ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

ALLIED SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

MALE PARTNER ATTENDANCE TO SKILLED ANTENATAL CARE AND ASSOCIATED FACTORS IN HALABA TOWN, SOUTHERN ETHIOPIA 2017.

BY: KEYREDIN NURIYE (BSc)

A THESIS SUBMITTED TO DEPARTMENT OF NURSING AND MIDWIFERY, SCHOOL OF ALLIED HEALTH SCIENCES, COLLEGE OF MEDICINE AND HEATLH SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTTER OF SCIENCE IN REPRODUCTIVE HEALTH AND MATERNITY NURSING.

JUNE 2017

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ACRONYMS:

ANC- Antenatal Care

AOR- Adjusted odds ratio

COR- Crude odds ratio

CI- Confidence Interval

CSA- Central Statistics Agency

EDHS – Ethiopian Demographic and Health Survey

EOC- Emergency Obstetric Care

ETB - Ethiopian Birr

FMOH –Federal Ministry of Health

HCW---health care workers

MDG – Millennium Development Goals

MMR – Maternal Mortality Ratio

PNC- Postnatal care

SBAs –Skill Birth Attendant

SDG-sustainable development goals

SNNPR --Southern Nations Nationalities Peoples Region

SPSS - Statistical Package for Social Science

SSA –Sub Saharan Africa

TBAs – Traditional Birth Attendants

WHO – World Health Organization

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ABSTRACT

Introduction: *Male attendance during antenatal care is promoted to be an important intervention to increase positive maternal health outcomes. This is because the attendance of men in antenatal care can play a vital role in ensuring safe pregnancy and skilled delivery. Despite efforts to stimulate male attendance during antenatal care, few men in Ethiopia accompany their spouse to antenatal care visits.*

Objective: *The aim of this study was to assess male partner attendance to skilled antenatal care and associated factors in Halaba Town, Sothern Ethiopia*

Method*: Community based cross-sectional study was conducted on male partners whose women gave birth within 24 months prior to the survey. Stratified random sampling method was used to get the total sample size of 370 participants. A pre-tested and structured questionnaire was used to collect data. Data entry was carried out using EPI data version 3.1 and transferred to SPSS version 23.0 for further analysis.*

Result: *Only 24.9% male partners attended at least one skilled antenatal care visit. Respondents who were government employed (AOR:4.25;(95%CI:(1.2,14.9),whose spouse had secondary education(AOR:2.74; (95%CI:(1.4,7.23), who knew the recommended time for first ANC visit(AOR:7.1;(95%CI:(3.73,13.5), aware about four ANC visits(AOR:2.8;95%CI;(1.15,6.86) and knowledgeable about ANC services (AOR:2.0;95%CI:(1.12,3.66) were positively associated with male attendance skilled antenatal care. The most common reasons for not attending ANC were being preoccupied with other jobs and considering pregnancy as women affair.*

Conclusion: *majority of male not attended skilled antenatal care. In order to improve male attendance to skilled antenatal care, health education aimed at increasing men awareness about antenatal care services should be instituted by government bodies.*

Key words: *Male partner, Attendance, antenatal care*

1. INTRODUCTION

1.1. Back ground

An estimated 303 000 maternal deaths occurred globally in 2015, which translates to nearly 830 women dying every single day due to the complications of pregnancy and childbirth. Almost all of these deaths occurred in low- resource settings(1). Developing regions account for approximately 99% (302 000) of the estimated global maternal deaths in 2015, with sub-Saharan Africa alone accounting for roughly 66% (201 000), followed by Southern Asia (66 000) (2).

Skilled health attendants during pregnancy, delivery and the post-partum period has been recognized as key in the reduction of maternal mortalities. Antenatal care is a key in this continuum of care to provide women and their families with appropriate information and advice for a healthy pregnancy, how to prepare for birth and potential complications, benefits of skilled attendance at birth (3,4).

Men's participation in maternal health in general and antenatal care in particular is very important in developing countries like Ethiopia where most women completely dependent on male decision regarding their health. Studies done in different developing countries shows that delay one (delay in decision to seek care) and delay two (delay in reaching health facility) directly related to the issues in the family and in the community which most need the attendance of male(5,6). Health services need to become more "father-friendly", and to consider that many health-related decisions affecting women and children are made by men, (7).

Study done in Myanmar indicated that around 82 %) men accompanied their wives to ANC(8). But on the contrary in Sub Sahara countries including Ethiopia, the figure appears to be much less. According to the various studies, only 13.9% men in Benin(9), 18.2% men in Burundi (10), 13.9% men in Southern Nigeria(9), 32.1% men Northern Nigeria(11) and 19.7% men in Harari public institutions, Ethiopia(12) escorted their spouse to ANC. Few published studies were conducted from male point of view about participation in ANC in Ethiopia, practically nil for proposed area. Therefore, this study would address this gap by assessing the magnitude of male partner attendance to ANC and associated factors at Halaba town, Southern Ethiopia.

1.2. Statement of problem

Improving maternal health requires great male participation. Currently, it has been recognized that their involvement and support is critical to improve maternal and newborn health, skilled birth attendance, HIV testing and treatment, increased couple communication and shared decision-making(13). In this regard antenatal care is a key entry point and an opportunity to advice women and their husband on how to prepare for birth and potential complications and promote the benefit of skilled attendance(4).

However, in majority of Sab-Sahara Africa countries including Ethiopia, their participation at skilled ANC is still weak. The analysis of demographic and health survey done in selected African countries demonstrated that proportion of men who accompanied their partners at least one check-up during ANC visit in Burundi was 18.2%, in Senegal and Zimbabwe, this was roughly 32% (14). Similarly, the study done in Harari, Ethiopia revealed that among pregnant women who had antenatal care, only 19.7% of them accompanied by their partners. (12).

Several studies have shown that socio-demographic, cultural and health facility factors hinder the participation of male at antenatal care(15). To improve the situation, Ethiopia has made major efforts through the health extension program and health development army. However, according to 2015 MOH annual report low male involvement remains a big challenge for the country and much need to be done to improve the problem(16).

Although male partners critically influence maternal health, little has been explored about the male partner attendance of skilled antenatal care in Ethiopia. A few previous published studies are available from some regions of Ethiopia (Harari, Mekele) are based pregnant woman who came ANC/PMTCT clinics which reflect their feelings about their male partners(12,17), hence exploring the male actual factors from men themselves are worthwhile.

Therefore the aim of this study was to assess the magnitude of male partner attendance to skilled ANC and associated in Halaba Town administration, Southern Ethiopia.

1.3. Significance of the study

Husband/partner attendance to skilled antenatal care and encouraging joint decision-making among couples is a promising strategy for promoting maternal health and in achieving women's empowerment; this will ultimately result in reduced maternal morbidity and mortality. Therefore, this study is vital to show male partner attendance to skilled antenatal care and associated factors.

The outcome of the study can be an input for concerned policy makers in decision making process regarding male participation in skilled ANC. And also it serves as an input for health education program undertaken by different organizations so as to keep the male partner being aware of the antenatal care services and consequences of pregnancy danger signs.

It is also assumed to help the health sector management to notice the current situation male partners at antenatal care clinic and work accordingly with other stakeholders like families, health professionals, governmental and nongovernmental organizations. The research can be used as an input for other health professionals including midwives in understanding the situation of the case and extending their intervention or work to different institutions.

Families and individuals can be benefited from this study by reading the research findings and also by taking part in the interventions that will be made by different stake holders. Since there is no tangible research conducted in the study area, this research can provide baseline data for a researcher who is interested in the area.

2. LITERATURE REVIEW

According to several reviewed literatures, male partner attendance to skilled antenatal care in different countries is described. In addition associated factors for male participation in ANC are also discussed as categorized into sub groups of socio demographic characteristics, knowledge of antenatal care services, cultural factors and health facility related factors.

2.1. Level of male attendance to Antenatal Clinic

A cross-sectional study about correlates of male involvement in maternal and newborn health in South Dagon, Myanmar in 2015 indicated that around 82 % men accompanied their wives to ANC(8). Another cross sectional study about analysis of male awareness and attitude in metropolitan city, India revealed that around 61% of participants had accompanied their wives to the antenatal clinics at one or the other time. Cross sectional study done in Kathmandu district, Nepal shows that 39.3%, accompanied their partners for ANC visit (18).

The level of male attendance to antenatal care is low in Sub-Sahara African countries. Qualitative study in Ghana revealed that men from rural communities felt it was time wasting to accompany their wives to ANC(19).The analysis of demographic and health survey done in selected African countries demonstrated that proportion of men who accompanied their partners at least one check-up during ANC visit were in Burundi 18.2%, in Senegal and Zimbabwe, roughly a third of men 32% (14). Study from southern Nigeria, northern Nigeria and southwestern Nigeria shows only 13.9%, 32.1%, 24.0% of male partners accompanied their wife for antenatal (ANC) visit respectively (9,11,20). Some 45% of women in Bauchi and 68% in Cross River, Nigeria did not discussed their pregnancy primarily with their husbands or partners(21). Similar Studies done in Zambia, Uganda and Kenya revealed that accompanying pregnant woman to clinic is uncommon, few may participate in case emergency(22–24)

Many pregnant woman want male partner to escort them to ANC. Study done among pregnant woman in Nigeria shows that 82.4% pregnant women want male partner to accompany them to antenatal clinic and 80.8% pregnant women want male partners of pregnant women to be educated about how to take care of pregnant women and sex during pregnancy(25) . Pilot case studies from

Maligita and Kibibi, Uganda, shows that male attendance in skilled antenatal care is an area in which women felt their husbands are the most absent(26).

The studies done in Ethiopia in Harari and Mekelle towns shows only 19.7% and 20% of the women were found to be accompanied by their spouse during their recent visit to ANC/PMTCT respectively (12,27). Study done in Harari town showed that the majority of women wanted their partners' participation in ANC(12)

2.2. Factors associated with male attendance to ANC

Whether male partner to attend ANC or not depends on knowledge of antenatal care service, Socio-demographic factors such as level of education, Sociocultural factors such as beliefs, attitudes and communication between men and women, individual factors such as being busy and health facility factors such as waiting time and behavior of health providers, (15,28)

2.2.1. Knowledge of antenatal care service and danger signs of pregnancy

A study about correlates of male involvment in maternal and newborn health from Myanmar shows that men with greater levels of knowledge about sexual and reproductive health are more likely to be involved in their wives' pregnancies and new born care(8). In Bangladesh few men knew that advice on newborn care, family planning, birth preparedness was given during ANC(29) in Nepal only 26.9% of men had knowledge about danger signs in pregnancy(18).

Study about Men ' s Knowledge of Obstetric Danger Signs in Tanzania shows that men who escort wife to ANC and knew at least one danger sign during pregnancy were more likely to be prepared for birth and complications(30)

Providing information to male partners of pregnant women attending antenatal care might increase their attendance and participation. Study done in Uganda revealed that men who were knowledgeable of ANC services, obtained health information from a health worker and whose spouses utilized skilled delivery at last pregnancy were more likely to accompany their spouses at ANC(23).

Lack of knowledge about ANC service and danger signs pregnancy are among the factors for low participation of male in ANC. A descriptive study in Papua New Guinea demonstrates one third of male unaware of the risk factors associated with pregnancy and the importance antenatal care service(31) .The study done at Gulu district, Northern Uganda shows male partners' knowledge about ANC services offered is limited; about half 49.9% could correctly mention two or fewer services offered(28)

Cross-sectional study done in ambo town revealed that male partners who ever attended health education on Antenatal care were 1.89 times more likely to be involved antenatal care as compared to those who were not ever attended health education on ANC. Married male involved in antenatal care were 3.14 times more likely to had practiced birth preparedness and complication readiness as compared to those who not involved antenatal care(32)

Study about male attendance in PMTCT in Gondar and Addis Ababa, Ethiopia shows that men who heard and knowledgeable about PMTCT are more likely to have high attendance in PMTCT as compared to those who didn't heard and knowledgeable (33,34). Study done in southern Ethiopia revealed that only 9.7% of husbands awareness of danger signs of obstetric complications (35).

