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# Knowledge Towards Antenatal Care and Service Utilization Among Women in Fiche Town, North Shewa, Ethiopia

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**Abstract:** Maternal mortality is the highest in sub-Saharan Africa, where the life time risk of death from pregnancy related conditions is 1 in 16, compared with 1 in 2800 in developed countries. In Ethiopia, like other sub-Saharan Africa countries, maternal and infant mortality remains to be a problem of public health importance. There are 350 maternal deaths for every 100000 live births. Antenatal care, the care that the women receive during pregnancy, helps to ensure healthy outcome for women and new born. A community based cross sectional study design was conducted. Systematic random sampling technique was used. A total of 345 women who delivered in the 5 years before the date of survey were interviewed. Two hundred twenty three (64.6%) women were reported to have received antenatal care at least once during their last pregnancy. Of these, 89 (39.9%) had four or more antenatal care follow ups during their last pregnancy. This is low coverage compared to other developing country. The government sector and health worker need to give great attention for antenatal care.

**Keywords:** Factors, Utilization, Antenatal Care

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## 1. Introduction

Antenatal care (ANC), along with family planning, skilled delivery care and emergency obstetric care is a key element of the package of service aimed at improving maternal and new born health [1].

Antenatal care (ANC) refers to a care before birth, and includes education, counseling, screening and treatment to monitor and promote the well being of the mother and fetus [1].

Antenatal care is the care a woman receives throughout her pregnancy and is important in helping to insure a healthy pregnancy state and safe children. The objective of ante natal care is to ensure that every wanted pregnancy results in the delivery of a healthy baby without impairing the mother's health (2).

Ante natal care is one of the most effective health interventions for preventing maternal morbidity and mortality particularly in places where the general health status of women is poor. The ante natal care period

presents an important opportunity for identifying threats to the mother and unborn baby's health as well as for counseling on nutrition, birth preparedness, delivery care and family planning options after the birth; beyond that early utilization of antenatal service is the corner stone for the effective implementation of HIV (PMTCT) program [3].

Lack of relevant and high quality antenatal care is still a major concern for many pregnant women in low and middle income countries in Africa and Asia, where the number of women who seek routine antenatal care is low and they often do so only in late pregnancy [4]. Direct obstetric complications (hemorrhage, sepsis, unsafe abortion, hypertensive disorders, obstructed labor and other like embolism) can contribute for up to 80% of maternal death [5].

The UN millennium Development Goal (MDG) on maternal health aims to reduce the number of women who die in pregnancy and child birth by three-quarters between 1990 and 2015 [6].

Maternal mortality is the highest by for in sub-Saharan

Africa, where the life time risk of death from pregnancy related conditions is 1 in 16, compared with 1 in 2800 in rich countries [7].

In Ethiopia, the level of maternal and infant mortality rate is the highest in the world. There are 676 maternal deaths for every 100000 live births, infant mortality rate was 59 per 1000 live births and the neonatal mortality rate was 37 deaths per 1000 live births [8].

According to the EDHS 2011, 34% of pregnant mothers who give birth in the five years preceding the survey received antenatal care from a skilled provider that is from a doctor, nurse, midwives for their most recent birth. About six in every ten Ethiopian women (57%) did not receives any antenatal care for their last birth in the five years preceding the survey; about 10% of women were assisted by health professionals for their most recent birth [8].

Urban women are almost three times more likely than rural women to receive antenatal care from a skilled provider, 76% of women residing in urban areas received ANC service from a skilled provider for their last birth compared to 26% of women in rural areas [8].

A community based cross sectional study done in Hadiya zone of southern Ethiopia from January –February 2009 showed that antenatal care service utilization in the study area was 86.3% from a total of 691 women who give birth at list once within the last five years before the survey [9].

## 2. Methodology

### 2.1. Study Design

A community based cross sectional study was conducted to assess knowledge, utilization and associated factors affecting women towards ANC use in Fiche town, North Shewa, Ethiopia.

### 2.2. Study Area and Period

The study was done in Fiche town. Fiche is a town located in North Shewa zone which is found in Oromiya National Regional State. The district located 115 KM away from Addis Ababa, the capital of Ethiopia. According to the information get from town administrative office Fiche town has the total population of 39910, of which 18774 are males and 21136 are females, and from these females 8832 are in the age of reproductive age group. The study was conducted from November to May.

### 2.3. Population

#### 2.3.1. Source Population

All households in Fiche town

#### 2.3.2. Study Population

All households that have women of reproductive age group were included.

