial swelling</i>	92	36.2%
4	<i>Abortion/miscarriage</i>	16	6.3%
5	<i>Other problems (Malaria, Kidney disease, gastritis, loss of appetite)</i>	44	17.2%
	<i>Total</i>	256	100%

Regarding the number of respondents who sought treatment for pregnancy related problems, about 200 (78.4%) of the respondents with history of pregnancy related problems reported that they have sought treatment. Of those who sought treatment, 58 (29%) of the respondents sought it from health post, while 93 (46.5%) of the respondents sought treatment from health centres. Only 28 (14%) of the respondents sought treatment from private clinics. Of all informants with history of pregnancy related problems, 19 (9.5%) of them sought treatment from hospital. It is found that only 2 (1%) of the respondents from those with pregnancy related problems were visited by a Health Extension Worker at their home.

In relation to this, the major reasons mentioned for not seeking treatment among those informants with pregnancy related problems had been lack of money for medication, long distance from the health facility and lack of trust in the health services, which is 27 (57.4%), 8 (17%) and 6 (12.8%) respectively. The other factors mentioned by respondents were unwillingness of their partners (4.3%), lack of awareness and the availability of traditional way of treatment as an alternative means.

When they were asked whether they attended the antenatal care, including the number of ante-natal care visits they made during the last pregnancy, 42.7% of the mothers with history of pregnancy did not make any visit at all for ANC, while the rest 57.3% made a visit only once. Of those mothers with ANC visits, 54.2% and 37.6% of them received ANC services from health centres and hospitals respectively. In accordance with this, the role of Traditional Birth Attendants (TBAs) seems to be very minimal that only 3 mothers have attended ANC at their home by TBAs.

Lack of knowledge about ANC has been cited to be the main reason for not attending ANC services by 124 (36.7%) of mothers. The other additional reasons mentioned by respondents

were lack of money (26.6%), long distance from the health facility (14.5%) and lack of trust on the service (14.5%). Hence, creating awareness about ANC and developing trust on the quality of health services along with improving access should be the key priority areas to be concerned.

According to the findings of the baseline assessment, 282 (36%) of the respondent mothers have given birth during the past 12 months, while 208 (26.6%) had given birth within the past 12-24 months. Generally, about 78% of the respondents have given birth during the last 3 years. Surprisingly, the majority of women 721 (92%) have delivered their last child at their own home. Of these home deliveries, 90% of them were attended by a traditional birth attendant (both trained and untrained).

When respondents were asked about complications related to delivery during their last delivery, about one-fifth 165 (21%) of the respondents reported that they had faced certain problems. The most commonly reported problems were excessive vaginal bleeding (28.4%), retained placenta (10.5%), and prolonged labour<sup>1</sup> (47.5%). The remaining less frequently reported complications were premature rupture of membrane, altered consciousness, and anaemia. One hundred ten (67.1%) mothers with a delivery related problem have sought treatment for their problem. Lack of enough money, long distance from the health facility and lack of trust on the quality of the health services were the major reasons for not seeking treatment for delivery related problems.

Among those mothers who were interviewed about their last delivery, 764 (97.2) of them had simple vaginal delivery (SVD), while 19 (2.4%) had delivered by caesarean section. The outcome of delivery for 752 (95.7%) of the mothers was normal and alive newborn child.

Sixty nine (8.8%) of the informant mothers have reported that they were pregnant at the time of interview. When these pregnant mothers were asked about their plan related to delivery, they have given different responses. Their responses are displayed in the following table.

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<sup>1</sup> On average more than 10/12 hours of labour

**Table 10: Plan of Pregnant Mother Related to Delivery**

<i>S#</i>	<i>Type of plan</i>	<i>Number</i>	<i>Percent</i>
<i>1</i>	<i>I have got money ready at hand</i>	<i>10</i>	<i>14.5</i>
<i>2</i>	<i>I will prepare money for transportation</i>	<i>5</i>	<i>7.2</i>
<i>3</i>	<i>I have planned to be attended by TBA</i>	<i>23</i>	<i>33.3</i>
<i>4</i>	<i>I have planned to deliver at health facility</i>	<i>12</i>	<i>17.4</i>
<i>5</i>	<i>Food preparation</i>	<i>6</i>	<i>0.8</i>
<i>6</i>	<i>Nothing</i>	<i>23</i>	<i>2.9</i>

In respect to women's health seeking behaviour during delivery or any other illness, most of the participants of Focus Group Discussions (FGD) underlined that they have no negative attitude or hatred towards the health services. Besides that, some of them even appreciate the relevance of modern health services, and argued that it is much preferable than the traditional way of treatment. In relation to this, the major factors adversely affecting women's health seeking behaviour in addition to lack of awareness have been lack of decision making power or influence for women on households' property, and lack of their own income or property that could be sold or exchanged in the market.

The participants of FGD further underlined that almost all decisions have been made by husbands among the Afar including women's right to travel to health facilities and other places outside their homes. As a result, there could not be any money or cash savings in the hand of women, which could be used in need of medication unless they obtained from their own husbands. The only property within households that could be used without the approval of their husbands is milk and its products, which could not satisfy even the need of their respective households at the existing condition due to recurrent drought in the area.

In fact, there is a tradition of giving domestic animals like a goat, heifer or lactating cow as a gift for newly marrying girls by their parents and relatives during their wedding day even though it has been gradually fading away through time. Those women who received such animals from their parents or relatives would have better chance to sale them in need of medication than others. In accordance with this, great effort was made to know why the majority of women were not seeking treatment especially for delivery during focus group discussions.

As most of the participants of FGD underlined, one of the reasons for not seeking treatment in health facilities for delivery is that they are not comfortable to be assisted by male health professionals. Because this contradicts their religious belief stating that “a wife’s sexual organ should not be seen by any one under any circumstances except her husband”. On the contrary, however, they would be comfortable with delivery assistance given by midwives and other female health professionals the same as they often assisted by TBAs during delivery.

The other factors adversely affecting seeking treatment for delivery have been lack of adequate transportation services crossing most of the K’ebeles outside the high way to Djibouti, lack of delivery services in most of the health posts, lack of adequate trained health practitioners and lack of trust and confidence on the knowledge and capacity of Health Extension Workers especially in giving delivery assistance and curative services.

The officers of Woreda health offices added that frequent staff turnover, lack of ambulances in most of the Woredas and lack of adequate budget for maintenance, and to cover fuel cost for their Motor Cycles and vehicles have been additional problems facing the Woredas

Regarding the location of health centres in the study area (Gabi zone), almost all of them are located at a Woreda Capital except one health centre in Amibara Woreda, and which have been very far from many K’ebeles in each Woreda. For instance, some of the K’ebeles in Dulasa and Burumudiytu Woredas on the other side of Awash River are located in a far distance of more than 60 kilo meters from their respective Woreda capital on average.

On the other hand, the participants of FGD were further probed about other factors that threaten the health of women. With regard to this point, the most underlining factors that have been exposing the Afar women to various health problems have been lack of adequate nutrition throughout the year, heavy work load, and lack of leisure time because almost all jobs within and outside their households have been performed by women. In other words, the Afar women are over burdened throughout her life because of her multiple roles she is expected to play and her responsibilities in all social, economic and reproductive endeavours.

Those mothers who were not pregnant at the time of this survey were also asked about their future plan related to reproductive health issues. When they were asked whether they would like to have a child in the near future or not, 502 (70%) of them indicated that they need to

have a child. Most of these mothers (89.1%) want to deliver their future child at their home. Thirty eight (6.7%) of these mothers indicated that they would prefer to deliver their future child at a health centre. They were also asked what they would do if they face a problem at the time of labour. They responded to this inquiry in several ways. The responses of these mothers are indicated in the following table.

**Table 11: Household Response for Complicated Labour**

<i>S#</i>	<i>What mothers will do</i>	<i>Number</i>	<i>Percent</i>
<i>1</i>	<i>I will go to the nearest Health centre</i>	<i>345</i>	<i>61</i>
<i>2</i>	<i>I will call TBA to my home</i>	<i>141</i>	<i>24.9</i>
<i>3</i>	<i>I will call HEW to my home</i>	<i>58</i>	<i>10.2</i>
<i>4</i>	<i>Others*(I have no plan in mind, I will do nothing, I don't know what to do)</i>	<i>22</i>	<i>3.8</i>

Apart from this, mothers were asked how many of them had attended a health check-up within the first six weeks of their delivery. Its findings revealed that 177 (22.5%) of mothers had attended a health check-up. The majority of these mothers had attended their health check-up at health post (41.2%) and health centre (40.7%). Only 5% of mothers had attended their health check up by the health extension worker at their home.

### ***5.3. Awareness of Women towards Reproductive Health***

Respondents in this baseline assessment were asked about their awareness on the different components of reproductive health services. One hundred three (13.1%) respondents had indicated that they don't know any of the reproductive health services at all, while the rest 86.9% at least know one of the reproductive health services. The types of reproductive health services mentioned by the respondents are displayed in the following table.

**Table 12: Types of Reproductive Health Services Mentioned by the Respondents, August 2009**

<i>S#</i>	<i>Type of RH Services</i>	<i>Number</i>	<i>Percent</i>
1	Family planning	426	54.3
2	Ante-natal care	334	42.5
3	Delivery care	52	6.6
4	Post-natal care	63	8.0
5	HIV/STI	304	38.7
6	Harmful Traditional practice	621	79.1
7	Abortion	18	2.3
8	Infertility treatment	6	0.8

The major sources of reproductive health information for the respondents include radio (30%), television (8.6%), newspapers (0.9%), friends/neighbours (19.4%), health workers (58%), social workers (19.5%), and religious institutions (1.2%).