2.2.2. Socio demographic factors

Educational status of the male partner an important factor for male attendance to ANC. In south Africa Women having a partner with higher education (completed above Grade 9) increased the odds of early ANC initiation(36). Study from Ambo found that Male partners who attended school Primary, secondary, high school, college and above were more likely to involved in Antenatal care as compared to had no formal education(32). Study in Gondar found that those who attended secondary and post-secondary education were 3.6 times more likely have high attendance index in PMTCT than those who cannot read and write(33).Similarly there is significant positive relationship between men's level of education and their level of participation in ANC in Nigeria (37)

Study from Myanmar found that polygamous marriage had a negative association with antenatal accompaniment, delivery care accompaniment and postnatal care accompaniment(38). Marital

status of men is associated with male attendance to ANC. Study in Nigeria found that men older than 40 years, ever married and professionals were more involved in maternal health care(20). Study in Ethiopia about male attendance in PMTCT shows that men who are married and in union were about 4.3 times more likely to have high attendance than those who were widowed or separated(33).

The research done in Nigeria about attitude and Practice of Males towards antenatal care demonstrated that men's occupation does not significantly affect their participation in ANC(37) whereas, Cross sectional studies done ambo, Addis Ababa and Gondar found that men whose occupation was government employee were more likely to be involved in ANC/PMTCT as compared to private employed (32–34)

Study about Male attendance in PMTCT Addis Ababa, Ethiopia shows that those with higher monthly income are more likely to have high attendance in PMTCT services than those with lower monthly income. Culture negatively influence male attendance in PMTCT (34).

2.2.3. Cultural factors

In many Sub-Sahara Africa countries the area of pregnancy and childbirth is considered to be the responsibility of the woman. Therefore, it is rare to see men accompany women to antenatal care. Studies from Ghana, Papua New Guinea, Malawi, Uganda, Kenya and other developing counties shows that Maternal health- care is usually seen as a 'feminine' domain and thus the responsibility of women's (10,11,18,19,31,39–41) and men who accompanied their wives to ANC services were perceived as being dominated by their wives, and also perceived to be weak-lings by their peers(19,42,43). Frequently men perceive that ANCs services are designed and reserved for women, thus are embarrassed to find themselves in such "female" places(15). Study from Blantyre, Malawi demonstrated that some women prefer attending antenatal care alone because they would be embarrassed with their partner's company(44)

2.2.4. Individual factors

Study about opportunities for male attendance during pregnancy in Magu district, rural Tanzania revealed that fear of HIV tested and being busy were barriers for men to attend ANC (43,45,46). Similarly qualitative study done Western Kenya found that being preoccupied with other jobs, HIV

and STI tests were barriers for male participation at ANC in contrast another study in Kenya found that reason for male to attend ANC was voluntary counselling and testing for HIV (41,47).

Certain women do not like to be seen with their male partner attending the ANC service. A study conducted in Kenya showed that certain male clients trust traditional healers but not hospitals and therefore do not attend ANC clinics(15)

Few studies in Malawi and Nigeria shows that some men do not participate in ANC/PMTCT services because they are not interested or are unwilling to take part in the service(11,44) and lack of interest(11)

Several studies also have showed that women at ANC clinics fear violence from their partners who attend ANC clinics with them if the HIV test was positive. Study from Mekelle, Ethiopia shows that the reason for woman not accompanied by male partner for ANC/PMTCT was fear of violence and divorce following positive HIV result(27).

2.2.5. Health facility factors

Although current policy prioritizes services at ANC for couples, some men felt that they were not welcomed and not received. Barriers associated to men attendance of ANC in the health system include negative attitude of health works. Studies from Nigeria, Tanzania, Ghana, Kenya, Uganda and other developing countries shows that harsh and critical language directed at women and their husbands from health professionals was a barrier to male participation(19,25,39–42,48). In Tanzania some health workers may refuse to provide ANC services to the women if they do not bring their partners.

ANC clinic did not have adequate space for all services that it offers. As a result many services being offered in proximity to each other which create lack of privacy, men accompanied pregnant women to ANC spent a lot of time outside the clinic(25,39,42,48).

Waiting time and overall duration of ANC services were mentioned as negatively impacting on men's ability to attend. Men, who frequently were in the paid workforce, are often not in a position to spend virtually the entire day participating in ANC services(47,44). Study about Clinical and perceived quality of care for maternal, neonatal and antenatal care in Kenya and Namibia shows 57.8 % of women in Kenya and 40.1 % of women in Namibia reported that the time they had to wait for their ANC visit was a problem(49).

2.2.5. Conceptual framework

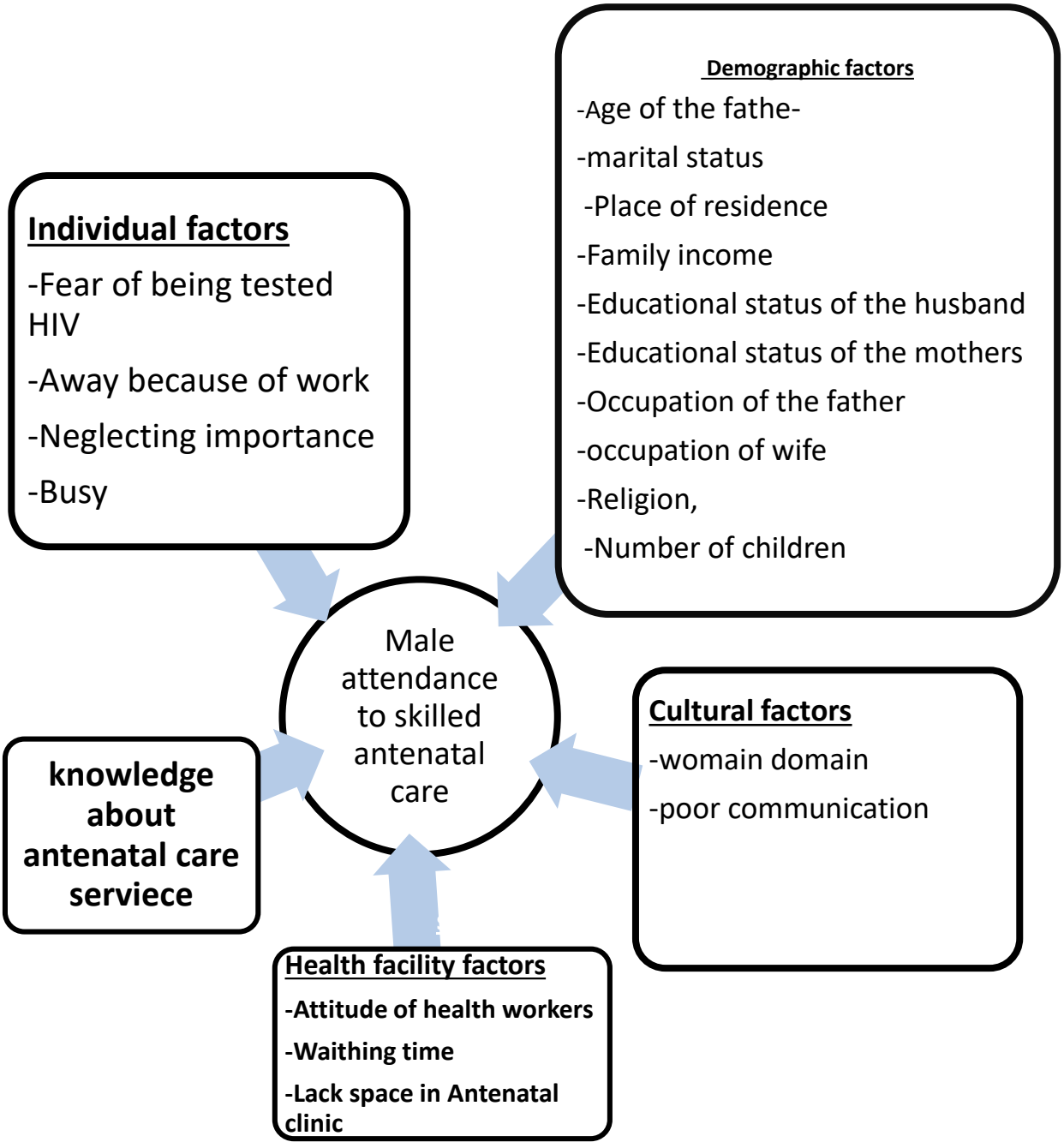


Figure 1: A Conceptual frame work for male partner attendance of antenatal care Halaba town, Halaba special Woreda, Southern Ethiopia, January 2017

3. OBJECTIVES

3.1. General objective

To determine the magnitude of male partner attendance to skilled antenatal care and associated factors in Halaba town, Southern Ethiopia 2017

3.2. Specific objectives

- To determine the magnitude of male partner attendance to skilled antenatal care in Halaba town, Southern Ethiopia
- To identify factors associated with male partner attendance to skilled antenatal care in Halaba town, Southern Ethiopia

4. METHODS

4.1. Study area and period:

The study was conducted from March to April in Halaba town, which is 240 kilometers from Addis Ababa 85 kilometers from Hawassa. Halaba town was one of the districts in southern nations, nationalities and peoples regional state with a total population of 63,528. The town was divided in to 5 urban kebele administrations and 8 rural kebeles. According Halaba Woreda health office report, it was estimated that about 23.3% are women in the reproductive age group (15-49).Regarding health infrastructure in Halaba town there is one governmental district hospital and one Health Centers. In addition, there were 3 medium and 2 lower level private clinics which have been giving services for the total population. In addition there were 8 urban health extension workers in Halaba town(50).

4.2. Study design:

Community based quantitative cross-sectional study design was employed to assess the level of male attendance to antenatal care and associated factors.

4.3. Source population:

The source population was all married men in the district.

4.4. Study population:

The study population includes all male partner of women of child bearing age (15-49 years old) in the study area and whose wife gave birth in the last two years.

4.5. Study subjects:

Study subject were male partner of mothers who gave birth in the last 2 years and who is selected based on the proposed sampling techniques.

4.5.1. Inclusion criteria:

Male partner of women who gave birth in the last 2 years regardless of the outcome and who lived in the study area for at least six months

4.5.2. Exclusion criteria:

Male partners who are not mentally healthy and unable to consent will be excluded from the interview.

4.6. Sample Size and Sampling techniques

I. Sample size:

To assess the male attendance in the district, a single population proportion formula will be used to calculate the sample size:-

$$[n= (Z \alpha/2)^2 \times P (1-p)/d^2]$$

Where: -

- n =Sample size
- d = Degree of precision or margin of error 5% = 0.05
- P = the proportion of male attendance in ANC (19.7 %) (Harari study (12))
- Zα/2= Z value of 95% confidence = 1.96 from the Z-table

Substituting the values into the formula:

$$n= (1.96)^2 x \frac{0.197\ (0.803)}{(0.05)^2} = 243$$

Since the total population was 3078 which was less than 10000, using the correction formula

$$\text{Corrected sample size} = \frac{n}{1+(n/N)}$$

n=desired sample size (when population > 10,000)
N=the estimate of the population size