### 2.4. Inclusion Criteria and Exclusion Criteria

#### 2.4.1. Inclusion Criteria

Women who are currently pregnant and have children under 5 years old

Women who have no children but pregnant before

#### 2.4.2. Exclusion Criteria

Women who have no child and not pregnant before, and Less than 15 years old and greater than 49 years old

### 2.5. Sample Size Determination

Sample size was determined by using a formula for estimating a single population proportion with confidence interval of 95%, 5% marginal error, the estimated proportion of taken as 34% which is the prevalence of ANC utilization from EDHS, a total of 345 participant were required for the study. The study subjects were selected by using systematic random sampling technique with the K value of 25 until the study participants was selected.

### 2.6. Operational Definitions

Knowledgeable; women who answered 50% of the questions correctly

ANC service Utilization; having at least 1 visits of health facility for check purpose during pregnancy.

### 2.7. Data Processing and Analysis

The collected data was checked for completeness. SPSS version 20 statistical software was employed for data entry and analysis. All data were coded in terms of number. The analysed data was described by table, percentage and graph, all of which are instruments for interpretation of the collected data.

### 2.8. Data Quality Assurance

Every day after data collection, questionnaires was reviewed and checked for completeness and relevance by principal investigation. The principal investigators had closely followed the day to day data collection process and insured completeness and consistency of questionnaire administered each day. Data was coded, entered, cleaned and analysed by using SPSS version 20.

### 2.9. Ethical Consideration

Letter of approval was obtained from the advisor and the department. Then it was submitted to ethical review committee of AAU for ethical review. The permission letter from the ethical review committee was submitted to CBE coordination office of AAU to grant letter or cooperation. The letter of cooperation was given to each of the Keble of Fiche town, Fiche health bureau and administrative office. The respondents were informed about the objective and purpose of the study. They had the rights to refuse or withdraw from the study.

### 3. Result

#### 3.1. Socio Demographic Characteristics of Study Participants

A total of 345 women who delivered in the 5 years before the date of survey were interviewed. Majority of the respondents 183 (53.0%) were in the age of 24-34. The mean age of the respondents was 27.2 (SD +/- 5.91) years. 206 (59.7%) Amhara by ethnicity, 272 (78.8%) and 63 (18.3%) were followers of Orthodox Christian and Muslim religions respectively. Of the total 308 (89.3%) of the respondents were married currently. About half, 175 (50.7%) were

illiterate while 94 (27.2%) attained primary education and the remaining 76 (22.0%) have attained a secondary and above level of education. Occupation wise, the over whelming majority 243 (70.4%) were housewives. Majority of the respondents 309 (89.6%) had 5 and below children, while 36 (10.4%) had above 5 children. Among the respondents majority 158 (45.8%) were pregnant currently, while 146 (42.3%) were breast feeding. About 134 (38.8%) of the respondents had family income of 500-1000 birr, while the remaining 70 (20.3%) and 141 (40.9%) had income of below 500 birr and above 1000 birr respectively (table 1).

**Table 1.** Sociodemographic characteristics of study participants, Fiche town, North Shewa, Ethiopia.

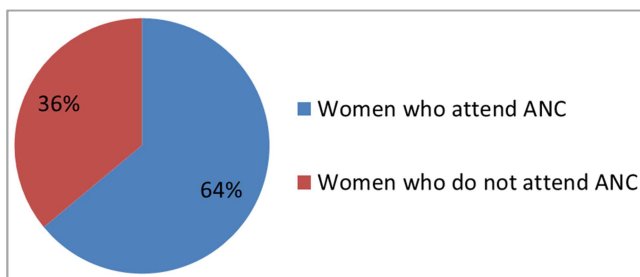
Variable		Frequency	Percent
Age	15-24	115	33.3%
	25-34	183	53.0%
	35-49	47	13.6%
Educational status	Can't read and write	175	50.7%
	Primary school	94	27.2%
	Secondary school and above	76	22.0%
	House wife	243	70.4%
Job	Government employee	49	14.2%
	merchant	24	7.0%
	Day worker	14	4.1%
	Other	15	4.3%
Religion	Orthodox	272	78.8%
	Muslim	63	18.3%
	Protestant	10	2.9%
	other	-	-
Ethnicity	Amhara	206	59.7%
	Tigray	32	9.2%
	Oromiya	102	29.5%
	Other	5	1.5%
Marital status	Married	308	89.3%
	Single	21	6.1%
	Divorced	16	4.6%
No. of children in the family	<5	309	89.6%
	>5	36	10.4%
Income per month	<500	70	20.3%
	500-1000	134	38.8%
	1000-1500	109	31.6%
	>1500	32	9.3%
Current status	Breast feeding	146	42.3%
	Pregnant	158	45.8%
	Other	41	11.9%
Listening radio or Tv	Yes	180	52.2%
	No	165	47.8%

#### 3.2. Frequency Distribution of ANC Knowledge and Utilization

Out of the 345 studied women, the majority 223 (64.6%) received ANC at least once but 122 (35.4%) reported that they did not attend ANC for their last pregnancy. Among women who had ANC follow up 84 (37.7%) attained the recommended four ANC visits by WHO. About 208 (93.3%) of women received ANC follow up from health centres. The majority 160 (71.7%) reported that urinalysis and VDRL was done and FeSO<sub>4</sub> and TT vaccine were given to them. The majority 313 (90.7%) of women had good knowledge regarding ANC. 116 (35.5%) women reported that their source of information about ANC service were health institutions and 103 (31.5%) said health extension workers.