Those who reported that they are familiar with family planning methods were further asked about the types of family planning methods they actually know. The types of family planning methods the respondents are familiar with are indicated in the following table.

**Table 13: Types of Family Planning Methods known by Mothers, Afar, August 2009**

<i>S#</i>	<i>Types of FP methods</i>	<i>Number</i>	<i>Percent</i>
1	Injectable	416	93.3
2	Oral contraceptive pills	270	60.5
3	IUCD/IUD	9	2.0
4	Norplant	37	8.3
5	Condom	22	4.9
6	Others	1	0.2

Currently 151 (24%) of mothers reported that they are using family planning methods. Of those who are current users of family planning services, 139 (92.1%) are using injectable, while the rest 12 (7.9%) are using the oral contraceptive pills.

The major reason for not using a family planning among the study participants was that they need to bear a child. This is true for 321 (71%) of the respondents. Other reasons are refusal from their husbands' side (7.5%), religious prohibition (6.2%), and lack of access to the family planning service (7.5%). According to the information we obtained through focus group discussions, the major reason for not using a family planning is lack of awareness/education, and followed by unwillingness of their husbands' and due to the misconception they have towards the family planning methods. Some of the participants of FGD alleged that "once using contraceptives have been started; bearing a child could be problematic because it would affect our fertility. That is why, "some of us prefer to start using contraceptives after we gave birth at least two or three children".

Knowledge of the mothers about health problems that could happen during pregnancy was assessed by asking them to mention those problems that they know. Concerning this question, about 26% of the respondents don't know any of the pregnancy related health problems. The major health problems that could occur during pregnancy, and mentioned by respondents are the following:

- ☞ Vaginal bleeding (28.9%)
- ☞ Severe vomiting (22.9%)
- ☞ Leg and face swelling (33.4%)
- ☞ Abortion/miscarriage (7.6%)

Besides that, about 27.4% of the respondents don't know any health problem that may occur during labour and delivery. The rest 72.6% of the respondents know at least one health problem that could be associated with labour and delivery. The types of health problems that could occur during delivery were indicated by the respondents as follows:

- ☞ Heavy bleeding (36.6%)
- ☞ Retention of placenta (18.9%)

- ☞ Prolonged labour (46.9%)
- ☞ Premature rupture of membrane (6.4%)
- ☞ Severe headache (7.5%)
- ☞ Mental disturbance (2.4%)

The respondents were also asked about the possible health problems that would happen during the post-natal period. Among a total number of respondents, about 36% of the respondents don't know or remember post-natal period problems. However, the remaining respondents were able to mention at least one problem. Among these problems, the major problems mentioned were excessive bleeding (33.9%), high grade fever (20%), altered consciousness (11%) and fistula (1.9%).

Parallel to obstetric problems, mothers were also asked about possible neonatal and post-neonatal period problems. About 35.6% of the respondents don't know/remember any problem during this life period. Those who know at least one has mentioned the following ones:

- ☞ Failure to suck breast milk (31.6%)
- ☞ Unable to cry (16.7%)
- ☞ High grade fever (27%)
- ☞ Umbilical cord bleeding (10.3%)

Head of households were assessed for their knowledge about some common health related issues. When they were asked about common complications that occur during pregnancy, 45% of the respondents reported that they don't know any complications that occur during pregnancy. The most commonly known pregnancy related complications by heads of the households are shown below.

**Table 14: Commonly known pregnancy related complications (by Heads of the Households) in Afar**

<i>S#</i>	<i>Types of services</i>	<i>Number</i>	<i>Percent</i>
1	<i>Excessive bleeding</i>	91	21.1
2	<i>Excessive vomiting</i>	64	14.8
3	<i>Facial and leg swelling</i>	112	25.9
4	<i>Abortion/miscarriage</i>	26	6.0

Similarly, heads of the households were asked about complications that could occur during delivery. Accordingly, 43.1% of the respondents reported that they don't know any complication that could occur during labour and delivery.

**Table 15: Commonly known Delivery related complications (by Heads of the Households) in Afar**

<i>S#</i>	<i>Types of services</i>	<i>Number</i>	<i>Percent</i>
1	<i>Excessive bleeding</i>	113	26.2
2	<i>Retained placenta</i>	64	14.8
3	<i>Prolonged labour</i>	147	34
4	<i>Premature rupture of membrane</i>	16	3.7
5	<i>Altered consciousness</i>	34	7.9
6	<i>Mental disturbance</i>	19	4.4

Thirdly, heads of households were also assessed for their knowledge related to complications that could occur during the postnatal period. More than half (53.6%) of the heads of households reported that they don't know any postnatal period complication. The commonly known postnatal period complications are shown below.

**Table 16: Commonly known postnatal complications (by Head of Households) in Afar**

<i>S#</i>	<i>Types of services</i>	<i>Number</i>	<i>Percent</i>
1	<i>Excessive bleeding</i>	104	24.1
2	<i>Very high grade fever</i>	53	12.3
3	<i>Altered consciousness</i>	47	10.9

4	<i>Fistula</i>	18	4.2
5	<i>Others (Anaemia, Malaria, diarrhoea, stomach-ache, tiredness, vomiting, hypertension)</i>	42	5.2

Lastly, heads of the households were asked about neonatal problems. In this regard, 57.4% of head of households don't know any neonatal problems. The types of neonatal problems known by head of households are shown below.

**Table 17: Commonly known neonatal complications (by Head of Households) in Afar**

<i>S#</i>	<i>Types of services</i>	<i>Number</i>	<i>Percent</i>
1	<i>Inability to suck breast milk</i>	82	19.1
2	<i>Failure to produce tears</i>	55	12.8
3	<i>High grade fever</i>	82	19.1
4	<i>Bleeding from umbilical stamp</i>	23	5.3
5	<i>Others (Malaria, Tonsillitis, Diarrhoea, cough, ascaris, abdominal discomfort)</i>	18	2.3

#### **5.4. Malaria**

Respondents were also asked to indicate the symptoms of malaria. The responses indicated that only 4.3% of the respondents didn't know any malaria symptom. The commonly known malaria symptoms are indicated in the following table.

**Table 18: Malaria symptoms known by mother respondents in Afar, August 2009.**

<i>S#</i>	<i>Malaria Symptom</i>	<i>Number</i>	<i>Percentage</i>
1	<i>Fever</i>	550	70.2
2	<i>Headache</i>	524	66.8
3	<i>Chills</i>	535	68.2
4	<i>Loss of appetite</i>	355	45.3
5	<i>Vomiting</i>	357	45.5
6	<i>Rigor</i>	378	48.2

### 5.5. Harmful Traditional Practices

Of all respondents, 689 (88.3%) have at least heard about one of the common harmful traditional practices. Female Genital Cutting (FGC) is known to be the major harmful traditional practice by 674 (96.8%) of the respondents. The other commonly known harmful traditional practices are shown in the following table.

**Table 19: The Commonly Known Harmful Traditional Practices in Afar Region.**

<i>S#</i>	<i>Type HTP</i>	<i>Number</i>	<i>Percentage</i>
1	<i>Extraction of milk teeth</i>	152	21.8
2	<i>Female Genital Cutting</i>	674	96.8
3	<i>Tooth sharpening</i>	84	12.1
4	<i>Abdominal massage</i>	100	14.4
5	<i>Early marriage</i>	126	18.1
6	<i>Marriage by abduction</i>	107	15.4
7	<i>Widow inheritance</i>	28	4.0
8	<i>Others</i>	3	0.4

The study subjects were also asked whether they themselves were circumcised or not. In this regard, from the total number of 786 respondents, 767 (98.1%) of the respondents reported that they are circumcised. Subsequently, they were asked whether their last daughter was circumcised or not, 223 (28.5%) of the respondents has reported that their youngest daughter is circumcised, whereas 559 (71.5%) of the respondents reported that their youngest daughter is not circumcised. This may be due to the fact that some of the youngest daughters are not circumcised, but they may be circumcised in the future. On the other hand respondents may choose to report in a socially desirable manner.

Respondents were also asked to express their views or intentions towards their daughters in the future. One hundred twenty five (16%) of the respondents reported that they would like to see their daughters circumcised in the future, while the rest 84% of the respondents reported that they do not want their daughters to be circumcised in the future. The

investigators don't have any guarantee on the effect of social desirability bias on the responses to such variables.

According to the information obtained from participants of FGD, the practice of FGC has been on declining, and even seems to be totally abandoned mainly due to fearing the legal measures that would be taken against those who practice it such as the traditional circumcisers, parents and even health practitioners. In the existing condition, the law enforcing bodies such as the police, the persecutors and the courts in all Woredas have been taking deterrent legal measures against those who performed FGC. However, there is a rumour indicating that FGC has still been performed in underground especially in certain K'ebeles/areas distant from urban centres/Woreda capitals, and remote and inaccessible areas bordering other zones and regions.