$$= \frac{243}{1+ (243/3078)}$$

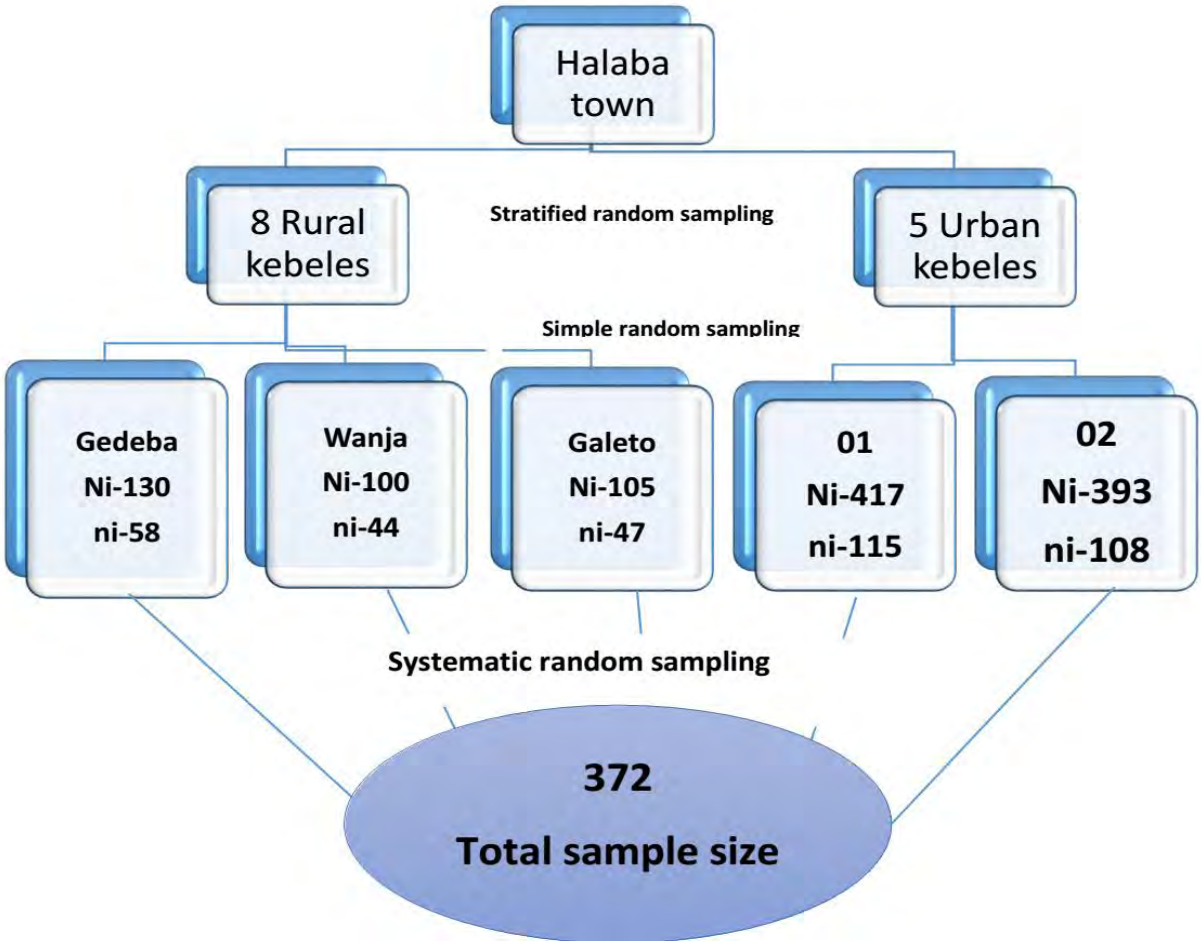
=225

(225 + (225 x 10% none response rate)) x 1.5(design effect) =371.5≈ 372

n= 372

II. Sampling techniques: Stratified random sampling technique was utilized to select the study subjects. Initially, the study area was divided into two strata, urban and rural Kebeles. Two urban Kebele from the total 5 urban kebeles and three rural Kebeles from total eight rural Kebeles were selected by simple random sampling technique. From total 372 samples 60% (n=223) were distributed to selected urban kebeles, while 40% (n=149) samples were distributed to the selected rural kebeles depending on the size of hose holds residing in each Kebele. Then the number of all male partner whose wife delivered in 24 months prior to the study were taken from each selected kebeles health extension workers. Then, frames of households were prepared for each Kebele in collaboration with the health extension workers. In Gedeba Kebele there were 390 households and 130 men whose spouse delivered were registered. In Wanja Kebele there were 300 hose holds and 100 men whose spouse gave birth were registered. In Galeto Kebele there were 315 households and 105 men whose wife delivered were found. In Kebele 01 there were 834 households and 417 men whose spouse delivered were registered. Finally in Kebele 02 there were 786 households and 393 men whose wife delivered were registered. Households with male partner whose spouse gave birth in the last 24 months prior to the survey were selected using systematic random sampling

from the existing sampling frame of households. For selecting the study participants, different sampling intervals were used for each kebeles. If there were more than one male within the same household lottery method was used to select the male to be included. For households with no eligible men the immediate next household was selected and then subsequent households were selected according to the already pre-determined order



Where N= Total number of households in selected Kebeles

Ni=Total number of households in each Kebele

ni= Ni X n n= Total sample size to be selected in five

N kebeles

ni=sample size drawn from each kebele

Fig.2 sampling diagram

4.7. Study variables

4.7.1. Dependent variable:

Male attendance of skilled ANC

4.7.2. Independent variable

- **Socio demographic variables** (age of the husband, marital status, place of residence, family income, educational status of the husband, educational status of the mothers, occupation of the husband, religion,).
- **Knowledge of ANC service and danger sign of pregnancy**
- **Health facility factors(**attitude of health workers, facility set up, waiting time,)
- **Cultural factors**(husbands attitude to ANC, role of other family members, communication)
- **Individual factors**(Fear of being tested HIV, Away because of work, Neglecting importance, Busy)

4.8. Operational definition

- **Male Partner:** male who is married to or cohabitating with another women
- **Male attendance to skilled antenatal care**: male accompanied pregnant woman to antenatal care ever in the last two years.
- **Skilled birth attendance**: People with necessary skills (doctors, midwifes, nurses) who have been trained in the skills necessary to manage normal delivery, diagnose and refer obstetric complications.
- **Knowledgeable of antenatal care service** : The male partner who knew antenatal care services more than mean average score
- **Not knowledgeable of antenatal care service**: The male partner who knew antenatal care services less than mean average score
- **Knowledgeable of pregnancy danger sign**: Male partner who spontaneously mentioned at least 3 danger signs of pregnancy
- **Not knowledgeable of pregnancy danger sign**: Male partner who did not spontaneously mentioned 3 danger signs of pregnancy

4.9. Data collection instrument and procedure

The questionnaire items were adapted from survey tools and indicators for maternal and newborn health developed by JHPIEGO, an affiliate of Johns Hopkins University(51) and review of relevant prior studies(18,32,38,43). The questionnaire was first prepared in English and translated to Amharic finally it was translated back to English by another person for consistency.

The data collection instrument was pretested on10% of eligible respondent's on the other Halaba town kebeles which were not included in the study before the actual data collection. Findings from the pilot study had been discussed among data collectors and supervisors and utilized in modifying the interview. Information about socio demographic, cultural factors, individual factors, health facility factors, knowledge about ANC service and danger signs of pregnancy were addressed by the questionnaire.

Ten clinical nurses in the town were selected as data collectors and two health officers were assigned as supervises to the data collection process. All data collectors and supervisors were trained for two days for data collection process. The training course had been given by the Principal Investigator (PI) prior to data collection. The sessions of the training included purpose and objectives of the survey, meanings of each question and techniques of interview. In addition, the role and responsibilities of data collectors and supervisors were also included. Besides, principles of data collection and keeping privacy during interview and confidentiality of information were given emphasis.

4.10. Data quality control

Data quality was ensured during collection, coding, entry and analysis. During data collection, adequate training and follow up was provided to data collectors and supervisors and questionnaires were pre–tested. Supervision of data collectors' including observation of how they administered the questionnaires and random revisit on required number of households by supervisors and the principal investigator. Completed questionnaires were being checked for completeness by data collectors, supervisors and the principal investigator on a daily basis. Consequently, any of problems encountered were discussed among the survey team and solved immediately. Finally, data were thoroughly cleared and organized before analyses.

4.11. Data processing and analysis

All the questionnaires were checked manually for any inconsistencies and incompleteness in the data set, coded and entered into EPData version 3.1 and were transferred to SPSS version 23.0 software packages for analysis. The data was analyzed using logistic regression to determine the effect of various factors on the outcome variable and to control confounding effects. The results were presented in the form of tables, figures and text using frequencies and summary statistics such as mean and percentage to describe the study population in relation to relevant variables. The degree of association between independent and dependent variables was assessed using odds ratio with 95% confidence interval at p value<0.05

4.12. Ethical considerations

Ethical clearance was obtained from Institutional Review Board (IRB) of Addis Ababa University and permission to conduct study was also obtained from Halaba town administration district office and Sampled Kebele administrations. Prior to interview; informed consent was also obtained from each participant.

4.13. Disseminations of results

The findings of this study will be submitted to Addis Ababa University, College of Medicine and Health Sciences, School of allied health science, Department of Nursing and Midwifery as partial fulfilment of the degree of Master of Reproductive Health and Maternity nursing. Copies of this paper will be sent to SNNPR regional health bureau and Halaba Special Woreda health department. The findings will also be presented in various seminars and workshops and an attempt will be made to publish in a scientific journal.

5. RESULTS

5.1 Socio-demographic characteristics of the respondents

As shown in the table 1, majority of the respondents 56.2 %(n=208) were between the age of 20-29 years. More than three fourth 81.4% (n=301) of men were followers of Muslim religion. Regarding ethnicity the most numbering 74.3% (n=275) respondents were Halaba. Concerning education 30.8% (n=114) had attended primary education. 60.3% (n=223) respondents were urban residents. Majority 92.7% (n=343) of respondents were monogamous and 36.8% (n=136) of men were farmers. About thirty six percent (n=134) of men earn between 501-1000ETB (22-43USD) monthly. Regarding respondents spouse, 36.2% (n=134) wives attended primary education and around one third 67.8% (n= 251) mothers were housewives.

Table 1. The socio-demographic characteristics respondents, Halaba town, Southern Ethiopia, June 2017

Variables		Frequency	Percent
Age	20-29	208	56.2
	30-39	105	28.4
	40-49	45	12.2
	50-59	12	3.2
Religion	Muslim	301	81.4
	Protestant	42	11.4
	Orthodox	24	7
	Catholic	1	0.3
Ethnicity	Halaba	275	74.3
	Kambata	43	11.6
	Silte	32	8.6
	Amhara	15	4.1
	Others*	5	1.4
Education	No formal education	40	10.5
	Primary education	114	30.8
	Secondary education	127	34.3
	Above secondary education	89	24.1
Residence	Urban	223	60.3
	Rural	147	39.7
Family status	Monogamous	343	92.7
	Polygamous	27	7.3
Occupation	Farmer	136	36.8
	Self employed	98	26.5
	Government employed	100	27
	Daily laborer	36	9.7
Income	Less than 500ETB	107	28.9
	501-1000ETB	134	36.2

	1001-2000ETB	66	17.8
	2001-3000ETB	39	10.5
	Above 3001ETB	24	6.5
Spouse educational	Level		
	No formal education	104	28.1
	Primary education	134	36.2
	Secondary education	72	19.5
	Tertiary education	60	16.2
Spouse occupation			
	House wife	251	67.8
	Self employed	44	11.9
	Government employ	61	16.5
	Daily laborer	14	3.8

**others, Hadiya, Gurage, Wolayta*

5.2 Men's Knowledge and awareness about antenatal care service

When the knowledge of male partners about antenatal care services were dichotomized using mean score, about one hundred thirty eight (37.3%), 95% CI (32.4%, 41.9%) of men knew antenatal care services which was measured by mean score.

As shown in table 2. Among all respondents 53.8 %(n=199) of men knew at least one antenatal care service. The percentage of men who knew HIV test as antenatal care service were 35.4 %(n=131), iron and folate supplementation 32.7%(n=121), advice on dietary intake 27.6%(n=102), advice on skilled birth attendance 21.6%(n=80), advice on rest 7%(n=26), abdominal examination 6.2%(n=23), blood pressure measurement 21.9%(n=81), blood testing 19.5%(n=72), advice on danger sign of pregnancy 6.8%(n=25), urine analysis 10.5%(n=39), stool exam 8.1%(n=30), fetal growth monitoring 10.3%(n=30), tetanus toxoid vaccination 8.4%(n=31) and the list mentioned service was advice on birth preparedness 5.1%(n=19). Other services like advice on newborn care, child immunization, family planning, and exclusive breast feeding and fetal heart beat checkup were not mentioned at all.

