ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Assessment of factors affecting women's intention to use long acting and permanent contraceptive methods among family planning clients of public health facilities in Ambo town, Oromia National Regional state, Ethiopia

BY

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A Thesis submitted to the school of graduate studies of Addis Ababa University in partial fulfilment of the requirements for the degree of masters of public health.

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ASSESMENT OF FACTORS AFFECTING WOMEN'S INTENTION TO USE LONG ACTING AND PERMANENT CONTRACEPTIVE METHODS AMONG FAMILY PLANNING CLIENTS OF PUBLIC HEALTH FACILITIES IN AMBO TOWN,OROMIA NATIONAL REGIONAL STATE ,ETHIOPIA

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A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF PUBLICE HEALTH

APPROVED BY THE EXAMINING BOARD

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Acronyms

BSc - Bachelor of Science
CBRHA - Community Based Reproductive Health Agents
CPR - Contraceptive Prevalence Rate
CSA - Central Statistical Agency
DHS - Demographic and Health Survey
EDHS - Ethiopian Demographic and Health Survey
FGD - Focus group Discussion
FP - Family Planning
HIV - Human Immune Deficiency Virus
IUCD - Intrauterine Contraceptive Device
IUD - Intrauterine Device
LAPMs - Long Acting and Permanent Methods
MCH - Maternal and Child Health
MOH - Ministry of Health
MSI - Mary stops International
NGO - Non Governmental Organization
PHF - Public Health Facility
SNNPR - South Nations and Nationalities People Region
SPSS - Statistical Package for Social Science
WHO - World Health Organization

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Abstract

Back ground - contraceptive prevalence in Ethiopia increased from 8.1% of women of reproductive age group in 2000 to 14.7% in 2005, but the prevalence of long acting and permanent contraceptive use has remained very low. There is a high unmet need for spacing and limiting, which implies a substantial number of unwanted pregnancies that could be avoided with the utilization of contraceptives especially long-acting and permanent methods. Intention to use a method of contraception is an important indicator of the potential demand for family planning services.

Objective- The objective of this study was to assess the magnitude of intention and factors affecting women's intention to use long acting and permanent methods among family planning clients of public health facilities in Ambo town, West Shoa zone, Oromia National Regional State, Ethiopia.

Methods-The study design was facility based both cross-sectional quantitative and qualitative method. A total of 519 family planning clients were selected from the three public health facilities by using systematic random sampling. The sample size was assigned to each health facility proportionally to their daily client flow for the quantitative part, and 22-women were selected purposively for the qualitative study by taking into consideration different socio demographic factors. Data entry& data analysis was done by Epi Info version 6 soft ware package and SPSS version 11. Bi-variate and multivariate logistic regression was employed.

Results- The prevalence of intention to use LAPMs among clients of other modern contraceptive methods users was about 291(56.1%). Women's knowledge on LAPMs, attitude on LAPMs and total number of alive children the women had were significantly associated with the intention to use LAPMs in the future at $p<0.05$. The knowledge of LAPMs in the study area was 296(57%). Among LAPMs, implant was known by 289(97.6%) and the least known was vasectomy 78(26.4%).

Conclusion and recommendation: intention to use LAPMs depends on knowledge and attitude on LAPMs and total number of alive children the women had. There is a desire to use long acting and permanent contraceptive methods in the future in the area. Investment on LAPMs in the area, improving the attitude and knowledge on LAPMs are important factors for the improvement of uptake of long acting and permanent contraceptive methods.

1. Introduction

The current world population projection is just over 9 billion. Because of poor family planning services and poor attitudes in many parts of the world the earth may be forced to accommodate many more than this number. About 350 million couples worldwide, a third of all couples of reproductive age still lack access to a full range of family planning services, to enable them to space their children or limit the size of their families. (1)

Sub-Saharan Africa has the highest fertility rates of any world region 5.4 births per woman on average double that of Asia (excluding China) and more than three times that of Europe(2). Although developing countries have made much progress in expanding the availability and use of family planning services, the need for effective contraception in general (and long-acting and permanent methods in particular) is large and growing because the largest cohorts in human history are entering their reproductive years(3).