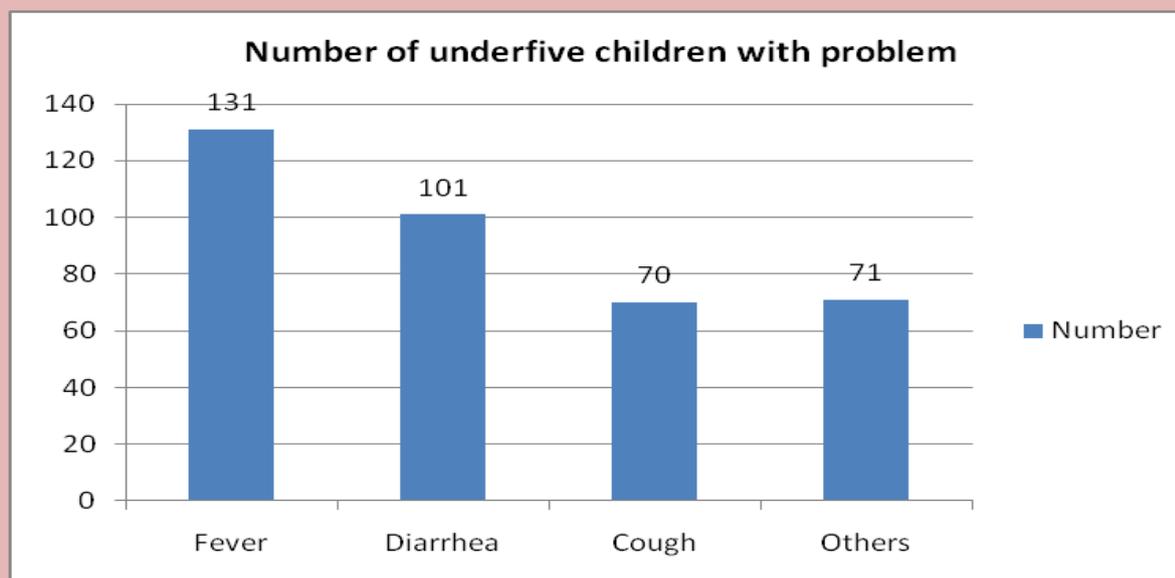
According to the information obtained from the participants of focus group discussions, some of the women are not aware of the harmful effect of FGC on well being of girls and women due to inadequacy of health education and sensitization campaigns. There is also a significant difference in the degree of awareness concerning the health hazards caused by FGC among the women living in areas closer to urban centres/Woreda capital, and in areas far from urban centres. Those women who live in K'ebeles near to a Woreda capital have better awareness about the harmful effect of FGC as compared to women who live in remote areas. In short, the major contributing factors for the existence of better awareness on FGC difference might be the intensity and continuity of education and sensitization works that have been conducted in urban and its adjacent areas.

### ***5.6. Child Health Situation***

From the total number of 786 respondents, almost all (99.4%) of the respondents have at least one child. The number of children in those households ranges from 1 to 11 with mean (standard deviation) of 3.27 (2.0). About 98% of the households have at least one under-five child. The number of under-five children in those households ranges from 1 to 5 with mean (standard deviation) of 1.59 (0.776).

Of all the households having children under- five, 274 (35.5%) had under-five children with sickness during the last two weeks. In simple language, the incidence of any under-five child mortality during the last 2 weeks was 35.5%. The symptoms of morbidity among those under-five children are shown in the following figure.

**Figure 1: Number of Under-five Children with Symptoms during 2 weeks preceding the Survey.**



Of those who had an under-five children with morbidity during the last two weeks, 224 (81.8%) had sought medical treatment. Among these, 46.3% of children sought treatment from health post, while 34.8% of children sought treatment from health centre. On the other hand, only 1.8% of children sought treatment from the traditional healers. Among those children who sought treatment, the duration between the time of illness and seeking treatment was less than 24 hours for 40.2%, while it is more than 24 hours for 59.8% of those who sought treatment.

With regard to the immunization status of the youngest child, 513 (66.3%) had got their youngest child immunized. Among these children, 35.7% of children were fully immunized. One-fifth (20.5%) of children were immunized for their age, while 43.9% of children are not immunized for their age.

When one takes into account the growth monitoring of under-five children, 135 (17.7%) of children had an event of growth monitoring services. About 30% of the under-five children have been treated in a health facility during the last one month.

Regarding face washing of the under-five children, only 30% of the respondents reported that they wash three times a day, while 20% of the respondents wash only in the mornings. About 43.2% of the respondents wash the face of their under-five children with water only, whereas 56.8% of the respondents use soap to wash the face of their children.

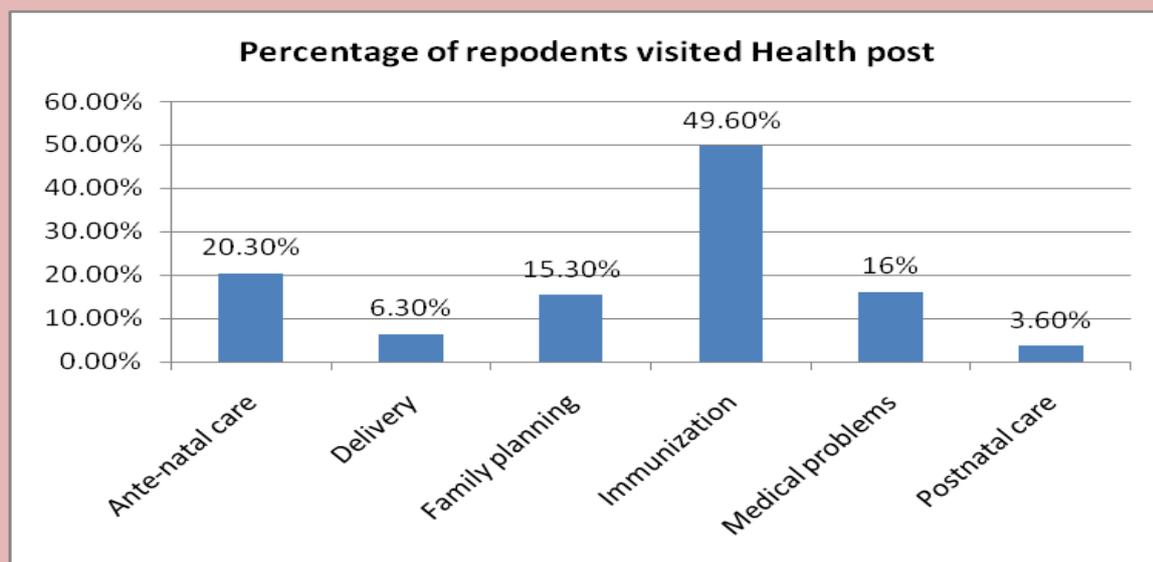
### 5.7. Maternal and Child Health Services

Asked about the presence of a health post in their surrounding, 664 (84.6%) of the respondents reported that they had a health post in their surrounding area. About 92% of those who reported that they had a health post in their surrounding also added that the health post is functional.

Most of the respondents 412 (62.3%) indicated that it takes less than half an hour to reach the health post and get back. For 14.8% and 13.5% of the respondents, it takes 30 minutes to one hour and one to two hours respectively. It is only for 6% of the respondents that it takes more than three hours to reach to and get back from the nearby health post. In connection to this, a large number of health posts have been under construction in various places in all Woredas under this study as the participants of FGD expressed. Nevertheless, there is no adequate health services, well trained health professionals, sufficient drugs and medical equipments except tablets of malaria and drugs of a few other diseases within the health posts even though they are located at close distance to local community as compared to the health centres.

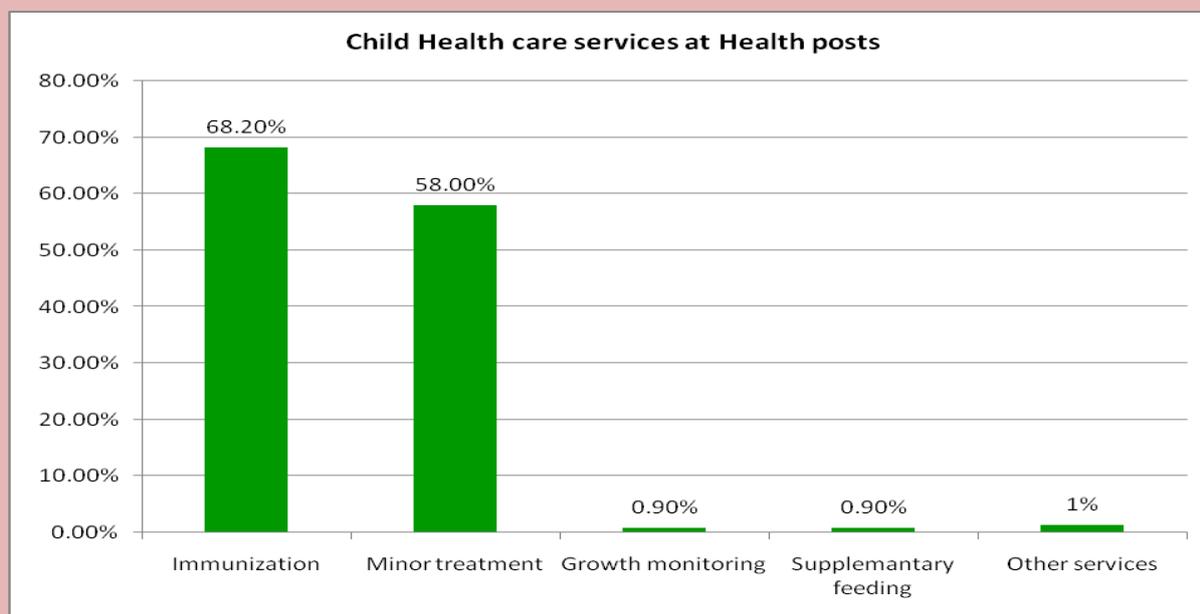
About 424 (64%) of the respondents reported that they have ever visited the health post to seek any kind of health services. Respondents who have ever visited the health post were also asked about the type of service they received from the health post at the time of their visit. Accordingly, the types of services ever received by the respondents are displayed in the following graph.

**Figure 2: Types of services received by respondents from Health posts in Afar**



About 427 (61.5%) of the study subjects reported that they have taken their child to the nearby health post for medical advice and/or treatment. The kind of services provided to children are reported by the respondents are shown in the following graph.

**Figure 3: Types of child health care services provided to children at health posts in Afar**



Two hundred and two respondents (25.8%) reported that they have been visited by a Health Extension Worker in the last 3 months preceding this baseline assessment. The rest three-fourth of the households hasn't been visited by a health extension worker during the last three months. The kinds of services the Health Extension Worker has provided at the time of visit are presented in the following table.