Table 2. Men's knowledge and awareness about antenatal care service at Halaba town, Southern Ethiopia, June 2017

Variable	Response	Frequency	Percent
Do you know antenatal care services	Yes	199	53.8
	No	171	46.2
	Awareness about antenatal care services		
	Yes(n)	No(n)	
HIV testing	35.4%(n=131)	64.6%(239)	
Iron and folate supplementation	32.7%(n=121)	67.3%(249)	
Advice on dietary intake	27.6%(n=102)	72.4%(268)	
Advice on skilled birth attendance	21.6%(n=80)	78.4%(290)	
Advice on rest	7%(n=26)	93%(344)	
Abdominal examination	6.2%(n=23)	93.8%(347)	
Blood pressure measurement	21.9%(n=81)	78.1%(289)	
Blood testing	19.5%(n=72)	80.5%(298)	
Advice on danger sign of pregnancy	6.8%(n=25)	93.25(345)	
Fetal growth monitoring	10.3%(n=30)	89.7%(332)	
Stool exam	8.1%(n=30)	91.9%(340)	
Urine analysis	10.5%(n=39)	89.5%(331)	
Tetanus toxoid immunization	8.4%(n=31)	91.4%(338)	
Advice on birth preparedness	5.1(=19)	94.9%(351)	

5.3 Knowledge of pregnancy danger signs

As shown in the figure 3. Men's knowledge of pregnancy danger signs was low. From the total respondents around 53.2% (n=197) of men mentioned at least one danger sign of pregnancy and only 21.9% (n=81) of respondents knew about three and above pregnancy danger signs. Vaginal bleeding 35.1% (130) was the most recognized danger sign and loss of consciousness 4.1% (15) was the least recognized danger sign during pregnancy. (See the remaining in the figure 3 below)

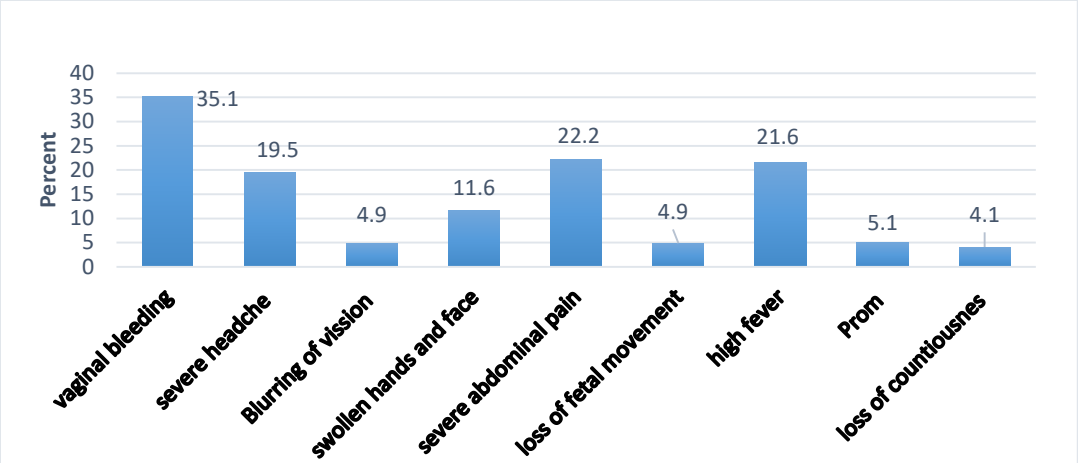


fig 3. Reported danger signs of pregnancy among men in Halaba town,Southern Ethiopia 2017

5.4 Level of male attendance and awareness about antenatal care

Concerning male partner antenatal care clinic attendance, the current study result shows that around 24.9% (n=92) of men accompanied their spouse for antenatal care visits. From this 16.2% (n=60) and 8.7% (n=32) men accompanied one time and more than one time respectively. From the total respondents 19.5 % (n=72) of men attended antenatal health education while 80.5% (n=298) of men not attended antenatal health education. Pertaining to financial support 95.1% (n=352) of study participants provided money for transportation and ANC while the rest 4.9 %(n=18) not. Concerning study participants spouse ANC service utilization, around 71.9 %(n=266) of spouses who gave birth during two years prior to this study received at least one ANC visit and only 20.5% (n=76) of them received four or more antenatal care visits.

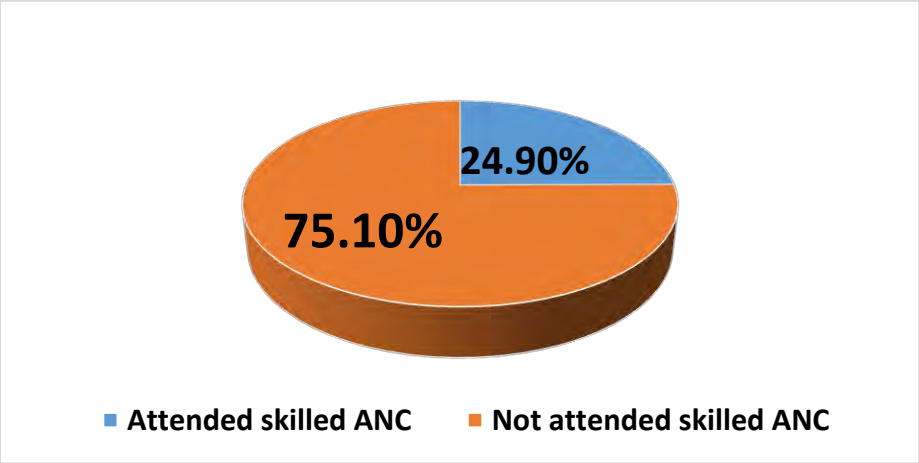


Fig 4. Male partner attendance to skilled antenatal care in Halaba town, Southern Ethiopia.

From the total respondents 93.8 %(n=347) reported antenatal care service is important for pregnant women while 6.2% (n=23) said no. Regarding number of antenatal care visit, around one third of respondents 33.5% (n=124) aware of the recommended four ANC visits, 12% (n=45), 31.4% (n=116), 23% (n=85) stated three visits, two visits and one visit respectively. Among all study participants 43.2% (160) men mentioned a women should start first antenatal care visit within 16 weeks after cessation of menses.

When men were asked who should accompany pregnant women for ANC checkups, 39.2% (n=145) said mother-in low, 27.3% (n=101) thought husband, 17.8% (n=66) said sister-in low, 10.8% (n=40) said her female friend, 4.9% (n=18) said neighboring women.

The main reasons mentioned for not accompanying their spouse to antenatal clinic were 27.6%(102) being preoccupied with other jobs, 23.2%(86) pregnancy was women affair, 13%(48) lack of knowledge about ANC service, 6.5%(24) away because of work 3.5%(13) ANC clinic was women area feel ashamed to accompany and 1.4%(5) fear of HIV test. 19.5 % (n=72) of men attended antenatal health education while 80.5% (n=298) of men not attended antenatal health education. 95.1% (n=352) provided money for ANC while the rest 4.9 %(n=18) not.

Table 3. Male attendance and experience at antenatal care clinic Halaba town, Southern Ethiopia, June 2017

Variables	**Response**	**Frequency**	**Percent**
Antenatal checkups are important	Yes	347	93.8
	No	23	6.2
Recommended number ANC visits	<4 visits	246	66.5
	>=4 visits	124	33.5
when to start first ANC visit	<=16 wks	160	43.2
	>16 wks	210	56.8
Your spouse received ANC) checkups?	Yes	266	71.9
	No	104	28.1
If yes, how many times did she receive?	1 visit	96	25.6
	2 visit	60	16.2
	Three visit	34	9.2
	Four and above visit	76	20.5
You accompanied your spouse for ANC checkups?	Yes	92	24.9
	No	278	75.1
If yes, how many times?	One time	60	16.2
	More than one time	32	8.7

If not accompanied, why?	Preoccupied with other jobs	102	27.6
	Not my concern(women affair)	86	23.2
	Lack of knowledge about ANC	48	13
	Away because of work	24	6.5
	ANC clinic is women area	13	3.5
	She was not sick	10	2.8
	Fear of HIV test	5	1.4
Have you ever attend ANC health education?	Yes	72	19.5
	No	298	80.5
Did you provide money for transportation/drugs for ANC checkups?	Yes	352	95.1
	No	18	4.9

5.5 Socio cultural factors

As shown in table 4, around 54% of respondents thought that Pregnancy issue was women affairs while about 44.6 %(n=165) of respondents perceived that pregnancy was not only women Affair. Majority 77.6 %(n=287) respondents perceived that ANC clinic serve only for women.

Table 4. Socio cultural factors related to male partner attendance to skilled antenatal care at Halaba town, Southern Ethiopia 2017

Variable	Response	Frequency	Percent
Pregnancy is the domain of women/ women's affairs?	Yes	205	55.4
	No	165	44.6
ANC clinic is a place where the service is given only for women	Yes	287	77.6
	No	83	22.4
A pregnant woman can visit antenatal care without the permission of her husband/partner?	Yes	293	79.2
	No	77	20.5
Did you discuss with your wife about ANC visit during her last pregnancy	Yes	146	39.5
	No	224	60.5
Decision maker regarding family health matters	Husband	219	56.2
	Wife	5	1.4
	Discussion with wife	146	39.5

Regarding permission to visit ANC clinic majority 79.2 %(n=293) men thought a women can visit ANC clinic without the permission of her husband however 20.8% (n=77) of respondents said no. Most of the respondents 60.5% (n=224) of men not discussed with their wife about antenatal care visit. More than half 59.2% (n=219) of the respondents reported that decisions regarding family

health matters were made bay male, 39.5 %(n=146) made dual decisions while only 1.4 %(n=5) decisions made by wife

5.6 Health facility factors

As shown in the table 4, most of the respondents 60.8 %(n=56) thought antenatal care room is adequate for antenatal consultations while 39.1 %(n=36) said no. Regarding privacy majority 85.8% (n=79) of men who accompanied their spouse to ANC clinic said privacy was protected.

Around seventy two percent (n=67), 33.6 %(n=) and 57.6 %(n=53) of study participants said health workers handling was poor, ANC room was inconvenient and service duration was long respectively. Eighty eight percent (n=81) and 70.6 %(n=65) of men who visited ANC clinic thought that they were satisfied with over all service they got and working hour was suitable for male respectively.

Table 5. Health facility factors related to male partner attendance to skilled antenatal care at Halaba town, Southern Ethiopia 2017

Variable	Response	Frequency	Percent
Antenatal care room adequate	Yes	56	60.8
	No	36	39.1
Privacy protected	Yes	79	85.8
	No	13	14.1
Health workers handling good	Yes	25	27.1
	No	67	72.8
Is room convenient for male	Yes	61	66.3
	No	31	33.6
Waiting long time	Yes	53	57.6
	No	39	42.3
Overall satisfaction	Yes	81	88
	No	11	11.9
Working hour suitable	Yes	65	70.6
	No	27	29.3

5.7 Factors associated with male attendance to antenatal care

5.7.1 Multivariate of analysis male attendance to antenatal care with independent variables

To see the effect of independent variables on dependent variable, bivariate logistic regression analysis was carried out with 95%CI at P less than 0.05. All factors which show significant association during bivariate logistic regression were entered in multivariate logistic regression and finally independent predictors of male attendance to skilled antenatal care were identified.

As shown in the table 6, in multiple logistic regression, those partners whose occupation were government employ were four times more likely attended skilled antenatal care as compared to those who were farmers and self-employed[AOR= 4.25, 95%CI:1.20-14.99, P=0.024)

Men whose wife had secondary education were three times more likely attended skilled ANC as compared to those men whose spouse had no formal education and primary education[AOR= 2.74, 95%CI, 1.24-7.23,p=0.041)

Concerning antenatal care visit, awareness about recommended time to start first antenatal care visit and number of ANC visit were associated with male attendance to skilled ANC. Men who mentioned first ANC visit was below 16 weeks were [AOR=7.1095%CI: 3.73-13.51, p=0.000) times more likely went to skilled ANC with their spouse as compared to those who said after 16 weeks. Regarding recommended number of ANC visit, study participants who mentioned four visits were three times more likely accompanied their spouse to ANC clinic as compared to those who said blew four visits[AOR=2.81, 95%CI,1.15-6.86, p=0.023]

Concerning knowledge about antenatal care services, study participants who have adequate knowledge about antenatal care services were [AOR= 2.03, 95%CI, 1.12-3.66, p=0.018] two times more likely escorted their spouse to skilled ANC as compared to those with inadequate knowledge about antenatal care services

Table 6, multivariate analysis between male attendance to skilled antenatal care and associated factors at Halaba town, Southern Ethiopia, 2017