All modern methods which provide a wide range of protection from durations of as short as days to permanent protection such as voluntary surgical sterilization, intra uterine device, pills, injectables, condoms and other barrier methods are available in Ethiopia. However, utilization is limited very much to the shorter-term methods such as pills and injectables- (4)
According to EDHS 2005, 34% of currently married women have unmet need for family planning, with 20% having an unmet need for spacing and 14% having an unmet need for limiting. The contraceptive prevalence rate for married women who are currently using methods of family planning is 15%. Almost all of these users are using modern contraceptive method. The most widely used methods are injectables (10%) followed by oral contraceptives (3%).IUCD, Implants and female sterilization are the least used methods of modern contraceptive each accounts only 0.2%(5)

Wider access to and use of family planning, especially long acting (IUD/IUCD, and Implants and permanent (tubal Legation and vasectomy) methods of contraceptive which are the most effective contraceptive available can substantially reduce the high levels of maternal mortality and morbidity in developing countries(3)

Statement of the problem

Of the 210 million pregnancies occurring each year worldwide, nearly 80 million are unintended. Access to safe and voluntary family planning counselling and services significantly reduces unintended pregnancies and abortions and saves women's lives (6).

Women and couples who want safe and effective protection against pregnancy would benefit from access to more contraceptive choices, including long-acting and permanent methods (LAPMs) (7). The lack of contraceptives results in unplanned pregnancy, unplanned family size, increased population size, environmental degradation, food insecurity and grinding poverty(8)

In Sub-Saharan Africa, 48.8 million women nearly half the married women of reproductive age want to space births or limit their number of births. However, fewer than half (22 million) currently use any contraceptive method, and less than one in seven uses a modern method. There are compelling reasons to invest in long-acting and permanent contraceptive methods (LAPMs) IUDs, implants, and male and female sterilization in Sub-Saharan Africa(9).

Contraceptive prevalence in Ethiopia increased from 8.1% of women of reproductive age group in 2000 to 14.7% in 2005, but the prevalence of long acting and permanent contraceptive use has remained very low(5)

Rationale of the Study

There has been no studies conducted on the factors affecting women's intention to use long acting and permanent contraceptive (LAPMs) in Oromia specifically there were no studies conducted in Ambo town. Moreover, almost all modern contraceptive use in Ethiopia is dependent on short acting contraceptive methods like pills, injectables and Condom in contrary to other developing countries. According to the EDHS 2005 although, the Knowledge of at least one method of contraception by both spouses is relatively high (84 percent), the unmet need was still high (34%). This implies a substantial number of unwanted (unplanned) pregnancies that could be avoided with the utilization of contraceptives particularly the most effective ones LAPMs.

Therefore, this study tries to assess factors influencing the women's intention to use long acting and permanent family planning methods among users of other modern contraceptives (non users of LAPMs) at public health facilities in Ambo town. Finally, this study will serve as a base line for family planning programmers in designing any program that are effective in reaching women with unmet need and to improve the quality of family planning services. Moreover it contributes a lot in improving the knowledge and utilization of long acting and permanent family planning methods in the study area.

Literature Review

The widespread adoption of family planning represents one of the most dramatic changes of the 20th century. The growing use of contraception around the world has given couples the ability to choose the number and spacing of their children and has had tremendous lifesaving benefits. Yet despite these impressive gains, contraceptive use is still low and the need for contraception is high in some of the world poorest and most populous places(6).

The IUD is the second most commonly used contraceptive method among married women of reproductive age in the world, after female sterilization, and the most commonly used reversible contraceptive. However, in many developing countries, the IUD is used at a very low rate compared to other modern methods(10).

In Sub-Saharan Africa, only 2.7 million women are currently using LAPMs fewer than one in eight contraceptive users. Although LAPMs are generally in low use in sub Saharan African family planning programs, evidence suggests that if and when potential clients have correct information on the methods and services are made widely available, long-acting and permanent contraceptive methods will be adopted (9).

Sub-Saharan Africa has the highest fertility rates of any world region – 5.4 births per woman on average – double that of Asia (excluding China) and more than three times that of Europe. Only 18 percent of married women in sub-Saharan Africa use modern methods of family planning. Modern contraceptive use is 58 percent in Southern Africa, 22 percent in Eastern Africa, and only 7 and 9 percent in Central and Western Africa, respectively. An estimated 35 million women in sub-Saharan Africa have an unmet need for family planning. They want to delay or stop childbearing but are not using any contraceptive method (11).

A Study conducted in Bangladesh on determinants of contraceptive method choice in rural Bangladesh showed that contraceptive use increases with age and number of living children and injectables and IUDs were preferred by relatively young or low-parity women while permanent methods were preferred by the relatively older or high- parity women. In the same study use of pills, condom and other traditional methods increase with education while use of permanent methods decrease with education. This is probably related to provider-biased in

the areas of counselling because they assume that pills and condom can be more efficiently used by the educated than by the uneducated(12).

A study conducted in El Salvador on reason for the low level of IUD use showed that rumours and myths about IUD, insufficient attention to the method during counselling sessions and insufficient provider experience with the method are among the main reasons for the low level of IUD use in El Salvador(13).