**Table 20: The types of Health services provided by Health Extension Worker during house visit in Afar**

S#	Types of services	Number	Percent
1	Health Education	103	51.8
2	Ante-natal care services	12	6.0
3	Delivery care services	7	3.5
4	Postnatal care services	2	1.0
6	Family Planning	8	4.0
7	Immunization	96	48.2
8	Other services	13	7

Nonetheless, the participants of FGD complaining that the Health Extension Workers are not available in their working places most of the time because they always make frequent travel to a nearby town. As a result, they rarely make a house to house visit let alone to give them health education within their houses. Even though this was not confirmed by other body, some of the heads of Woreda Health Offices argued that the HEWs might be out of their working sites especially due to lack of living rooms and water in the premises of their respective health posts, and other unfavourable conditions for living in the area.

As it is reported by 460 (58.9%) of the respondents, the estimated distance of the nearby health centre from their place of residence is more than 5 kilo meters. For one-fifth (20.2%) of the respondents the health centre is about one kilo meter away from their residence.

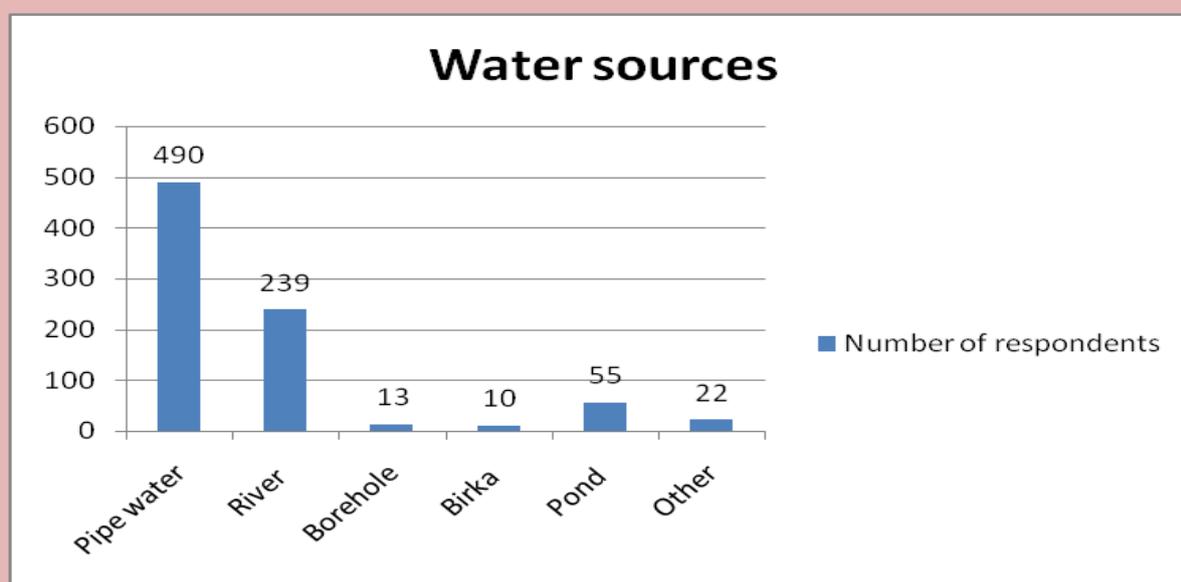
Respondents were also asked whether they were satisfied with the health services that they received from the health service facility they visited. Based on the findings of this assessment, only 398 (50.7%) of the respondents are satisfied with the health services they received from the health facilities. It is evident from this assessment that half of the respondents are not satisfied by the services they received from the health facility they visited.

## ***6. Water Supply, Personal Hygiene and Environmental Sanitation***

The main sources of water for the study communities were pipe water (62.5%) and river water (30.4%). Other less frequently used sources of water were ponds, boreholes and Birkas. The number of households using these sources is displayed in the following table. According to the discussion we had with Woreda health officials and our personal observations, most of the rural inhabitants have no access to safe water with a pipe line as it is indicated above. The survey came up with a high percentage of people using pipe water was due to a higher sample size taken from both urban and the K'ebeles closer to urban centres based on the number of their population size, and because of the inaccessibility of several rural K'ebeles as a result of heavy rain especially during survey time. For instance, most of the K'ebeles across the Awash River in Burumudaitu and Dulesa Woredas were excluded before sampling due to such reasons.

**Table 21: Access to WATSAN Afar and Ethiopia**

	Access to safe water		HHs access to excreta disposal (coverage)
	Rural	Urban	
<b>Ethiopia</b>	53.9	86.2	37
<b>Afar</b>	53.1	77.4	3

**Figure 4: The distribution of households by sources of water in Afar, August 2009**

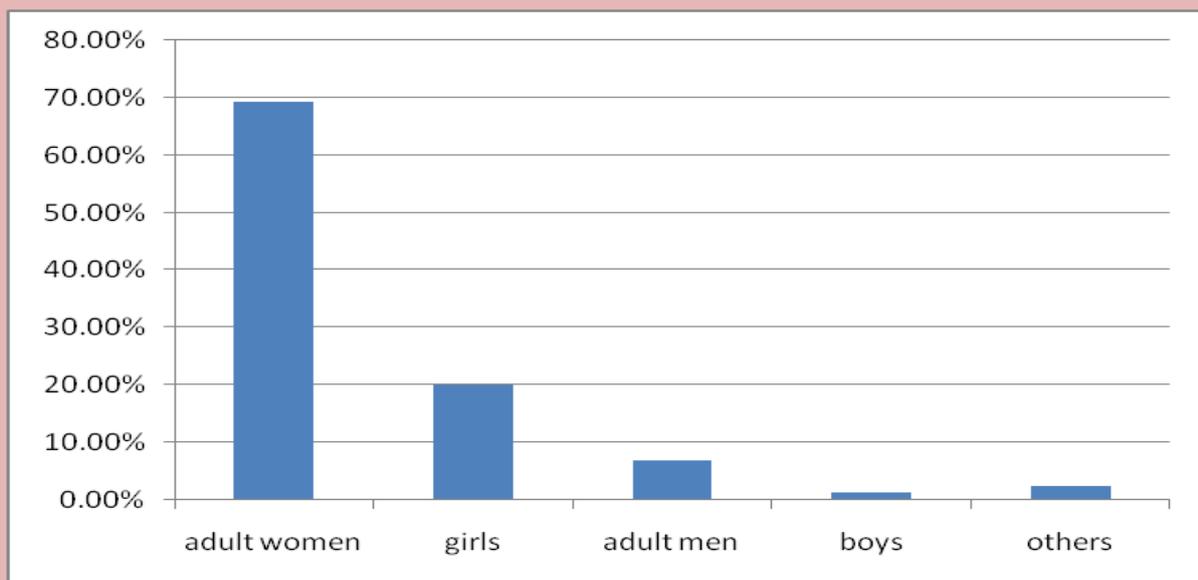
Regarding the time taken to fetch water, it takes less than 30 minutes for most of the respondents (78%). For the rest (9.7%) of the respondents it takes from 30 minutes to one hour for the round trip.

**Table 22: Time taken to fetch water (round trip) in zone 3**

Time taken to fetch water (Round Trip)	Number	Percent
<i>Less than 30 minutes</i>	610	78.0
<i>30 min - 1 hr</i>	76	9.7
<i>1-2 hrs</i>	55	7.0
<i>2-3 hrs</i>	24	3.1
<i>more than 3 hrs</i>	17	2.2
<b>Total</b>	782	100.0

They were also asked to mention the person who fetches water in most of the times. This study had indicated that adult women were the major ones who are responsible to fetch water as 544 (69.4%) of the respondents underlined. This is followed by girls that account for 157 (20.0%) of the respondents. In general terms, fetching water is the responsibility of females as 90% of the respondents confirmed. The total distribution of who fetches water in most of the times is shown in the following figure.

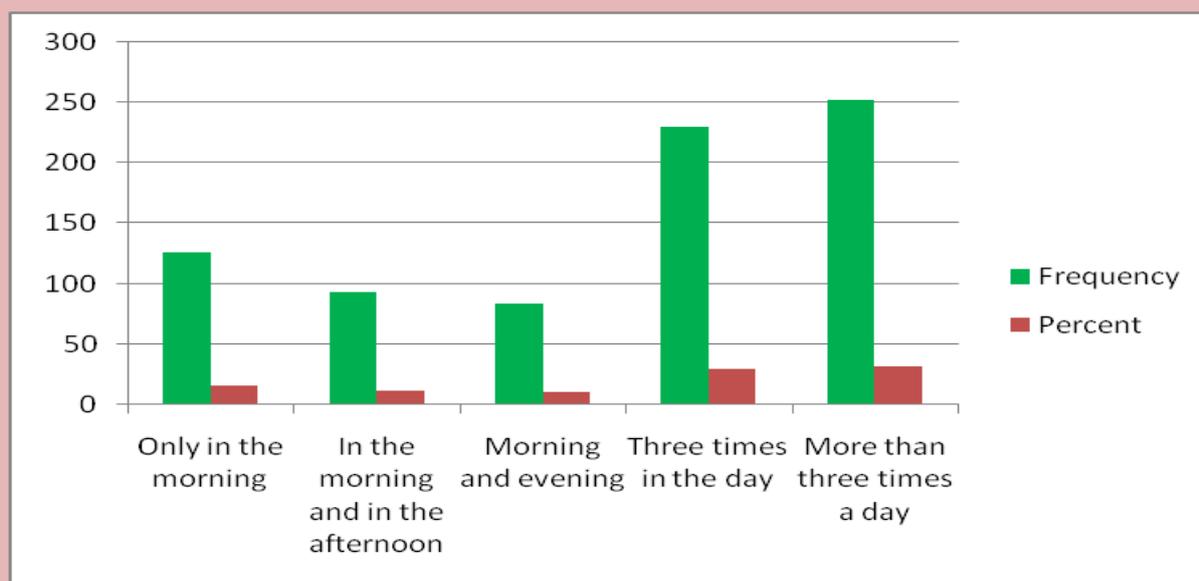
**Figure 5: Persons responsible for fetching water in most of the times in Afar, August 2009.**



Regarding communities practices in Afar to protect/treat drinking water, this study indicated that 342 (43.6%) of the respondents do nothing to treat drinking water. The rest 400 (51.0%) of the respondents treat drinking water with “wuha Agar.” Other less commonly used methods by respondents include boiling and filtering.