Variables	Attended antenatal care		COR(95%CI)	P-value	AOR(95%CI)	P-value
	No	Yes				
Residence						
Rural	124(84.4%)	23(15.6%)	1		1	
Urban	154(69.1%)	69(30.9%)	**2.41(1.42, 4.09)***	0.001	1.2(.18,8.08)	.830
Educational male						
No formal education	34(85.0%)	6(15.0%)	1		1	
Primary education	94(82.5%)	20(17.5%)	1.20(.44,3.25)	.712	.80(.25,2.57)	.715
Secondary education	91(71.7%)	36(28.3%)	2.24(.86,5.79)	.096	1.38(.41,4.56)	.596
Tertiary and above	59(66.3%)	30(33.7%)	**2.8(1.08,7.62)***	.033	.85(.23,3.15)	.811
Occupation of male						
Farmer	115(84.6%)	21(15.4%)	1		1	
Self employed	69(70.4%)	29(29.6%)	**2.3(1.21, 4.34)***	.010	1.49(.16,13.90)	.726
Go/NGO employee	62(62.0%)	38(38.0%)	**3.35(1.81,6.21)***	.000	**4.25(1.2,14.9)***	.024
Educational of spouse						
No formal education	87(83.7%)	17(16.3%)	1		1	
Primary education	107(79.9%)	27(20.1%)	1.29(.66,2.52)	.454	1.38(.60,3.13)	.440
Secondary education	48(66.7%)	24(33.3%)	**2.55(1.25,5.22)***	.010	**2.74(1.24,7.23)***	.041
Tertiary and above	36(60.0%)	24(40.0%)	**3.41(1.64,7.09)***	.001	2.89(.75,11.11)	.122
Time to start ANC						
Within 16 weeks	93(58.1%)	67(41.9%)	**5.33(3.16,8.99)***	.000	**7.1(3.73,13.5)***	.000
Above 16 weeks	185(88.1%)	25(11.9%)	1		1	
Number of ANC visit						
1 visit	76(89.4%)	9(10.6%)	1		1	
2 visit	94(81.0%)	22(19.0%)	1.97(0.86,4.54)	.10	1.52(.58,3.94)	.385
3 visit	29(64.4%)	16(35.6%)	**4.6(1.85,11.71)***	.001	1.96(.62,6.13)	.246
4 and above visit	79(63.7%)	45(36.3%)	**4.8(2.20,10.51)***	.000	**2.8(1.15,6.86)***	.023
Discussion of ANC visit?						
yes	96(65.8%)	50(34.2%)	**2.25(1.39,3.64)***	.001	1.18(.601, 2.35)	.619
no	182(81.3%)	42(18.8%)	1			
Knowledge about ANC services						
Knowledgeable	90(65.2%)	48(34.8%)	**2.2(1.41, 3.680***	.001	**2.0(1.12,3.66)***	.018
Not knowledgeable	188(81%)	44(19%)	1		1	

6. DISCUSSION

This study was intended to assess the magnitude of male attendance to antenatal care and associated factors in Halaba town. Males who were accompanied their spouse to skilled antenatal care attendance were only 24.9 %(92). The prevalence of male attendance to skilled antenatal care was 30.9 %(69) among urban residents and 15.6% (23) among those living rural areas. The overall prevalence of the study district was consistence with the study done at Enderta Woreda, Gondar, Nigeria and Harar (12,20,33,52) . In addition this is higher than the study done at Northern Nigeria, Burundi and Zambia (9,11,14,22) but lower than the study done at Tanzania, Uganda and Myanmar (23,30,38). The reason for this difference might be the socio-cultural difference across countries and difference in counseling about male attendance to skilled ANC.

Men whose occupation were government employed were more likely attended antenatal care as compared to those who were farmers and self-employed[AOR= 4.25, 95%CI:1.20-14.99, P=0.024). This finding is consistent with the study findings in Gondar, Ambo and other countries like Nigeria, Nepal and Uganda, (18,20,23,32,33). This could be due to men who work in governmental institution have better educated status and they are accessible to information related to antenatal care services.

Educational status of spouse is significantly associated with male attendance to antenatal care. Men whose spouse had secondary education were more likely attended antenatal care than those men whose spouse had no formal education and had primary education[AOR= 2.74, 95%CI, 1.24-7.23,p=0.041). This finding was in line with other studies that were done in Uganda, Myanmar (8,23). The reason could be educated women spouse had access to written information and could adapt to modern cultural perspectives and freely communicate and discuss issues related pregnancy with their wife. Moreover, education empowers females so as to increase confidence to make capable of shared decision making about their own and their families' health.

Knowledge of recommended four visits significantly associated with male attendance to skilled ANC. Those men who knew the recommended number of ANC visits (four visits) had almost a three times more likely to attend ANC compared to those who did not know[AOR=2.81, 95%CI,1.15-6.86, p=0.023]. This is in line with the study done among women in South West Shoa

Zone(53). This put forward that delivery of proper information and advice on the patterns of ANC service utilization from service providers improves male participation on ANC

Awareness of first ANC visit time has significant association with male attendance to skilled antenatal care. Men who were knowledge about the recommended time for first ANC visit or before 16 weeks were more likely to attend ANC than those who said after 16 weeks[AOR=7.10, 95%CI: 3.73-13.51, p=0.000). This is concurrent with the study done in Myanmar (11). This might be due to men who were informed about first ANC visit were more knowledgeable about maternal health services.

Men who were knowledge about antenatal care services were two times more likely attended skilled ANC as compared to their counterparts. This is consistence with the study done in northern Uganda, Papua New Guinea and Myanmar (8,28,31,38). The reason might be those who knew antenatal care services were more aware of pregnancy and its associated complication.

About 93.8 %(n=347) respondents regarded antenatal care attendance of spouse as beneficial. This is in line with the study done by Tweheyo et al in Gulu district , Northern Uganda(28) . The most mentioned ANC services were HIV screening 35.4% (n=131), iron and folate supplementation 32.7 %(n=121), advice on dietary intake 27.6 % (n=102), advice on skilled birth attendance 21.6% (n=80), blood pressure measurement 21.9% (n=81

The main reason for not attending attendance ANC was being preoccupied with other jobs. Similarly this finding explained by study done in Harari puplic institutions by Fekede Asefa and his friends in 2014, in Kenya by Kwambai et al in 2013 and in Mozambique by Carolyn et al in 2016(12,41,43).

Another reason for not attending skilled ANC was considering pregnancy and delivery as women domain and the responsibility of women. This is concurrent with studies done in Nepal by Bhatta D in 2013 and in Nigeria by Iliyasu et al in 2010(11,18). Further reasons mentoned in this study were lack of knowledge of about ANC service, away because of work, a belief that ANC clinic is only women area and feeling shame to accompany, pregnancy was normal and fear of HIV test. This is in line with the studies done Ethiopia and other developing countries like Kenya,

Mozambique, Nepal and Nigeria(12,18,28,43,54,55). This may be due sociocultural similarities that we share in Africa and other developing countries.

Regarding knowledge of danger sign of pregnancy 53.2% men knew at least one danger sign of pregnancy. Only 21.9% men were knowledge about 3 and above pregnancy danger signs. This is in line with the study done in Nigeria, rural Tanzania and Uganda (30,56,57). But, lower than the study done in Gamo Gofa Zone Sothern Ethiopia and Nepal where 42% and 26.9% men were knowledgeable about pregnancy danger signs respectively(18,35). In addition this is higher than the study done on knowledge of obstetric danger signs among women of reproductive age in Nigeria where 7.1% are knowledgeable(57). This variation might be socio-demographic differences between the study populations.

Among the danger signs of pregnancy the most mentioned danger sign was vaginal bleeding 35.1% (130). This similar with the study findings done among pregnant women Attending Antenatal Care in Goba, Mizan Aman, Mekelle and Uganda (17,56,58,59) but lower than the study done in Debaytilatgin district and Nepal (60,61) . High fever mentioned by 21.6%(79) of men was similar with the study finding done in rural Tanzania and in Nepal which was 21.6% and 20.8% respectively(30,60). Severe headache mentioned by19.5%(72) men which was concurrent with the study done in Nepal(60) but higher than study done in Debaytilatgin 8.8%(61). Eighty two(22.2%) of men mentioned severe abdominal pain which is higher than studies done in Debaytilatgin and Mizan Aman(58,61). This difference might be due to socio- economic difference and differences in the implementation of relevant health intervention programs.

Regarding financial support majority 95.1% provided money for transportation and drugs during spouse ANC visit. The finding is consistence with the study done on perception, attitude and involvement of men in maternal health care in a Nigerian community by Adenike et al in 2013(20) and a cross-sectional study about utilization of maternal care services done in Yangon, Myanmar by Wai KM and his friends in 2015(38). This may be the cultural beliefs across developing countries

Pertaining to decision making regarding health matters about More than half 59.2% (n=219) of the respondents reported that decisions regarding family health matters were made by male alone, 39.5

%(n=146) made dual decisions. This is line with the study done in Ambo where 60% of men made unilateral decision(32) and qualitative study done on perspectives of men on antenatal and delivery care service utilization in western Kenya where majority of decisions were made by men (41). This may be the sociocultural similarities that we share with other African countries

Majority 77.6 %(n=287) respondents perceived ANC clinic service was only for women. Around 54% of respondents thought that Pregnancy was women affair. This is in line with the study finding done in Kenya and Tanzania (41,55). This might be the socio cultural beliefs across African countries

Regarding discussion about antenatal care and ANC around 60.5% of study participants said not discussed the issue with their spouse. This finding is concurrent with the study done by Vermeulen et al, about opportunities for male involvement during pregnancy in Magu district , rural Tanzania in 2016 and by Andersson et al in Nigeria (21,45). This might be in many African countries it was not common to discuss reproductive health issues.

Concerning service perception, among men who accompanied their spouse 88 %(n=81) were satisfied with over all service they got and 14.2 %(n=21) of those who attended ANC reported that privacy was not protected. This was consistent with the study done on antenatal care strengthening in Jimma where only 10% were not satisfied with service they got(62). Among respondents 72.8 %(n=67) and 33.6 % of study participants said health workers handling was poor and ANC room was inconvenient respectively. This is similar with study done in Jimma where poor staff conduct and lack of privacy was raised at ANC clinics service users(62).

Educational status of male had significant positive association with male attendance to skilled antenatal care during bivariate analysis but insignificant after controlling other confounding factors which is in line with other studies (36–38). The reason might be male partners with higher level of education better understand the complications associated with pregnancy, education also allows men to reject the negative cultural beliefs, and it is also likely that men with better educational level have some formal employment which enables them to raise funds that they can use to pay for antenatal care services

7. STRENGTH AND LIMITATION

7.1 Strength

- The study was community based and it could reflect the actual experience of the male partners during the study period
- The probability sampling method used increases representativeness of study population

7.2 Limitation

- Had all the limitations a cross-sectional study
- Since the data collectors were health professionals there may be some social desirable responses for some of the variables.
- The findings of this study may mainly be applied to similar population in Halaba districts, Ethiopia.

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

- The level of male partner attendance to skilled antenatal care in the study area was only 24.9%. Majority of male partners not attended their spouse skilled ANC clinic visit.
- Men who are government employed, whose spouse had secondary education, knew the recommended number of ANC visits and knowledgeable about ANC services showed positive association with male attendance to skilled ANC
- The main reasons for not attending ANC were being preoccupied with other jobs, considering pregnancy and ANC care as women affair, lack of knowledge about ANC services, Feeling shame to accompany, away because of work, fear of HIV test,

8.2 Recommendation

- **To regional health bureaus and federal ministry of health**
  To review and improve strategies that improve male participation at ANC programs.
- **To policy makers**
  Community mobilization and health education should be considered to improve the awareness of antenatal care services
- **To Woreda health office**
  To involve traditional and religious leaders, who usually have significant influence at the community level to mobilize communities and lead health education campaigns to promoting male involvement in maternal health services
- **To Health care workers**
  To consistently counsel men to attend their spouse antenatal follow-up and complications associated with pregnancy
- **To Health extension workers**
  To educate men intensively on maternal health services in general and antenatal care in particular.
- Finally, further research should be conducted to cover an expanse population; this will allow for generalization and what intervention could be best used to improve male involvement in maternal health.