In a study conducted in India, in Andhra Pradesh, Female sterilization or tubectomy is more popular among the women who reported knowledge of the contraceptive methods. In general, knowledge of spacing methods is very low among the women interviewed in the study. Knowledge of pills, condom, tubal ligation, vasectomy and IUCD in the study were 23%, 8%,75%,67% and 6% respectively (14).

In developing countries, 20 percent to 30 percent of women who use oral contraceptives or injectables stop within two years of starting because of side effects or other health concerns. Many of these women could benefit from switching to LAPMs. The lack of availability of commodities, of equipment and supplies, and of opportunities to train providers is a persistent barrier to the use of LAPMs in some areas of sub-Saharan Africa (7).

According to EDHS 2005, the uses of contraceptives particularly long acting and permanent methods are very low. Female sterilization, IUCD and Implants each accounts only 0.2% among currently married women and 0.2%, 0.1% and 0.1% respectively in all women. Among the modern methods the pill is the most widely known method (84%) followed by injectables (83%) by currently married women. Knowledge of LAPMs is very low, for Example IUCD knowledge by males and male sterilization knowledge by females is only 12% and 5.5% respectively. More than half (52 percent) of currently married women who were not using any contraception at the time of the survey say that they intend to use a family planning method sometime in the future. The proportion of women who intend to use in the future varies by the number of living children, increasing from 44 percent for those with no living children to a peak at 60 percent among those with one child. There has been an increase in the proportion of married women not using at the time of the survey but who intend to use in the future (from 46 percent in 2000 to 52 percent in 2005). In the same survey, about 0.2%, 0.3%, 1.7% of participants intend to use female sterilization, IUCD and implants, respectively(5).

A study conducted in Jinka town, SNNPR showed that only 18% of the study participants have knowledge about long acting and permanent family planning methods. Majority of these with knowledge have modern education while 89.4% of illiterates have no knowledge on LAMPs. Do not know LAPMs, being single, want pregnancy, health problems, fear of side effects, fear of sterility, and use other modern methods were among the reasons raised by the participants for not using long acting and permanent family planning methods. In the same study about 62.6% of participants have intention to use long acting and permanent contraceptives in the future (15)

In previous study conducted in North Gondar pills and injectables are known by 82.8% of respondents while knowledge on others was almost nil. The desire to have many children was mentioned by a large proportion of women as a reason for not ever using and not desiring to take contraceptives in the future. In the same study injectables, pills and IUCD were used by 64.2%, 34.5 and 1.2%, respectively. The fact that only three methods were used by the clients shows that family planning service providers depend only on the family planning methods which are available in health institutions (16).

Contraceptive use differs significantly across educational categories. Current use increases five-fold from 10 percent among women with no education to 53 percent among those with secondary and higher levels of education and wealth has a positive effect on women's contraceptive use, with use increasing markedly as wealth increases, from 4 percent among married women in the lowest wealth quintile to 37 percent among those in the highest wealth quintile. (5)

A study done on improving the range of contraceptive choices in rural Ethiopian Tehuleder woreda in South Wello Zone showed that, 26.1% of the participates had no education, 54.1% had formal education and the remaining had informal education. The majority (73.9%) of the participants got information on family planning from CBRH program and knowledge for modern contraceptive is found to be over 90% (17).

According to EDHS 2005, family planning information is largely disseminated through radio with limited dissemination through television or the print media. That 29 percent of women heard about family planning on the radio compared with only 11 percent of women who got family planning information from the television and 8 percent who got such information from newspapers or magazines. Consistent with the level of exposure to mass media, exposure to family planning messages varies by the gender of respondents that men are more likely to be exposed to family planning messages than women for all media types (5).

An assessment of the reasons for the low use of IUD in Ethiopia concluded that inadequate information about the method, lack of access and unfounded rumours about the side effects of the method were the most important barriers to use the method (18)

According to the report on youth Reproductive Health in Ethiopia, more than one in two women and two in three men who are currently not using a method of family planning intend to use a method sometime in the future. To the contrary about two-fifths of women and one-fourth of men do not intend to use a method of family planning in the future. The primary reasons for not intending to use in the future are, desire for more children, opposition to use by husband or others , lack of knowledge, health concern and fear of side effects(19).