As indicated in this study, 633 (80.5%) of the respondents claim that they get adequate water for their daily consumption. This might be due to adaptive lifestyle within the pastoralist way of life style. The belief of the study subjects in the role of personal, family and environmental hygiene in the health of children was measured in a likert-scale. The results has shown that 511 (65.0%) and 247 (31.4%) of the respondents reported as important and very important respectively. The times during which respondents wash their faces are shown in the following figure.

**Figure 6: The times during which respondents wash their faces (Afar, August 2009)**



In most of the cases, respondents use only water to wash their hands as indicated by 417 (53.1%) of the respondents, while the rest 369 (46.9%) of the respondents use both water and soap to wash their hands. Hand washing behaviour during critical times shows that 47.5% of the respondents wash their hands before and after meal, while 45.7% of the respondents wash their hands before and after meal as well as after using toilet.

Assessment of ownership of latrine at household level indicates that only 94 (12.0%) of the households have a latrine for the family, while the rest 88% uses open field human waste disposal. The most common type of latrine used is pit latrine with slab as indicated by 75 (80.6%) of the respondents. Most of the rest types of latrines reported were Ventilated Improved Pit (VIP) latrines (11.8%).

Assessment of the level of utilization of the available latrines shows that most (69.1%) of the latrines are used always, while 29.8% of latrines are used in most of the times. Those who don't have latrine use open field at 98.8% of the times, but a few others share latrine from their neighbours.

## 7. Health Facility Assessment Report

### Introduction

The overall health status of the Afar population is poor, with women and children particularly vulnerable to poor health. The maternal mortality (720/100,000) and under-five child mortality (229/1,000) doubles the national average. The region has a high rate of population growth (2.2%), a TFR of 4.9 children per women and a corresponding highest crude birth rate of 37.3 births per 1000 population in 2005<sup>2</sup>. Women have a particularly low status, undermining efforts to improve reproductive health, face heavy workloads, are exposed to severe risks during pregnancy, delivery as well during postnatal period, and are unable to control safe sexual practices with partners, increasing their vulnerability to HIV and AIDS. Traditional practices, including FGM (94.5% in Afar) pose human rights and public health concerns. Low uptake of contraception and early pregnancy affect maternal health, leading to obstructed labour, vesico-vaginal fistulas & foetal death. Currently there are low utilisation rates of reproductive health services, ANC & PNC (7.3%, 16.1% and 1.2% respectively). Health facility reports indicated that few births<sup>2</sup> (15%) are attended by skilled personnel, while the 2005 DHS indicated that only 6% of births were attended.

### 7.1. Results and Discussion:

#### Demographic characteristics of population served by HFs

S#	District	Total population	CBW (15-49Yrs)	Pregnant women	Non-pregnant women	Under five years children	Under one year children	Under 15yrs children
1	Amibara	57325	13070	1777	11293	5790	1777	24707
2	Awash	32064	7311	994	6317	3238	994	13820
3	Argoba	18888	4306	586	3721	1908	586	8141
4	Burimudaitu	54036	12320	1675	10645	5458	1675	23290
5	Dulesa	22273	5078	690	4388	2250	690	9600
6	Gewane	40212	9168	1247	7922	4061	1247	17331
	Total	224798	51254	6969	44285	22705	6969	96888

<sup>2</sup> Central Statistical Agency (Ethiopia) and ORC Macro. *Ethiopia Demographic and Health Survey 2005*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro. 2006.

2. Sources: Ethiopia: PASDEP/World Bank report on health status 2005. Afar data: regional health department, 2005.

**Number and distribution of Health Facilities**

S#	District	Hospital		Health centre		Developing Health Centre		Health Posts		Private HF's	
		#	#functioning	#	#functioning	#	#functioning	#	#functioning	#	#functioning
1	Amibara	1*	0	1	1	0	0				
2	Awash	0	0	1	1	0	0	5	5	12	12
3	Argoba	0	0	1*	0	1	1	6	6	0	0
4	Burimudaitu	0	0	1	1*	1	1	3	3	0	0
5	Dulesa	0	0	1	1&1*	0	0	10	10	0	0
6	Gewane	0	0	1	1	0	0	7	7	2	2
	Total	1*	0	5&1*	4&2*	2	2				

\* Under construction

**Access population served per facility**

	Hospital	Health Center	Health post	Private HF's
MoH Recommendation		1:25,000	1:5000	N/A
Population served	N/A	1: 37,468	7252	1:16,058

Currently it seems that access to health facilities is relatively growing. Yet given the geographical distance and way of life the MoH standard might not reflect practical reality at the ground. Thus, the gap is still high.

**Ten top leading causes of morbidity in Gebe zone.**

<i>S#</i>	<i>Amibara</i>	<i>Gewane</i>	<i>Burimudaitu</i>	<i>Dulesa</i>	<i>Argoba</i>	<i>Awash Fentale</i>
<i>1<sup>st</sup></i>	<i>Malaria</i>	<i>Malaria</i>	<i>Malaria</i>	<i>Malaria</i>	<i>Malaria</i>	<i>Malaria</i>
<i>2<sup>nd</sup></i>	<i>DDs</i>	<i>URTI</i>	<i>IP</i>	<i>URTI</i>	<i>RTI</i>	<i>URTI</i>
<i>3<sup>rd</sup></i>	<i>Bronchitis</i>	<i>Pneumonia</i>	<i>DDs</i>	<i>UTI</i>	<i>Common cold</i>	<i>IP</i>
<i>4<sup>th</sup></i>	<i>Gastroenteritis</i>	<i>Diarrhoea</i>	<i>Pneumonia</i>	<i>Pneumonia</i>	<i>Gastritis</i>	<i>Pneumonia</i>
<i>5<sup>th</sup></i>	<i>Skin infections</i>	<i>UTI</i>	<i>STI</i>	<i>Diarrhoea</i>	<i>STIs</i>	<i>DDs</i>
<i>6<sup>th</sup></i>	<i>URTI</i>	<i>Dyspepsia</i>	<i>Typhoid Fever</i>	<i>IP</i>	<i>Anaemia</i>	<i>Skin Infections</i>
<i>7<sup>th</sup></i>	<i>Anaemia</i>	<i>Eye Diseases</i>	<i>UTI</i>	<i>Conjunctivitis</i>	<i>DDs</i>	<i>Soft tissue injuries</i>
<i>8<sup>th</sup></i>	<i>Typhoid Fever</i>	<i>Anaemia</i>	<i>Anaemia</i>	<i>STIs</i>	<i>IP</i>	<i>HIV&amp;AIDS</i>
<i>9<sup>th</sup></i>		<i>Skin infection</i>	<i>URTI</i>	<i>Amobiasis</i>		<i>Gastroenteritis</i>
<i>10<sup>th</sup></i>		<i>Ear disease</i>	<i>Dyspepsia</i>	<i>TB</i>		<i>Anaemia</i>

NB. Data for some districts were incomplete, not timely and without actual figures.

In all districts malaria is reported to be the leading cause of morbidity, while upper respiratory tract infections are the second major cause of morbidity. In most cases intestinal parasites, diarrhoea and DDs found to affect most people. HIV, STIs and UTIs are also among top ten causes of morbidity 5 districts. The inconsistency of statistics is a good indicator of underdeveloped HMIs in the zone.

**Basic Emergency Obstetric Care Service**

There is a functional unit in Awash Health Centre, which during the survey was not providing service due to lack of gynaecologist. The health centre is equipped with all the necessary supplies and equipments for BEOC. Maternal waiting rooms are also under construction. Thus, the ratio is **1:224,798** and in extremely distant districts. For instance, it is practically impossible for mothers in Argoba and Dulesa to receive service from Awash Health Centre.

**MCH Services**

Given the level of training and expected services from the facilities, the following institutions can deliver child health services. There are only 7 midwives who provide MCH services like ANC, PNC, EPI, and FP which covers only 50% of the health centres.