9. REFERENCES

1. World health statistics 2016:monitoring health for the SDGs, sustainable development goals. World Health Organization. 2016.
2. Estimates by WHO, UNICEF, UNFPA WBG and the UNPD. Trends in Maternal Mortality : 1990 to 2015. World Health Organization. 2015.
3. Basic emergency obstetric & newborn care (BEmONC). Federal Democratic Republic of Ethiopia Ministry of Health. 2010.
4. Federal Democratic Republic of Ethiopia Ministry of Health. Management protocol on selected obstetrics topics. 2010.
5. Win T, Vapattanawong P, Vong-ek P. Three delays related to maternal mortality in myanmar : a case study from maternal death REVIEW , 2013. J Heal Res. 2015;29(3):179–87.
6. Gelany S El, Mansour MG, Hassan MM. The Three Delays of Maternal Mortality in a Public-Sector Tertiary Teaching Hospital : Is There a Paradigm Shift ? Gynecol Obs Res Open J. 2015;2(2):52–6.
7. Nations U. Men in families and Family Policy in a Changing World [Internet]. New York: United Nations publication; 2011. Available from: http://www.un.org/esa/socdev/family/docs/men-in-families.pdf
8. Ampt F, Mon MM, Than KK, Khin MM, Agius PA, Morgan C, et al. Correlates of male involvement in maternal and newborn health : a cross-sectional study of men in a peri-urban region of Myanmar. BMC Pregnancy Childbirth. 2015;15(122):1–11.
9. Obi AI, Abe E OO. Male and Community Involvement in Birth Preparedness and Complication Readiness in Benin city. J Dent Med Sci. 2013;10(6):27–32.
10. Kabagenyi A, Jennings L, Reid A, Nalwadda G, Ntozi J, Atuyambe L. Barriers to male involvement in contraceptive uptake and reproductive health services : a qualitative study of men and women ' s perceptions in two rural districts in Uganda. Reprod Health. 2014;11(21):1–9.
11. Iliyasu Z, Abubakar IS, Galadanci HS, Aliyu MH. Birth Preparedness , Complication Readiness and Fathers ' Participation in Maternity Care in a Northern Nigerian Community. Afr J Reprod Health. 2010;14(1):21–32.
12. Asefa F, Geleto A, Dessie Y. Male partners involvement in maternal ANC care: The view

of women attending ANC in Hararipublic health institutions, eastern Ethiopia. Sci J Public Heal. 2014;2(3):182–8.

13. Comrie-thomson L, Davis J, Luchters, Stanley, Webster Mavhu, Christina Makungu, Rasheda Khan, Quamrun Nahar, Saadya Hamdani ES. Men Matter: Engaging Men for Better MNCH Outcomes. Plan Canada, Toronto. 2015.
14. Jennings L, Na M, Cherewick M, Hindin M, Mullany B, Ahmed S. Women ' s empowerment and male involvement in antenatal care : analyses of Demographic and Health Surveys (DHS) in selected African countries. BMC Pregnancy Childbirth. 2014;14(297):1–11.
15. Ditekemena J, Koole O, Engmann C, Matendo R, Tshefu A, Ryder R, et al. Determinants of male involvement in maternal and child health services in sub-Saharan Africa : a review. Reprod Health. 2012;9(32).
16. Health FDR of EM of. HSDP IV, Annual performance report. 2015.
17. Gebrehiwot H, Bahta S, Haile N. Awareness of Danger Signs of Pregnancy and its Associated Factors among Pregnant Women who Visit ANC in Mekelle Public Hospitals. Am J Adv Drug Deliv. 2014;2(2):164–73.
18. Bhatta DN. Involvement of males in antenatal care , birth preparedness , exclusive breast feeding and immunizations for children in Kathmandu , Nepal. BMC Pregnancy Childbirth. 2013;13(14).
19. Ganle JK, Dery I. " What men don " t know can hurt women ' s health ' : a qualitative study of the barriers to and opportunities for men ' s involvement in maternal healthcare in Ghana. Reprod Health. 2015;12(93):1–13.
20. Adenike O, Asekun-olarinmoye Esther AA, AdeomiAdeleye, Olarewaju Sunday. Perception , attitude and involvement of men in maternal health care in a Nigerian community. J Public Heal Epidemiol. 2013;5(6):262–70.
21. Andersson N, Omer K, Caldwell D, Dambam MM, Maikudi AY, Effiong B, et al. Male responsibility and maternal morbidity : a cross-sectional study in two Nigerian states. BMC Health Serv Res. 2011;11(Suppl 2):1–11.
22. Kashitala J, Nyambe N, Mwalo S, Musamba J, Kasonde P, Lilja AM, et al. Is Male Involvement in ANC and PMTCT Associated with Increased Facility-Based Obstetric Delivery in Pregnant Women ? Afr J Reprod Health. 2015;19(2):116–23.

23. Kakaire O, Kaye DK, Osinde MO. Male involvement in birth preparedness and complication readiness for emergency obstetric referrals in rural Uganda. Reprod Health. 2011;8(12):1–7.
24. Faith M. Thuita KN. ENGAGING GRANDMOTHERS AND MEN IN INFANT AND YOUNG CHILD FEEDING AND MATERNAL NUTRITION: Report of a formative assessment in Eastern and Western Kenya [Internet]. Washington; 2011. Available from: www.iycn.org
25. Adeniran AS, Aboyeji AP, Fawole AA, Olayinka R, Adesina KT, Adeniran PI. Male Partner's Role during Pregnancy, Labour and Delivery: Expectations of Pregnant women in Nigeria. Int J Heal Sci Qassim Univ. 2015;9(3):306–13.
26. Singh D, Lample M, Earnest J. The involvement of men in maternal health care : cross-sectional , pilot case studies from Maligita and Kibibi, Uganda. Reprod Health. 2014;11(68):1–8.
27. Haile F, Brhan Y. Male partner involvements in PMTCT : a cross sectional study , Mekelle , Northern Ethiopia. BMC Pregnancy Childbirth. 2014;14(65):2–7.
28. Tweheyo R, Konde-lule J, Tumwesigye NM, Sekandi JN. Male partner attendance of skilled antenatal care in peri-urban Gulu district , Northern Uganda. BMC Pregnancy Childbirth. 2010;10(53).
29. Nasreen HE, Leppard M, Mamun M Al, Billah M, Mistry SK, Rahman M, et al. Men ' s knowledge and awareness of maternal , neonatal and child health care in rural Bangladesh : a comparative cross sectional study. Reprod Health. 2012;9(18):1–9.
30. August F, Pembe AB, Mpembeni R, Axemo P, Darj E. Men ' s Knowledge of Obstetric Danger Signs , Birth Preparedness and Complication Readiness in Rural Tanzania. PLoS One. 2015;10(5):1–12.
31. Kura S, Vince J, Crouch-chivers P. Male involvement in sexual and reproductive health in the Mendi district , Southern Highlands province of Papua New Guinea : a descriptive study. Reprod Health. 2013;10(46):1–10.
32. Demissie DB. Involvement of Male in Antenatal Care , Birth Preparedness and Complication Readinessand Associated Factors in Ambo Town. J Heal Med Nurs. 2016;27(5):14–23.
33. Amano, Abdella AM. Male involvement in PMTCT and associated factors among men

whom their wives had ANC visit 12 months prior to the study in Gondar town, North west Ethiopia, December, 2014. Pan Afr Med J. 2016;(1937-8688).

34. Abuhay Y, Abebe L, Fentahun N. Male involvement in prevention of mother to child transmission of HIV and associated factors among males in Addis Ababa , Ethiopia. Am J Heal Res. 2014;2(6):338–43.
35. Debiso AT, Gello BM, Malaju MT. Factors Associated with Men ' s Awareness of Danger Signs of Obstetric Complications and Its Effect on Men ' s Involvement in Birth Preparedness Practice in Southern Ethiopia , 2014. Adv PublicHealth. 2015;1–10.
36. Muhwava LS, Morojele N, London L. Psychosocial factors associated with early initiation and frequency of antenatal care (ANC) visits in a rural and urban setting in South Africa : a cross-sectional survey. BMC Pregnancy Childbirth. 2016;16(18):1–9.
37. Opeyemi A, Olabisi A, Oluwaseyi I. Attitude and Practice of Males towards Antenatal Care in Saki West Local Government Area of Oyo State , Nigeria. Adv Life Sci Technol. 2014;22:1–6.
38. Wai KM, Shibanuma A, Oo NN, Fillman TJ, Saw YM. Are Husbands Involving in Their Spouses ' Utilization of Maternal Care Services ?: A Cross-Sectional Study in Yangon , Myanmar. PLoS One. 2015;10(12):1–13.
39. Davis J, Vyankandondera J, Luchters S, Simon D, Holmes W. Male involvement in reproductive , maternal and child health : a qualitative study of policymaker and practitioner perspectives in the Pacific. Reprod Health. 2016;13(81):1–11.
40. Kululanga LI, Sundby J, Malata A, Chirwa E. Male Involvement in Maternity Health Care in Malawi. Afr J Reprod Health. 2012;16(1):145–58.
41. Kwambai TK, Dellicour S, Desai M, Ameh CA, Person B, Achieng F, et al. Perspectives of men on antenatal and delivery care service utilisation in rural western Kenya : a qualitative study. BMC Pregnancy Childbirth. 2013;13(134):1–10.
42. Byamugisha R, Tumwine JK, Semiyaga N, Tylleskär T. Determinants of male involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda : a cross-sectional survey. Reprod Health. 2010;7(12).
43. Audet CM, Chire YM, Vaz LME, Bechtel R, Carlson-bremer D, Wester CW, et al. Barriers to Male Involvement in Antenatal Care in Rural Mozambique. Qual Health Res. 2016;26(12):1721–31.

44. Nyondo AL, Chimwaza AF, Muula AS. Stakeholders ' perceptions on factors influencing male involvement in prevention of mother to child transmission of HIV services in Blantyre , Malawi. BMC Public Health. 2014;14(691):1–15.
45. Vermeulen E, Miltenburg AS, Barras J, Maselle N, Elteren M Van, Roosmalen J Van. Opportunities for male involvement during pregnancy in Magu district , rural Tanzania. BMC Pregnancy Childbirth. 2016;16(66):1–9.
46. August F, Pembe AB, Kayombo E, Mbekenga C, Axemo P, Darj E. Birth preparedness and complication readiness a qualitative study among community members in rural Tanzania. Glob Health Action. 2015;8(26922).
47. Onyango MA, Owoko S, Oguttu M. Factors that Influence Male Involvement in Sexual and Reproductive Health in Western Kenya : A Qualitative Study. Afr J Reprod Health. 2010;14(4):33–44.
48. Kaye DK, Kakaire O, Nakimuli A, Osinde MO, Mbalinda SN, Kakande N. Male involvement during pregnancy and childbirth : men ' s perceptions , practices and experiences during the care for women who developed childbirth complications in Mulago Hospital , Uganda. BMC Pregnancy Childbirth. 2014;14(54):1–8.
49. Diamond-smith N, Sudhinaraset M, Montagu D. Clinical and perceived quality of care for maternal , neonatal and antenatal care in Kenya and Namibia : the service provision assessment. Reprod Health. 2016;1–13.
50. Halaba Special Woreda HMIS. 2016;
51. JHPIEGO. monitoring birth preparedness and complication readiness; tools and indicators for maternal and newborn health. JHPIEGO. 2004;
52. Haftom Gebrehiwot, Woldegebriel Gebregziabher GG. Assessment of Husbands' Participation on Birth Preparedness and Complication Readiness in Enderta Woreda, Tigray Region, Ethiopia, 2012. Women's Heal Care. 2013;3(1):1–7.
53. Wilunda C, Quaglio G, Putoto G, Takahashi R, Calia F, Abebe D, et al. Determinants of utilisation of antenatal care and skilled birth attendant at delivery in South West Shoa Zone , Ethiopia : a cross sectional study. Reprod Health. 2015;12(74):1–12.
54. Adelekan AL, Edoni ER, Olaleye OS. Married Men Perceptions and Barriers to Participation in the Prevention of Mother-to-Child HIV Transmission Care in Osogbo , Nigeria. J Sex Transm Dis. 2014;(6).