In a study conducted in Bure woreda, West Gojjam zone on family planning method mix and effects of lack of preferred contraceptive methods, use of IUD and Norplant were found to be -0.2% and 0.2%, respectively. Moreover, among users of a method due to unavailability of their method of choice; 60 (52.6%) had preferred Norplant, 1.8% for IUD and 3.5% had preferred male sterilization. In the same study it was found that among those who have unintended pregnancy due to lack of their preferred method, 32.4% had preference for Norplant, 5.1% for IUCD, 3.5% for female sterilization and 2.1% had preference for male sterilization. Furthermore, from participants who have had intention to wait for the next pregnancy, most, 367 (59.2%) want to use injectables, 219 (35.3%) want Norplant, 3.5% want female sterilization and 1.1% want male sterilization(20).

In conclusion, the current world population is increasing without a significant increasing rate of contraceptive use in many parts of the world, particularly in the developing countries. These result in environmental stress, climate change, shortage of basic resource and high maternal and child mortality and morbidity. Different factors were identified for the low utilization of family planning methods, particularly LAPMs including: poor knowledge, negative attitude, misconceptions, rumors and myths, poor quality of services, poor educational status and inaccessibility of reproductive health information and services. Therefore, investigating factors affecting women’s intention to use long acting and permanent contraceptive methods in the local area will contribute in improving the knowledge and use of the methods.

2. Objectives of the study

General objective

- To assess the prevalence and factors influencing women's intention to use long acting and permanent methods of family planning in Ambo town, Oromia National Regional State.

Specific objectives

- To assess the magnitude of family planning client's intention to use LAPMs.
- To identify the knowledge and attitude concerning long acting and permanent methods.
- To assess factors affecting intention to use long acting and permanent contraceptive methods.

3. Methodology

3. 1. Study design

The study used both quantitative and qualitative study methods in the form of facility based cross-sectional study using pretested interviewer-administered questionnaires for clients of modern contraceptive methods, and FGD with selected clients respectively.

3.2. Study area and period

Study area: The study was conducted in Ambo town, the capital town of West shoa zone, Oromia Regional State. It is one of the 21-districts found in west shoa zone, located to the west at -114kms away from Addis Ababa on the main road to Wollega with the altitude of 2100m above sea level and temperate climate. Administratively the town is divided in to six-kebeles with estimated population of 50,267 with 25,677 and 24,590 males and females respectively(21).The town has one zonal hospital, one health center, one MCH clinic and two health posts which belongs to government, 12 nongovernmental (1MSI, 11private Health Institutions). The study was conducted in Hospital, health center and MCH clinic. The two health posts are excluded purposely because since they are new they have no client flow. According to the Ambo town Health Office facility based activity report, the contraceptive acceptance rate of the woreda for 2001 E.C. was 95.2% of which LAPMs contribute 3.8%. Physical health service coverage was 95%(22)

Oromo followed by Amhara ethnic groups are the dominant native of the area with the Orthodox Christian dominant religion followers and Afan Oromo and Amharic are the main language spoken in the area.

Study period: The study was conducted between August and June, 2010.

3.3 Source population

All women aged 18-49years living in Ambo town at the time of the survey.

3.4. Study population

All women came for other modern methods of family planning service to the health facility.

Inclusion criteria:-

- Women of reproductive age group (18-49 Years) who came for modern contraceptive methods service to health facility.
- Permanent resident of the town. Women who live in Ambo at the time of the survey.

Exclusion criteria:-

- Women who do not come to health facility at the time of the survey for family planning service.
- Women who are mentally incompetent with the context of the questionnaire.
- Women currently using LAPMs and came for follow up counselling or removal.
- The legally under aged for verbal consent 15-17 years age group were excluded from the study.

3.5 Sample size and sampling procedures

Sample size (n) was determined based on single population proportion formula with the following assumptions. From previous study conducted in Butajira town, the proportion of intention to use LAPMs was taken as 65.8% with expected margin of error (d) 5% ,95% confidence level($Z_{\alpha/2}$) and 1.5 design effect(23) . Accordingly the required sample size for the study using the following formula was 519.

$$n = \frac{(Z_{\alpha/2})^2 P (1-P)}{d^2}$$

Where: Z=standard score corresponding to 95% confidence interval=1.96

P=Assumed proportion of intention to use LAPMs = 0.658

d=the margin of error (precision) 5%

Design effect =1.5

$$n = \frac{(1.96)^2(0.658)(1-0.658)}{(0.05)^2} = 346$$

Considering design effect of 1.5, total sample size calculated was 519

Sampling procedure

The study was conducted in three selected public health facilities in Ambo town. As all the three health facilities were in the same town, it was impossible to calculate the sample size from the catchment population. Therefore, average number of clients who were served for the previous three months prior to the survey were considered for the sample size determination. Accordingly, there were 440,440 and 1320 clients at health center, Hospital and MCH clinic respectively served for family planning in one month on average. Thus, on average 20, 20 and 60 clients visited the hospital, health centre and MCH clinic respectively daily. Accordingly 519 study subjects were selected proportionally as follow.