<i>S#</i>	<i>District</i>	<i>HO/BSc Nurse</i>	<i>Midwives</i>	<i>Nurses</i>	<i>HEWs</i>
<i>1</i>	<i>Amibara</i>	<i>1</i>	<i>1</i>	<i>11</i>	
<i>2</i>	<i>Awash</i>	<i>6</i>	<i>5</i>	<i>16</i>	<i>12</i>
<i>3</i>	<i>Argoba</i>	<i>1</i>	<i>0</i>	<i>2</i>	<i>11</i>
<i>4</i>	<i>Burimudaitu</i>	<i>1</i>	<i>0</i>	<i>5</i>	<i>9</i>
<i>5</i>	<i>Dulesa</i>	<i>1</i>	<i>0</i>	<i>10</i>	<i>11</i>
<i>6</i>	<i>Gewane</i>	<i>1</i>	<i>1</i>	<i>11</i>	<i>9</i>
	<i>Total</i>	<i>11</i>	<i>7</i>	<i>55</i>	<i>52</i>

**Maternal health indicators**

<i>S#</i>	<i>District</i>	<i>FP</i>	<i>ANC</i>	<i>Assisted delivery</i>	<i>PNC*</i>	<i>TT<sub>2</sub><sup>+</sup>P</i>	<i>TT<sub>2</sub><sup>+</sup>NP</i>
<i>1</i>	<i>Amibara</i>	<i>4.8%</i>	<i>52%</i>	<i>3.4%</i>	<i>58%</i>	<i>4.9%</i>	<i>18.6%</i>
<i>2</i>	<i>Gewane</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>3</i>	<i>Burimudaitu</i>	<i>3.3%</i>	<i>29%</i>	<i>NDA</i>	<i>10%</i>	<i>NDA</i>	<i>NDA</i>
<i>4</i>	<i>Dulesa</i>	<i>3%</i>	<i>38%</i>	<i>0</i>	<i>7%</i>	<i>28%</i>	<i>6%</i>
<i>5</i>	<i>Argoba</i>	<i>&lt;1</i>	<i>13%</i>	<i>&lt;1%</i>	<i>NDA</i>	<i>5.8%</i>	<i>1.4%</i>
<i>6</i>	<i>Awash Fentale</i>	<i>23%</i>	<i>35%</i>	<i>18%</i>	<i>33%</i>	<i>54%</i>	<i>76%</i>

- PNC is calculated among the delivery cases. NDA: no data available.

***HIV/AIDS Services***

Only 33% of the eligible health facilities provide ART and PMTCT services (Awash and Werrer). Proportion of health centres providing HIV/AIDS services is 100% that all health centres have a functional VCT/PIHCT services.

	<b>% VCT service providing facilities</b>	<b>% PMTCT service providing facilities</b>	<b>% ART service providing facilities</b>	<b>PMTCT service</b>	<b>HIV prevalence</b>
<b>Ethiopia</b>	60	54.2	10	52.7	
<b>Afar</b>	100	20.6	10	34.3	1.9

***Kebeles with trained health extension workers***

<b>S#</b>	<b>District</b>	<b>No of Kebeles</b>	<b>HEWs</b>	<b>2 per kebele (MoH standard)</b>
1	Amibara	19	22	58%
2	Awash	6	12	100%
3	Argoba	13	11	42%
4	Burimudaitu	16	9	31%
5	Dulesa	11	11	50%
6	Gewane	9	9	50%

***Proportion of Woreda office with plan***

<b>S#</b>	<b>District</b>	<b>Satisfactory</b>	<b>Poor</b>	<b>None</b>
1	WoHO	3/6 (Awash & Argoba, Amibara)	2/6 (Gewane, Dulecha)	1/6 (Burimodaitu)
2	WoWO	Awash	Argoba, Dulecha, and Amibara	

***Woreda plan includes FGC prevention as priority***

<i>S#</i>	<i>District</i>	<i>Proportion</i>
<i>1</i>	<i>Indicated FGC specifically</i>	<i>50%</i>
<i>2</i>	<i>HTPs</i>	<i>100%</i>

**Community-based Health Management Information System and Referral System**

Community based HMIs is zero percent (none of the kebeles have CBHMIS). Even in the functional health posts, there is no institutionalized referral system channelled between the health posts and the health centres. A number of health posts reported that they don't formally refer patients to health centres. Instead they verbally inform them to go to health centres. But with regard to health centres, established referral system is existent between health centres and a hospital, which seems to be 100% institutionalised referral system because all health centres formally refer patients to hospitals.

## **8. Conclusion**

The findings of baseline survey on mothers and children health has a considerable importance for researchers, policy makers and service providers. Besides that, the findings of the baseline survey will serve as a bench mark for health related program interventions of AMREF in Awash Fantale, Amibara, Argoba, Burumudaytu, Dulesa and Gewane Woredas. According to the findings of the baseline survey, a significant number of women have low educational status in all target Woredas. Several studies indicate that education, child survival and the living condition of a household are highly correlated.

Moreover, educated women are more likely to seek treatment in modern health facilities, and use family planning, improved personal and environmental sanitation, and fight against harmful traditional practices, amongst others. Therefore, promoting women's awareness especially on reproductive and other health issues helps women to seek treatment in modern health facilities, to use family planning, and to reduce the magnitude of problems related to environmental sanitation, personal hygiene as well as harmful cultural practices.

On the other hand, the wellbeing of household members, especially under five children depends mainly on improved hygienic practices and sanitation of mothers, and access to safe water. The findings of the baseline survey indicted that the target communities in the study areas are disadvantaged in terms of social services and infrastructural facilities as compared several areas in other regions. Consequently, the majority of households have not yet started to use toilets for their waste disposal as compared to many areas in the country. To reverse this situation and to maintain good health in the area, on the one hand effective environmental health education should be provided to all community members, particularly to women on continuous basis. On the other hand, AMREF should increase the number of boreholes that would be dugout in the coming fiscal years.

The findings of the baseline survey indicated that the major sources of reproductive health information for women have been health professionals, friends/neighbours, social workers, radio, television, religious institutions, participating in workshops and others even though the number of women using the reproductive health services such as ANC, PNC, family Planning, delivery and others is very low. In relation to this, the major reason for not seeking delivery and other treatments in health institutions were unwillingness to be assisted by male health professionals, lack of knowledge and awareness about the services, lack of money for medication, lack of access to services, long distance from the health facility, lack of trust in the health services,

unwillingness of their partners, the availability of alternative traditional way of treatments, and others.

On the other hand, the respondents are aware of some of the traditional harmful practices such as FGC, extraction of milk teeth, early marriage, marriage by abduction, abdominal massage, tooth sharpening, widow inheritance and others, which are common in their area. However, the education and trainings provided to enhance the awareness of the community towards the harmful traditional practices did not bring the expected result. This might be due to deeply rooted cultural factors or the inadequacy of trainings and sensitization workshops, which lacks continuity and commitments.

### ***9. Recommendation***

The following recommendations are suggested to improve the health and wellbeing of the communities in the target Woredas.

- ✍ The findings of the baseline survey indicated that various factors affect women's seeking treatment and delivery in modern health facilities. To reverse the existing low level of health service delivery, and to increase women's access to reproductive health services in target Woredas, upgrading Health Extension Workers to Midwives and Clinical Nurse positions is very essential. Consequently, AMREF should back the effort made to upgrade the health posts to health centers, and to expand access to the reproductive health services such as ANC, PNC, family planning, VCT, PMTCT, and others, which have been complementary with each other.
  
- ✍ The findings of the baseline survey indicated that the majority of women in the target Woredas were not using the family planning. It is recommended that enhancing the awareness of both women and men towards family planning seems to be very crucial.
  
- ✍ Trainings on Basic Emergency Obstetric Care should be provided to Woreda health staff, and efforts should be made to provide wider coverage of such services. Subsequently, AMREF should pay more attention to build the capacity of the Health Extension Workers through joint implementation of activities and by facilitating access to training opportunities. This would further ensure the sustainability of the project initiatives before the phasing out of the project.

- ✍ Close supervision and monitoring of all activities implemented at project level as well as at grass-roots level need to be strengthened.
  
- ✍ Enough supply of MCH equipments should be in place to provide effective health services.
  
- ✍ Serious effort should also be made to assist fistula victims in having access to medication, and to use their testimony in workshops and training sessions held in relation to Harmful Traditional Practices.
  
- ✍ Great efforts are need in future project to have strong link and working relations with schools because a significant number of young girls are attending schools at the existing time.
  
- ✍ Efforts should be made to maintain the existing strong link and healthy working relations of AMREF with line offices. It is also recommended that mutual support in reproductive health service delivery be explored further.

## 10. References

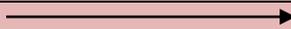
1. Population Reference Bureau 2005, 2005 World Population Data Sheet
2. The Transitional Government of Ethiopia, National Population Policy, 1993, Addis Ababa
3. CSA, and ORC Macro, Ethiopia Demographic and Health Survey (DHS) 2005, September 2006 Addis Ababa and Calverton.
4. Federal Ministry of Health –PPD, 2005, Health Sector Development Program- III

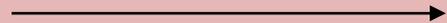


**Part I Socio Demographic Characteristics of the Respondent**

Q No	Question	Responses	Skip To
101	Age in years	_____ Yrs	
102	Religion	1. Muslim 2. Orthodox 3. Protestant 4. Traditional 5. Other (Specify) _____	
103	Ethnicity	1) Afar 2) Amhara 3) Oromo 4) Tigre 5) Guraghe 6) Other (Specify) _____	
104	What is the highest level of education you have attained?	1) None, 2) primary (1-8), 3) secondary (9-12), 4) Higher (above 12)	
105	What is the average Income (per month) of your family?	1) < 300 Birr 2) 301-600 Birr 3) 601-1000 Birr 4) >1000 Birr	
106	How many people (including children and also your selves) live in your household in total?	_____ people	
107	What is your occupation	1. Government employee 2. Housewife 3. Trader 4. Private employee 5. Farmer 6. Pastoralist 7. Daily laborer 8. Other (Specify) _____	
108	What is your marital status?	1. Single 2. Married/ Cohabiting 3. Divorced/ 4. separated 5. Widowed	