55. Falnes EF, Moland KM, Tylleskär T, Paoli MM De, Msuya SE. " It is her responsibility ": partner involvement in prevention of mother to child transmission of HIV programmes , northern Tanzania. J Int AIDS Soc. 2011;14(21):1–12.
56. Kabakyenga JK, Östergren P, Turyakira E, Pettersson KO. Knowledge of obstetric danger signs and birth preparedness practices among women in rural Uganda. Reprod Health. 2011;8(33):1–10.
57. Agunwa CC, Nnebue CC, Duru CB, Aniebue PN, Aniebue UU, Ifeadike CO. Knowledge of Obstetric Danger Signs Among Women of Reproductive Age in Rural Communities in Enugu State , Nigeria. Am J Heal Res. 2015;3(6):376–80.
58. Demissie E, Dessie F, Michael FW, Tadele N. Level of Awareness on Danger Signs of Pregnancy among Pregnant Women Attending Antenatal Care in Mizan Aman General Hospital , Southwest , Ethiopia : Institution Based Cross-sectional Study. Women's Heal Care. 2015;4(8):1–4.
59. Bogale D, Markos D. Knowledge of obstetric danger signs among child bearing age women in Goba district , Ethiopia : a cross-sectional study. BMC Pregnancy Childbirth. 2015;15(77):1–8.
60. Karkee R, Baral OB, Khanal V, Lee AH. The role of obstetric knowledge in utilization of delivery service in Nepal. Health Educ Res. 2014;29(6):1041–8.
61. Dile M, Taddesse D, Gedefaw M, Asmama T. Knowledge of Obstetric Danger Signs and its Associated Factors in Debaytilatgin District , Ethiopia : A Community Based Cross Sectional Study. Gynecol Obstet. 2015;5(9):1–6.
62. Villadsen SF, Tersbøl BP, Negussie D, Gebremariam A, Tilahun A, Friis H, et al. Antenatal Care Strengthening in Jimma , Ethiopia : A Mixed-Method Needs Assessment. J Environ Public Health. 2014;10.

Annexes

Annex 1. Information Sheet

Title of the Research Project: - Male partner attendance of skilled antenatal care at Halaba town.

Name of Principal Investigator: - Keyredin Nuriye

Name of the Organization:-Addis Ababa University College of Medicine and Health Sciences, Allied School Of Health sciences

Name of the Sponsor Organization: - Addis Ababa university

Introduction: - This information sheet and consent form is prepared for households of some rural and some urban communities of males whose spouse give birth during the last two years. The research project group includes 10 third year clinical nurse students, two supervisor, and two advisors from Addis Ababa University

Purpose of the Research Project:

The main aim of the research project is to assess the male attendance of skilled antenatal care in Halaba town as this will provide valuable information to health care planners to design evidence based policy to improve maternal health

Procedure: In order to accomplish the project, we invite you to take part in our project. If you are willing, you need to understand and sign the consent form .Then, you will be requested to take the questionnaire and respond accordingly. Study participants are males whose woman give birth during the last year.

Risk and /or Discomfort: By participating in this research project you may feel some discomfort especially on scarifying your time (about 15-30 minutes) otherwise, no risk so your response provide an important input to show the gap and means to improve maternal health

Benefits:

If you are participating in this research project, the output of the study will have both direct and indirect benefits to you and your country by improving maternal health in the future.

Incentives/Payments for Participating:

You will not be provided any incentives or payment to take part in this project.

Confidentiality:

The information collected from this research project will kept confidential and information about you that will be collected by this study will be stored in a file, without your name, but a code number assigned to it and it will not be revealed to anyone except the principal investigator and will be kept locked with key.

Right to Refusal or Withdraw: You have the full right to refuse from participating in this research. (You can choose not to respond some or all the questions) and this will not affect you from getting any kind of health related service within the district.

Person to contact:

This research project will be reviewed and approved by the ethical committee of the Addis Ababa University. If you want to know more information you can contact the committee through the address below. If you have any question you can contact any of the following individuals and you may ask at any time you want.

1. **Mr. Endalew Gemechu(MSc,BSc,RN):-Addis Ababa University**
   Email: - endalewaau2012@gmail.com
2. **Mr. Keyredin Nuriye:- Wolkite University**
   Email: mkeyruye11@gmail.com
   Tell: - 0916268238

Annex 2: Consent form

GREETINGS

Good morning, Good afternoon, good evening (According to its convenience)

My name is _____. I am working with Keyredin Nuriye who is doing a research as partial fulfillment for the requirement of Master of Science in reproductive and maternity nursing at Addis Ababa University. We are interviewing male to assess their level of attendance to skilled ANC and I am going to ask you some questions that are very important for the programmers in health to plan for improved intervention.

Would you mind if I take some minutes with you? Your name will not be included in the information, I promise to keep the confidentiality of your reply. It takes us about 20 minutes. Though it seems long time the study helps to assess male partner attendance to ANC and improve the maternal and child health service in the future. As a result, I kindly request you to participate in genuinely answering the interview.

I agree to participate I don't agree to participate

Name of data collector---------- signature----------

Thank you for your cooperation!!

Annex 3. English version questionnaire

Direction: Choose one possible answer and circle it

NO	Questions	Response option	Code
Part I. Socio- demographic characteristics of male partner			
101	How old are you? (Completed year)	_____years	
102	What is your religion	1. Muslim 2. orthodox 3. protestant 4. catholic 5. others (specify)	**1** **2** **3** **4** **5**
103	What is your ethnicity?	1. Halaba 2. Kambata 3. Silte 4. Oromo 5. Amhara 6. Others	**1** **2** **3** **4** **5** **6**
104	Where is you residence	1. rural 2. urban	**1** **2**
105	What is the highest educational level you completed?	1. No education 2. primary education(1-8) 3. secondary education(9-12) 4. 12 and above	**1** **2** **3** **4**
106	What is your current occupation?	----------	
107	How much is your family income per month?	---------- Ethiopian birr	

108	What is the character of your marriage?	1. Monogamous 2. polygamous	**1** **2**
109	Are you currently living with your spouse?	1. Yes 2. No	**1** **2**
110	How old is your spouse?	----------years	
111	What is your spouse's education?	1. No education 2. Primary education 3. secondary education 4. 12 and above	**1** **2** **3** **4**
112	What is your spouse's occupation?	----------	
113	Who usually makes decisions about health care for the family members?	1. Yourself 2. Your spouse 3. Jointly with your spouse 4. Others(Specify)	**1** **2** **3** **4**
Part II. Knowledge on antenatal care and danger sign of pregnancy			
201	Is ANC service important for mother?	1. Yes 2. No	**1** **2**
202	If yes question number 201, When do you think it is appropriate time to begin the ANC after amenorrhea?	----------weeks	
203	How many times do you think women need to go for ANC in health facility during pregnancy?	----------times	
204	Do you know ANC services	1. Yes 2. No	**1** **2**

205	If your answer is yes to question 204, what are they? (more than one answer possible)	1. Stool test 2. Urinalysis 3. Screening fetal health 4. HIV test 5. Fetal monitoring 6. Immunization against tetanus 7. Iron supplementation 8. Advice on danger signs 9. PMTCT 10. Advice on skilled attendance at birth 11. Counsel on breastfeeding 12. Others ----------	**1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12**
206	Do you think that all pregnant women are at risk of pregnancy complication	1. Yes 2. No	**1** **2**
207	Do you know about the danger signs of pregnancy?	1. No 2. Yes	**1** **2**
208	If yes to question 207, what are they? (more than one answer possible)	1. Severe bleeding 2. Severe headache 3. Convulsion 4. High fever 5. Loss of consciousness 6. Swollen hands/ face 7. Severe abdominal pain 8. Water breaks without labour 9. Accelerated or reduced fetal movement 10. Other(specify)	**1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**

209	Did your spouse receive antenatal care (ANC) checkups?	1. Yes 2. No	**1** **2**
210	If yes question 209, how many times did she receive?	1. One time 2. Two times 3. Three times 4. Four and above	**1** **2** **3**
211	Who should accompany women for ANC checkups?	1. Husband 2. Mother in low 3. Sister in low 4. Others	**1** **2** **3** **4**
212	Did you accompany your spouse for ANC checkups?	1. Yes 2. No	**1** **2**
213	If no for question 212, why?	1. Fear of being tested HIV 2. Being busy 3. Neglecting importance 4. Away because of work 5. Not my concern 6. Others----------	**1** **2** **3** **4** **5** **6**
214	If yes to question 212, how many times did you accompany her?	1. One times 2. Two times 3. More than two times	**1** **2** **3**
215	Have you ever attend ANC health education?	1. Yes 2. No	**1** **2**
216	Did you provide money for transportation/drugs for ANC checkups?	1. Yes 2. No	**1** **2**
217	During the antenatal period, did your spouse experience any serious health problems?	1. No 2. Yes	**1** **2**

218	If yes to question 217, what problems did she experience?	1. Severe bleeding 2. Severe headache 3. Convulsion 4. High fever 5. Loss of consciousness 6. Swollen hands/ face 7. Severe weakness 8. Severe abdominal pain 9. Water breaks without labour 10. Accelerated or reduced fetal movement 11. Other(specify)	**1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**
Part III. Cultural belief about pregnancy			
301	Pregnancy is the domain of women/ women's affairs?	1. Yes 2. No	**1** **2**
302	ANC clinic is a place where the service is given only for women	1. Yes 2. No	**1** **2**
303	A pregnant woman can visit antenatal care without the permission of her husband/partner?	1. Yes 2. No	**1** **2**
304	Did you discuss with your wife about ANC visit during her last pregnancy?	1. Yes 2. No	**1** **2**
Part IV. Health facility factors (*This is only for those who accompanied*)			
401	Do you think antenatal care room is adequate to accompany pregnant women?	1. Yes 2. No 3. Don't know	**1** **2** **3**

402	Is anyone not allowed to the room other than health worker to ensure privacy?	1. Yes 2. No 3. Don't know	**1** **2** **3**
403	Is the health worker in the unit handling their clients very well?	1. Yes 2. No 3. Don't know	**1** **2** **3**
404	If no for question 403 specify your reason,	_____	
405	Is the place where ANC service given suitable for male?	1. Yes 2. No 3. Don't know	1 2 3
406	If no for question 405, specify your reason- (write the answers on the space)	----------	
407	Was the health worker in the unit making you to stay long time?	1. Yes 2. No 3. I don't know	1 2 3
408	If the answer is yes question 407, roughly how long did you stay to get the service? (write the answers on the space)	----------	
409	Did you happy with service you get from ANC unit?	1. Yes 2. No 3. Don't know	1 2 3
410	If no for question 409, specify your reason (write the answers on the space)	----------	
411	Is working hour of ANC clinic suitable for male?	1. Yes 2. no 3. don.t know	1 2 3
412	If no for question 411, specify your reason? (write the answers on the space)	----------	

Thank you

Annex 4. Amharic version consent form

የስምምነት ውል

ይህ መጠይቅ በሀላባ ከተማ የሚገኙት ያገቡ ወንዶች በእርግዝና ወቅት ከነፍሰጡር እናቶች ጋር ቅደመ-ወሊድ አገልገሎት ማገኘትን በተመለከተ ያላቸዉን ተሳትፎ ለመቃኘት የተዘጋጀ ጥናት ነዉ።

<u>የተሳታፊዎች ፈቃደኝነት መጠየቂያ ቅጽ</u>

ጤና ይስጥልን፡- እንደምን አሉ አቶ/ወ/ሮ ወ/ሪት_____ እባላለሁ። ከዚህ የመጣሁት ከአዲስ አበበ ዩኒቨርሲቲ ለሁለተኛ ድግሪ መመረቂያ ይህንን ጥናት ከሚያካሂደዉ ከአቶ ከይረዲን ኑሪዬ ቡድን አባል ሆኝ ነዉ።ከዚህ በመቀጠል ወንዶች በእርግዝና ወቅት ከነፍሰጡር እናቶች ጋር ቅደመ-ወሊድ አገልገሎት ማገኘትን በተመለከተ ያለወትን አስተያየት ለመቃኘት የተወሰኑ ጥያቄዎችን ልጠይቅ እወዳለሁ።ከእርስዎ የሚገኘዉ መልስ የስነ ተዋላዶ ጤና አገልግሎትን ለማሻሻል ከፍተኛ ዕገዛ ይኖረዋል። ከዕርስዎ የሚገኘዉን ማንኛዉንም መልስ በሚስጥር እንጠብቃለን።ከዚህ ጥናት ጋር በተያያዘ በማንኛዉም ቦታና ጊዜ ስምዎን እንደማይመዘገብና እንደማይጠቀስም ልንገልፅልዎ እንወዳለን።ለጥናቱ የምናሳትፈዎ የዕርስዎን ሙሉ ፈቃደኝነት ስናገኝ ብቻ ነዉ። በመጠይቁ ላለመሳተፍ ወይም በመጠይቁ ሂደት ሊመልሱት የማይፈልጉትን ጥያቄዎችን ያለመመለስ መብትዎ የተጠበቀ ነዉ።

በመጠይቁ ለመሳተፍ ፍቃደኛ ነዎት?