**Table 2.** Frequency distribution of ANC knowledge and utilization of women in Fiche town 2015/16.

Variables		Frequency	Percent
ANC visit for previous pregnancy	Yes	223	64.6%
	No	122	35.4%
No. of visits	1 times	36	16.1%
	2 times	37	16.6%
	3 times	61	27.4%
	4 times	84	37.7%
	>4 times	5	2.2%
	Hospital	10	4.5%
ANC visit site	Health center	208	93.3%
	Health post	5	2.2%
	Urinalysis	3	1.3%
	Feso4	13	5.8%
Things done during ANC	TT vaccine	39	17.5%
	VDRL	1	0.4%
	All things done	160	71.7%
	Nothing done	7	3.3%
Over all knowledge	Poor	32	9.3%
	Good	313	90.7%
Ever heard about ANC?	Yes	327	94.8%
	No	18	5.2%
Source of information	Health institution	116	35.5%
	TV or radio	74	22.6%
	Traditional birth attendant	1	0.3%
	Health extension workers	103	31.5%
	Friends	33	10.1%



Utilization recorded.

**Figure 1.** Show Utilization recorded.

## 4. Discussions

A community based cross sectional survey conducted in utilization of antenatal care among reproductive age group women (15-49) years in urban squatter settlement of Karachi from 295 married women of resident of Rehri Goth of women 152 (51%) received antenatal care in their most recent pregnancy while 143 (49%) did not receive antenatal care. Among those who did not receive antenatal care, 28% reported that they did not know it was required, 10% were not advised by anyone, 8% said that they did not have permission from home, 10% found that facility to be far away, 7% that transport was not available and 37% did not have any reason. This is lower than ANC attendant of fiche women this may be due to awareness creation done by health extension worker in the area [10, 11].

Across sub Saharan Africa there is a wide variation in ANC attendance; although 71% of pregnant women attend formal ANC at least one, only 44% attend ANC four or more times this is higher than the current result. The reason may be

due to high coverage of ANC [12].

A community based cross sectional survey conducted in western province, Kenya among the 979 pregnant women in the survey, 59% had attend ANC clinics while 39% had not [13].

A descriptive research design using stratified sampling technique done on osun state Nigeria out of 102 pregnant women 58 (56.9%) attend ANC regularly while 40 (39.2%) occasionally, only 4 (3.9%) never attend. Majority of the respondents 56 (57.1%) booked for antenatal care in the first trimester, 25 (25.1%) in the second trimester and 17 (17.4%) in the third trimester. The study also showed that majority of the respondents identified affordability of antenatal care service, schedule of ANC, lack of knowledge about the existing service in ANC and Husband's acceptance of the service rendered as the major factors influencing its utilization [14].

Another study conducted in Kenya shown 90% percent of them visited an ANC at least once; among the attendees, who could recall when they first attended, 14% started ANC visits in the first trimester, 64% started in the second trimester, and 23% in the third trimester. This result is higher due to high coverage of ANC [15].

A cross sectional study done in Yeme special woreda south west Ethiopia in April 2008 among 651 women who have had a birth 12 months prior to the survey, 179 (28.5%) women were reported to have receive antenatal care at least once during their last pregnancy; of these 88 (49.2%) women made the first antenatal care visit during their second trimester, while 52 (29%) had four or more antenatal care follow ups during their last pregnancy (16). The level of antenatal care utilization were also found to be high among women with higher economic status, better education, few

children, married women and employed women [16].

Several studies conducted in developing countries on demographic and socio cultural factors influencing use of maternal health care service have shown that factors like age, number of living children, education, place of residence, occupation, religion and ethnicity are significantly associated with the use of antenatal care [10].

The level of antenatal care utilization were also found to be high among women with higher economic status, better education, few children, married women and employed women [17, 18].

A community based cross sectional study conducted in Metekel zone, north west Ethiopia, from a randomly selected sample of 1060 women who had at least one delivery in the past five years before the survey, 517 (49.8%) of the respondents had at least one antenatal care visit during the pregnancy of their last delivery. For the 521 non users, lack of awareness 268 (51.4%) and absence of health problems during pregnancy 213 (40.9) were the main reasons for not attending antenatal care [19].

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