**Part II Maternal Health**

Q No	Question	Responses	Skip To
201	When was the last time you got pregnant?	<ol style="list-style-type: none"> <li>1. Less than 1 year ago</li> <li>2. 1 year ago</li> <li>3. 2 years ago</li> <li>4. 3 years ago</li> <li>5. 4 years ago</li> <li>6. &gt; 4 years ago</li> </ol>	
202	Did you have any <u>pregnancy related complication</u> during your last pregnancy?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No </li> </ol>	207
203	If yes what were the complications?	<ol style="list-style-type: none"> <li>1. Vaginal bleeding</li> <li>2. Severe vomiting</li> <li>3. Facial and leg edema</li> <li>4. Other (specify) _____</li> </ol>	
204	If yes, have you sought any medical advice or got treatment for any of the problems you had during the last pregnancy?	<ol style="list-style-type: none"> <li>1) Yes</li> <li>2) No </li> </ol>	206
205	If yes where did you get the advice/treatment?	<ol style="list-style-type: none"> <li>1. Home (TBA)</li> <li>2. Home (HEW)</li> <li>3. Health post</li> <li>4. Health Centre</li> <li>5. Private clinic</li> <li>6. Hospital</li> <li>7. Other (Specify) _____</li> </ol>	
206	If no to Q204, what is the reason why you did not get any advice or treatment?	<ol style="list-style-type: none"> <li>1) The health facility is very far</li> <li>2) Did not have enough money</li> <li>3) Do not trust health system</li> <li>4) My husband was not willing</li> <li>5) Other (Specify) _____</li> </ol>	
207	How many times did you attend ANC in the last pregnancy?	<ol style="list-style-type: none"> <li>1. Not at all </li> <li>2. Once</li> <li>3. Twice</li> <li>4. Three times</li> <li>5. Four times</li> <li>6. &gt;4 times</li> </ol>	209
208	Where did you attend ANC?	<ol style="list-style-type: none"> <li>1. Home (TBA)</li> <li>2. Home (HEW)</li> <li>3. Health post</li> <li>4. Health Centre</li> <li>5. Private clinic</li> </ol>	

Q No	Question	Responses	Skip To
		6. Hospital 7. Other (Specify) _____	
209	If you have not attended ANC in the last pregnancy, what is the reason for this?	1) The health facility is very far 2) Did not have enough money 3) Do not trust health system 4) My husband was not willing 5) Other (Specify) _____	
210	When was your last delivery?	1. Less than one year 2. 1-2 years 3. 2-3 years 4. 3-4 years 5. >4 years	
211	Where did you deliver your last child?	1. Home 2. Health post 3. Health Centre 4. Private clinic 5. Hospital 6. Other (Specify) _____	
212	If home, who attended your delivery?	1) Yourself 2) Family member 3) TBA 4) TTBA 5) HEW 6) Other (Specify) _____	
213	Did you have any of the <u>complications during labor/delivery</u> ? What complications?	1. Yes 2. No 	217
214	If yes, what was the complication?	1. Excessive vaginal bleeding 2. Placental retention 3. Prolonged labor 4. Premature rupture of membranes 5. Unconsciousness 6. Mental problem 7. Other _____	
215	Have you sought any medical advice or got treatment for any of the problems you had during	1) Yes 2) No	

Q No	Question	Responses	Skip To
	labor/delivery?		
216	If no to Q215, why not?	<ol style="list-style-type: none"> <li>1) The health facility is very far</li> <li>2) Did not have enough money</li> <li>3) Do not trust health system</li> <li>4) My husband was not willing</li> <li>5) Other (Specify) _____</li> </ol>	
217	What was the route of delivery for your last pregnancy?	<ol style="list-style-type: none"> <li>1) Vaginal</li> <li>2) C/S</li> <li>3) Other (Specify) _____</li> </ol>	
218	What was the outcome of the delivery?	<ol style="list-style-type: none"> <li>1) Live healthy newborn</li> <li>2) Live newborn with abnormality</li> <li>3) Still birth</li> <li>4) Other (Specify) _____</li> </ol>	
219	Are you currently pregnant?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No </li> </ol>	Skip to Q221
220	If yes, what preparations have you made? Do you have any plan and preparedness for the delivery?	<ol style="list-style-type: none"> <li>1. Have prepared enough money</li> <li>2. Have prepared money</li> <li>3. Planned to deliver with TBA</li> <li>4. Planned to delivery in the nearby health facility</li> <li>5. Other _____</li> </ol>	
221	If not currently pregnant, do you want to have another child any time soon?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No </li> </ol>	Q224
222	Where would you intend to deliver your new baby?	<ol style="list-style-type: none"> <li>1. Home</li> <li>2. Health post</li> <li>3. Health Centre</li> <li>4. Private clinic</li> <li>5. Hospital</li> <li>6. Other (Specify) _____</li> </ol>	
223	What would you do if any complication occurs during labor?	<ol style="list-style-type: none"> <li>1) Go to the nearest health centre</li> <li>2) Call for a health extension worker</li> <li>3) Call fir traditional birth attendant</li> <li>4) Do not have any plan</li> <li>5) Do nothing</li> </ol>	

Q No	Question	Responses	Skip To
		6) Do not know what to do 7) Other (Specify) _____	
224	Have you had any medical check up for your condition with in 42 days after delivery?	1) Yes 2) No	
225	If yes where was the medical check up?	1. Home (TBA) 2. Home (HEW) 3. Health post 4. Health Centre 5. Private clinic 6. Hospital 7. Other (Specify) _____	
226	Would you mention components or services in a RH program?  (Multiple answers are possible)	1) Do not know → 2) Family planning methods 3) Antenatal care 4) Labor related services 5) Post natal care 6) HIV and other STIs 7) Harmful traditional practices 8) Abortion 9) Infertility 10) Other (Specify) _____	232
227	Where do you usually get information about RH ?	1. Radio 2. TV 3. News Paper 4. Neighbors/ friends 5. Health Worker 6. Community meeting 7. Religious institution 8. Other (Specify) _____	
228	If you responded that you know about family planning methods in Q226, what types do you know?	1. Injectables 2. Pills 3. IUD 4. Norplant 5. Condom 6. Other _____	
229	Are you currently using family planning method?	1. Yes 2. No →	231

Q No	Question	Responses	Skip To
230	If yes, which method are you using?	<ol style="list-style-type: none"> <li>1. Injectables</li> <li>2. Pills</li> <li>3. IUD</li> <li>4. Norplant</li> <li>5. Condom</li> <li>6. Other</li> </ol>	
231	If you are not using any, why not?	<ol style="list-style-type: none"> <li>1. My husband is not willing</li> <li>2. My religion prohibits</li> <li>3. I am already pregnant</li> <li>4. I have health problem</li> <li>5. I want to conceive</li> <li>6. I did not get a suitable method</li> </ol>	
232	When would do you say that you have a serious health problem while pregnant? Can you mention some of the major danger signs for obstetric complications during pregnancy?	<ol style="list-style-type: none"> <li>1. I do not know</li> <li>2. Vaginal bleeding</li> <li>3. High grade fever</li> <li>4. Facial and leg edema</li> <li>5. Miscarriage</li> <li>6. Other _____</li> </ol>	
233	When would you say that you are in a serious and dangerous condition while in labor and during delivery? Can you mention some of the major danger signs for obstetric complications during labor and delivery?	<ol style="list-style-type: none"> <li>1. I do not know</li> <li>2. Excessive bleeding</li> <li>3. Placental retention</li> <li>4. Prolonged labor</li> <li>5. Premature rupture of membranes</li> <li>6. Unconsciousness</li> <li>7. Mental problem</li> <li>8. Other _____</li> </ol>	
234	When would you say that you are in a major health risk following delivery? Would you mention the major danger signs for obstetric complications during post partum period?	<ol style="list-style-type: none"> <li>1. I do not know</li> <li>2. Excessive bleeding</li> <li>3. High grade fever (Infection)</li> <li>4. Unconsciousness</li> <li>5. Fistula</li> <li>6. Other _____</li> </ol>	
235	When would you say that your new born child is having a life threatening health problem? Would you mention some of the major danger signs in neonates that is indicative of neonatal complications?	<ol style="list-style-type: none"> <li>1. I do not know</li> <li>2. Failure to suck</li> <li>3. Not able to cry</li> <li>4. High grade fever</li> <li>5. Bleeding from umbilical stump</li> <li>6. Other _____</li> </ol>	

Q No	Question	Responses	Skip To
236	What are the common signs and symptoms of malaria?	<ol style="list-style-type: none"> <li>1. I do not know</li> <li>2. Fever</li> <li>3. Headache</li> <li>4. Chills</li> <li>5. Anorexia</li> <li>6. Vomiting</li> <li>7. Rigor</li> <li>8. Other _____</li> </ol>	

**PART III: HTP/FGC**

Q No	Question	Responses	Skip To
301	Have you heard about (Harmful Traditional Practices) HTP?	<ol style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ol>	
302	Could you mention the HTPs you know?	<ol style="list-style-type: none"> <li>1. Milk teeth extraction</li> <li>2. Female circumcision</li> <li>3. Tooth sharpening</li> <li>4. Abdominal massage</li> <li>5. Early marriage</li> <li>6. Marriage by abduction</li> <li>7. Wife inheritance</li> <li>8. Other _____</li> </ol>	
303	Have you heard about FGC?	<ol style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ol>	
304	Are you circumcised?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	
305	Is your youngest daughter circumcised?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> <li>3. Do not have a daughter</li> </ol>	
306	Would you circumcise your daughter?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	

307	Is personal, household and environmental hygiene important for the health of children and mothers?	<ol style="list-style-type: none"> <li>1) It is very important</li> <li>2) It is important</li> <li>3) I am neutral</li> <li>4) It is not important</li> <li>5) It is not important at all</li> <li>6) I do not know</li> </ol>	
308	How often do you wash your face in a day?	<ol style="list-style-type: none"> <li>1. Not at all</li> <li>2. In the morning only</li> <li>3. In the morning and afternoon</li> <li>4. Morning and evening</li> <li>5. Three times daily</li> <li>6. More than 3 times</li> </ol>	
309	Often times what do you use for washing your face?	<ol style="list-style-type: none"> <li>1) Water only</li> <li>2) Soap and water</li> <li>3) Other (Specify) _____</li> </ol>	
310	How often do you wash your hands in a day?	<ol style="list-style-type: none"> <li>1. Before meal</li> <li>2. After meal</li> <li>3. After toilet</li> <li>4. Any other (specify) _____</li> </ol>	
311	Often times what do you use for washing your face?	<ol style="list-style-type: none"> <li>1) Water only</li> <li>2) Soap and water</li> <li>3) Other (Specify) _____</li> </ol>	