1. ፈቃደኛ ነኝ …….. 2. ፈቃደኛ አይደለሁም <u>ወደ ሌላ ተሳታፊ ቤት መሸጋገር</u>

   የመርጃ ሰብሳቢዉ ስም _____ ፊርማ_____

   መጠየቁ የተሞላበት ቀን_____ የተቆጣጣሪዉ ስም_____

Annex 5. Amharic version questioner

ትዕዛዝ - ከዚህ በታች የተዘረዘሩትን ጥያቄዎች መልስ ይሆናሉ ያሉትን ይክበቡ

ተ.ቁ	ጥያቄ	ምርጫዎች	ኮድ
<u>ክፍል 1.</u>	**<u>ማህበራዊና ስነ ህዝብ ገፅታዎች</u>**		
101	ዕድሜ	---------	
102	ሐይማኖት	1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌሎች------	1 2 3 4 5
103	ብሄር	1. ሀላባ 2. ካመባታ 3. ስልጤ 4. ኦሮሞ 5. አማራ 6. ሌላ (ይጥቀሱ)----	1 2 3 4 5 6
104	መኖርያ	1. ገጠር 2. ከተማ	1 2
105	የትምህርት ደረጃ	1. ያልተማረ 2. የመጀመሪያ ደረጃ (1-8) 3. ሁለተኛ ደረጃ (9-12) 4. 12ኛ እና ከዚያ በላይ	1 2 3 4
106	ሥራ	----------	
107	የቤተሰብ የወር ገቢ	--------- ብር	
108	የጋብቻ ሁኔታ	1. አንድ ሚስት 2. ከአንድ በላይ ሚሰት	1 2

109	የትዳር ጓደኛዎ ጋር ነዉ የሚተኖረዉ?	1. አዎ 2. አይደለም	1 2
110	የትዳር ጓደኛዎ ዕድሜ	----------	
111	የትዳር ጓደኛዎ የትምህርት ደረጃ	1. ያልተማረች 2. የመጀመሪያ ደረጃ (1-8) 3. ሁለተኛ ደረጃ (9-12) 4. 12 እና ከዚያ በላይ	1 2 3 4
112	የትዳር ጓደኛዎ የስራ ሁኔታ	1. የቤት እመቤት 2. ገበሬ 3. የመንግስት ሰራተኛ 4. ነጋዴ 5. ሌላ (ይጥቀሱ)	1 2 3 4 5
113	በቤተሰብዎ ጤና ጉዳይ ላይ የሚወስነዉ ማነዉ?	1. እርስዎ 2. የትዳር ጓደኛዎ 3. በጋራ ከትዳር ጓደኛዎ ጋር 4. ሌላ ይጥቀሱ----	1 2 3 4
ክፈል ሁለት. ቅድመ-ወሊድ ክትትል አገልግሎት ዕዉቀት በተመለከተ			
201	የነፍሰ-ጡር ህክምና ክትትል ማድረግ ለእናትዮዋ የሚጠቅማት ነገር አለ?	1. አዎ 2. አይደለም	1 2
202	መልስዎ ለጥያቄ 201 አዎ ከሆነ፣ የወር አበባዋ ከቆመ ከስንት ጊዜ በኋላ የነፍስ-ጡር ክትትል ብትጀምር ጥሩ ነዉ ይላሉ?	----------ሰምንት	
203	አንድ ነፍሰ-ጡር እናት በእርግዝና ጊዜዋ ስንት ጊዜ የነፍሰ-ጡር ክትትል ማድረግ ያስፈልጋታል?	----------ጊዜ	

204	በቅድመ ወሊድ ክትትል ወቅት ስለሚሰጡ አገልገሎቶች የዉቃሉ?	1. አዎ 2. አለዉቅም	1 2
205	መልስዎ ለጥያቄ 204 አዎ ከሆነ፤ የሚያዉቁትን አገልግሎት ይጥቀሱ? (ከአንድ በላይ መልስ ይቻላል)	1. የሰገራ ምርመራ 2. የሽንት ምርመራ 3. የጽንስ ጤና ምርመራ 4. ኤች አይ ቪ ምርመራ 5. የጽንስ ዕድገት ምርመራ 6. የመንፇፇ ቆልፍ ክትባት አገልግሎት 7. የደም ማነስ ክኒን 8. ከእርግዝናዉ ጋር ተያይዘዉ ስለሚከሰቱ የአደጋ ምልክቶች የምክር አገልግሎት 9. ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ የመከላከል አገልግሎት 10. በጤና ተቐም ስለመዉለድ የምክር አገልግሎት 11. ጡት ማጥባትን በተመለከተ የምክር አገልግሎት 12. ሌላ ይጥቀሱ---	1 2 3 4 5 6 7 8 9 10 11 12

206	ሁሉም ነፍሰ-ጡር እናቶች ከርግዝና ጋር በተያያዘ የጤንነት ችግር የማጋጠም እድል አላቸዉ?	1.አዎ 2.የላቸዉም	1 2
207	በዕርግዝና ወቅት ከእርግዝናዉ ጋር ተያይዘዉ ስለሚከሰቱ የአደጋ ምልክቶች ያዉቃሉ ?	1. አዎ 2. አለዉቅም	1 2
208	ለጥያቄ ቁጥር 208 መልስ አዎ ከሆነ የትኞቹን የአደጋ ምልክቶች ያዉቃሉ? (ከአንድ በላይ መልስ መመለስ ይቻላል)	1. የሽሉ እንቅስቃሴ መቀነስ (መቆም) 2. የእንሽርት 2ዉሀ መፍሰስ 3. የእጅ ፣ የፊት ፣ የሰዉነት ማበጥ 4. ከፍተኛ ራስ ምታት 5. የእይታ ድብዘዛ 6. ከባድ የሆድ ህመም 7. ከፍተኛ ትኩሳት 8. የሰዉነት መንዘፍዘፍ 9. አተነፋፈስ ችግር 10. ራስን መሳት 11. የደም መፍሰሥ 12. ሌላ ይጥቀሱ----------	1 2 3 4 5 6 7 8 9 10 11 12
209	በለፈዉ እርግዝና ወቅት ፣ሚስትህ የቅድመ ወሊድ አገልግሎት ተከታትላለች?	1. አዎ 2. አይደለም	1 2
210	መልስዎ ለጥያቄ 210 አዎ ከሆነ፤ ስንት ጊዜ ተከታተለች?	1. አነድ ጊዜ 2. ሁለት ጊዜ 3. ሦስት ጊዜ 4. አራት ጊዜ እና ከዚያ በላይ	1 2 3 4
211	በቅድመ ወሊድ ክትትል ወቅት ከነፍሰጡር እናት ጋር ወደ ጤና ተቐም አብሮ መሄድ የለበት ማን ነዉ?	1. ባል 2. የባል እናት 3. የባል እህት	1 2 3 4

		4. ሌላ ይጥቀሱ--------	
212	ከሚስትህ ጋር ለቅድመ ወሊድ ክትትል ወደ ጤና ተቐም ሄደህ ታዉቃለህ?	1. አዎ 2. አለዉቅም	1 2
213	መልስህ ለጥያቄ 213 አለዉቅም ከሆነ፣ ለምን?	1. መመርመር ስለፈራሁ 2. ጊዜ ስላልነበረኝ- 3. አስፈላጊነቱ አይታየኝም 4. ለስራ ወጣ ብየ ስለነበር 5. የኔ ጉዳይ አይደለም 6. ሌላ ካለ ይግለፁ---------	1 2 3 4 5 6
214	ለጥያቄ 212 መልስህ አዎ ከሆነ፣ ስንት ጊዜ አብረሀት ሄድክ?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ከሁለት በላይ	1 2 3
215	የቅድመ ወሊድ ክትትል ትምህርት አገልገሎት አግኝተህ ታዉቃለህ?	1. አዎ 2. አለዉቅም	1 2
216	ባለቤትህ ለቅድመ ወሊድ ክትትል ወደ ጤና ተቐም በምትሄድበት ወቅት ለመድሀኒት ወይም ለትራንስፖርት መግዣ ገንዘብ ሰጥተሀት ታዉቃለህ?	1. አዎ 2. አለዉቅም	1 2
217	ሚስትህ በእርገዝና ወቅት ዉስብስብ የጤና ችግር አሟት ነበር?	1. አዎ 2. አላመማትም	1 2
218	መልስዎ አዎ ከሆነ፣ ምን ዓይነት የጤና ችግሮች አጋመጠት (ከአንድ በላይ መልስ ይቻላል)	1. የሽሉ እንቅስቃሴ መቀነስ (መቆም) 2. የእንሽርት ዉሀ መፍሰስ 3. የእጅ ፣ የፊት ፣ የሰዉነት ማበጥ 4. ከፍተኛ ራስ ምታት	1 2 3 4 5 6

		5. የእይታ ድብዘዛ 6. ከባድ የሆድ ህመም 7. ከፍተኛ ትኩሳት 8. የሰዉነት መንዘፍዘፍ 9. አተነፋፈስ ችግር 10. ራስን መሳት 11. የደም መፍሰሥ 12. ሌላ ይጥቀሱ----------	7 8 9 10 11 12
ክፍል 3. ማህበራዊ እና በህላዊ ሁኔታዎችን በተመለከተ			
301	እርግዝና ሴቶችን ብቻ ነው የሚመለከተው?	1. አዎ 2. አይደለም	1 2
302	የቅድመ ወሊድ አገልግሎት የሚመለከተዉ ሴቶችን ብቻ ነው?	1. አዎ 2. አይደለም	1 2
303	ነፍሰጡር እናት ባለቤቷን ሰተስፈቅድ ወደ ቅድመ ወሊድ ክትትል መሄድ ትችላለች?	1. አዎ 2. አትችልም	1 2
304	ከባለቤትህ ጋር ስለ ቅድመ ወሊደ ክትትል ተወያይታችሁ ታዉቃላችሁ?	1. አዎ 2. አነዉቅም	1 2
ክፍል 4. የጤና ተቐምን በተመለከተ (*ከዚህ በፊት ለቅድመ ወሊድ አገልግሎት ለሄዱት ብቻ*)			
401	ለቅድመ ወሊድ ክትትል አገልግሎት የሚሰጥበት ሥፍራ በቂ ነዉ ብለህ ታስባለህ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
402	የግለሰቡን ሚስጥር ለመጠበቅ ስባል ከህክምና ባለሞያ ውጪ ሌላ ሰው እንዳይገባ ይከለከላል ወይ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
403	የህክምና ባለሞያው ባለጉዳዮችን በደንብ ያስተናግዳሉ ወይ?	1. አዎ 2. አይደለም	1 2

		3. አለዉቅም	3
404	መልስዎ ለጥያቄ 403 አይደለም ከሆነ፣ ምክንያቶን ይገለጹ?	------ ---------- ---- -- -- --- ----------	
405	የቅድመ ወሊድ አገልገሎት የሚሰጥበት ቦታ ለወንዶችም ምቹ ነው ወይ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
406	መልሶ ለጥያቄ 405 አይደለም ከሆነ ምክኒያቱን ይግለፁ?	---------- ----------	
407	የቅድመ ወሊድ አገልግሎት ቦታ ወረፋ ይበዘል ወይ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
408	መልስዎ ለጥያቄ 407 አዎ ከሆነ፣ አገልግሎት ለማግኘት ምን የህል ቆዩ?	----------ሰዓት	
409	በቅድመ ወሊድ አገልግሎት ወቅት ባገኙት አገልግሎት ደስተኛ ነዎት ወይ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
410	መልስዎ ለጥያቄ 409 አይደለም ከሆነ፣ ምክንየቶን ይግለፁ?	----------	
411	የቅድመ ወሊድ አገልግሎት የሚሰጥበት የስራ ሰአት ለወንዶች ምቹ ነው ወይ?	1. አዎ 2. አይደለም 3. አለዉቅም	1 2 3
412	መልሶ ለጥያቄ 411 አይደለም ከሆነ ምክንያቱ ምንድነው?	----------	

<u>አመሰግናለሁ</u>

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented in this or any other University and that all the source materials used for this thesis have been duly acknowledged.

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Place of Submission: Addis Ababa University College of Health science, Department of Nursing and Midwifery

Date of submission _____

This thesis work has been submitted for examination with my approval as University advisor:

Name: Endalew Gemechu (M.Sc., PhD fellow)

Signature _____

Date _____