#### **Part IV Child Health**

Q No	Question	Responses	Skip To
401	How many children do you have?	_____ children	
402	How many are less than five years of age?	_____ children	
403	Did any of your under five year old children have any illness in the last 2 weeks?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No →</li> </ol>	408

Q No	Question	Responses	Skip To
404	If yes, what was the illness?	1. Fever 2. Diarrhea 3. Cough 4. Other _____	
405	Did you seek advice or treatment for the illnesses mentioned above?	1. Yes 2. No →	408
406	If yes, Where did you seek advice or treatment?	1) Health post 2) Health centre 3) Private hospital/ clinic 4) Government Hospital 5) Pharmacy 6) Rural drug vendor 7) Traditional healer 8) Other (specify) _____	
407	What was the time interval between the onset of fever and seeking treatment?	1. Less than 24 hours 2. After 24 hours	
408	Is your youngest child immunized?	1) yes 2) No →	410
409	If immunized, what is the Immunization status? (Ask for vaccination card)	1) Fully immunized 2) Immunized for age 3) Not immunized for age 4) Other (Specify) _____	
410	Have any of your under five children been ever weighed by a health professional?	1) Yes 2) No	
411	Has your (under five) child been treated for any illness in a health facility, in the last one month?	1) Yes 2) No	
412	How often do you wash the face of your (under five)	1. Not at all 2. Some times 3. In the morning only	

Q No	Question	Responses	Skip To
	child in a day?	4. In the morning and afternoon 5. Morning and evening 6. Three times daily 7. More than 3 times	
413	Often times what do you use for washing the face of your child?	1) Water only 2) Soap and water 3) Other (Specify) _____	
414	Often times what do you use for washing the hands of your youngest child?	1) Water only 2) Soap and water 3) Water and ash 4) Other (Specify) _____	

**Part V Household Water Source, Personal Hygiene and Environmental Sanitation**

Q No	Question	Responses	Skip To
501	What is the main source of drinking water for the Household?	1) Tap water 2) River 3) Well 4) Birka 5) Spring 6) Other (Specify)	
502	How long does it take to fetch water from there (round trip)?	1) Less than ½ hr 2) ½ hr-1 hr 3) 1-2 hrs 4) 2-3 hrs 5) >3 hrs	
503	Often times who fetches water for the household consumption?	1. Boys 2. Girls 3. Adult men 4. Adult women 5. Other _____	
504	How do you sterilize water at home?	1. I do nothing 2. Boiling 3. Treat the water with chemicals 4. Filtration 5. Other _____	
505	Is the water adequate for your household daily consumption?	1. Yes 2. No	
506	How important is personal, household and environmental hygiene for the health of children?	1. Extremely important 2. Very important 3. Not sure 4. Not important 5. Not at all 6. I do not know	
507	How often do you wash your face in a day?	1. Not at all 2. In the morning only 3. In the morning and afternoon 4. Morning and evening 5. Three times daily 6. More than 3 times	
508	Often times, what do you use to wash your face?	1) Water only 2) Soap and water 3) Other (Specify) _____	
509	How often do you wash your hands?	1. Before meal only 2. After meal only 3. Before and after meal 4. Only after toilet 5. Before and after meal as well as after toilet	

Q No	Question	Responses	Skip To
		6. Other _____	
510	Often times what do you use for washing hands?	1) Water only 2) Soap and water 3) Water and ash 4) Other (Specify) _____	
511	Do you have private toilet facility?	1. Yes 2. No _____ →	515
512	If yes, what kinds of toilet facility do members of your household use?	1) Pitt latrine with out slab 2) Pit latrine with slab 3) Ventilated Improved Pit 4) Other (Specify) _____	
513	How often do members of the family use latrine facility?	1) Not at all 2) Some times 3) Most of the time 4) Always 5) Other (Specify ) _____	
514	If not using toilet, why not?	1. Because of the smell 2. Lack of the culture of using 3. Lack of awareness 4. Other _____	
515	If there is no any toilet facility in the household, where do often times members of the HHs go for disposing human waster	1. Open field of forest 2. On the field and cover it with soil 3. Other _____	

**Part VI Maternal and Child Health Services**

Q No	Question	Responses	Skip To
601	Is there a health post in your village?	1) Yes 2) No	
602	Is it functional?	1. Yes 2. No	
603	How long does it take you to get there (one way trip to the health post)?	1) Less than ½ hr 2) ½ hr-1 hr 3) 1-2 hrs 4) 2-3 hrs 5) >3 hrs	
604	Have you ever visited the health post for Maternal Health service?	1) Yes 2) No	
605	What kind of maternal health services you ever got from the health post?	1. ANC 2. Delivery 3. PNC and follow-up 4. Family Planning 5. Immunization 6. Others (Specify) _____	
606	Have you ever visited the health post for any child related service for your child/children?	1. Yes 2. No	
607	What kinds of child care services are available in the health post?	1. Immunization 2. Under 5 clinic 3. Growth monitoring 4. Nutritional supplementation 5. Others (Specify) _____	
608	Have you ever been visited by health extension worker from the health post?	1. Yes 2. No 	610
609	What type of home based maternal health service did you	1. Health Education 2. ANC	

Q No	Question	Responses	Skip To
	ever get from the health extension health worker?	3. Delivery 4. PNC and follow-up 5. Family planning 6. Immunization 7. Other (Specify) _____	
610	What is the distance between your house and the nearest health centre?	1) Less than 1 km from house 2) 1-2 Km from house 3) 2-5 Km 4) >5 Km	
611	Are you satisfied with the services you are getting from the nearby health facilities?	1. Yes 2. No	

#### **PART VII Questions for the husband**

Q No	Question	Responses	Skip To
701	Do you know the major danger signs for obstetric complications during pregnancy? If yes, mention some	1. I do not know 2. Vaginal bleeding 3. High grade fever 4. Facial and leg edema 5. Miscarriage 6. Other _____	
702	Do you know the major danger signs for obstetric complications during delivery?  If yes, mention some	1. I do not know 2. Excessive bleeding 3. Placental retention 4. Prolonged labor 5. Premature rupture of membranes 6. Unconsciousness 7. Mental problem 8. Other _____	
703	Do you know the major danger signs for obstetric complications during post partum period? If yes, mention some	1. I do not know 2. Excessive bleeding 3. High grade fever (Infection) 4. Unconsciousness 5. Fistula 6. Other _____	
704	Can you mention the major danger signs in neonates that	1. I do not know 2. Failure to suck 3. Not able to cry	

Q No	Question	Responses	Skip To
	are indicative of neonatal complications? If yes, mention some	4. High grade fever 5. Bleeding from umbilical stump 6. Other _____	

**Thank you very much !!!**

## **A Guideline for Focus Group Discussions and Key informants interviews**

Focus groups and key informants interviews are tools for collecting qualitative data. A moderator will follow a predetermined interview guide to direct a discussion with key informants from 5 to 10 people with the purpose of collecting in depth qualitative information regarding the interviewee's and a group's perceptions, attitudes, and experiences on a defined topic. Participants should be typical of the intended population.

### **Introduction**

Good morning/ afternoon (as appropriate). My name is -----and with me is my colleague Mr/Ms/Mrs-----

I wish to welcome you all to this focus group discussion meeting. It is my pleasure to request each one of you to introduce him/herself (introductions are completed).

Thank you for sparing your precious time to come and attend this discussion. Please feel free to participate.

In this discussion, all answers or opinions are correct and shall be recorded in writing. I hope you do not mind if my colleague takes down notes and to tape recorder during the discussion. We are doing this so that we store the information for report writing and future reference. I am sure we are ready to start now.

## **A Guideline for FGD with Women Group**

1. How do you see the health care service provision in your Kebele?
  - a, Probe for HR services
  - b, water related problems, and their opinion towards access to water (satisfactory, good, etc.
  
2. How do you understand reproductive health care (probe for its components) what are the major health problems in your K'ebele (probe for RH services)
  
3. How is the involvement of females in decision making in respect to health seeking behaviour
  - a, Making desion to go to health facilities
  - b, making desions on selling of household property
  
4. What is your perception towards health workers (TBAs, Health Extension Workers and others)
  
5. What are the local beliefs related to maternal health rendering that prevents you from getting the service?
  
6. What practices do you have related to child health care, labor and delivery which may affect your health (probe for Harmful Traditional Practices?)

## A Guideline for Key informants' interviews with Woreda health Office

1. How do you see the general health care service provision in your Woreda?
  - a, (probe for access (performance and quality of health care services
  - b, Probe for RH service utilization?
  
2. What kind of health care service do you give in your Woreda? (probe for Reproductive and child health care provisions, IMNCI, basic emergency obstetric care)
  
3. What problems do you encounter to give an accessible and quality of health care service?
  - a, probe for quality of reproductive health services from access, right choice, privacy, confidentiality, etc.
  - b, probe for distance from health facilities and communication, referral system, supplies and medical equipments (especially equipments of BEOC), human resources (trained professionals for BEOC), infrastructure, (electricity, water, incinerator, septic tank),
  
4. Do you have Woreda health profile?
  
- 5 . What suggestions could you give to improve the quality of health service in your health facility?
  
6. What is the level local authorities participation in planning, implementation, monitoring and evaluation of health programmes?