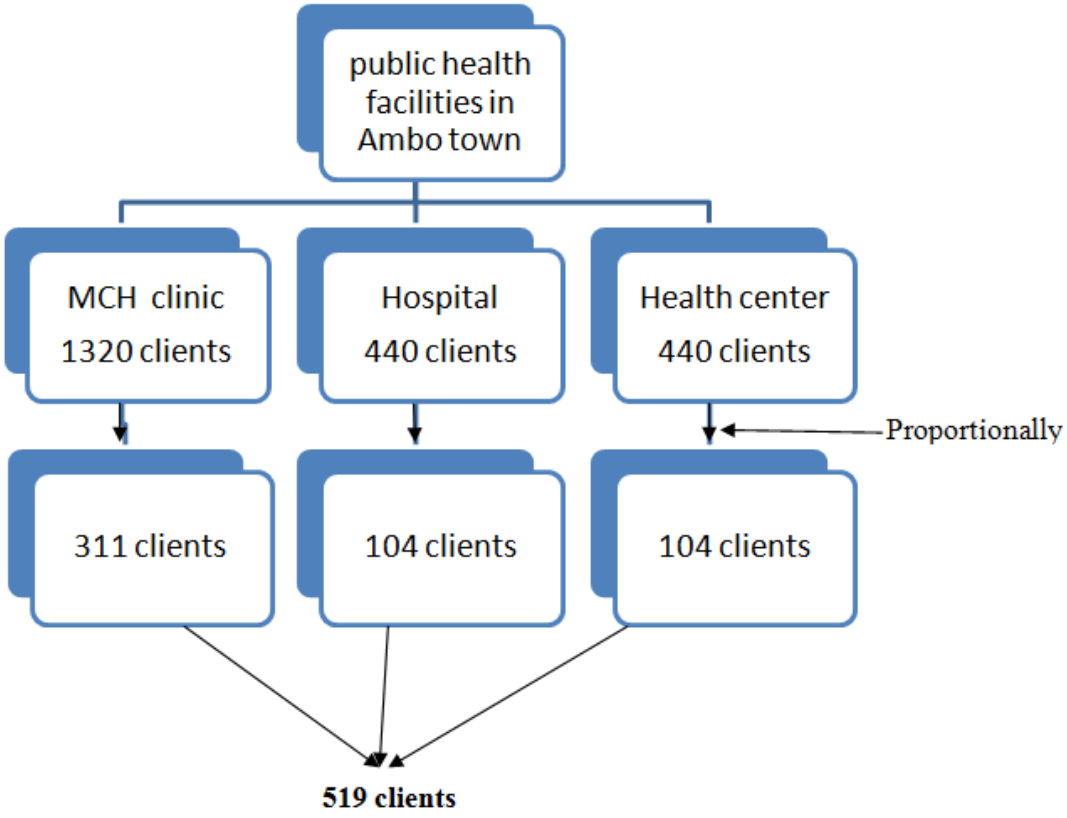

Fig.1. Schematic presentation of sampling procedure for Quantitative method

To select study subjects within each facility systematic sampling was used. Every 4th clients were interviewed throughout the data collection period from each health facility. The third client was selected randomly from first four clients visited the units. The participants for the qualitative study (FGD) were also selected from clients of other modern contraceptive methods at health facilities.

3.6 Data collection and data quality

Quantitative Study

Structured questionnaire was developed by reviewing different literatures, and adapted to local situation with certain modifications. The questionnaire was prepared originally in English and then translated to Afan Oromo and back to English. The interview process was administered in Afan Oromo. Data collection was conducted by 3- trained health workers (Diploma, Nurses) who are not working at that specific health facility to reduce interviewer bias and 1-Bsc nurse supervisor to supervise the 3- enumerators. A two days training regarding data collection was given to the data collectors and supervisor by the principal investigator. Questionnaire was pre-tested in similar settings outside the study area. Data were collected through interviewer administered questionnaire.

Qualitative Study

Qualitative assessment was used to gather information to explore and understand some aspects that may not be addressed by quantitative method. Issues addressed include knowledge and attitude towards long acting and permanent family planning methods, their intention to use LAPMs and factors that affect their intention to use these contraceptive methods. Two focus group discussions (FGDs) were conducted with other modern contraceptive users with one group containing 12- women and the other 10-women. The focus group discussion was conducted by the principal investigator and 1-raporter (note taker).

Data quality

In order to assure the quality of data, data collectors were trained and the questionnaire was pre-tested. Supervisor and the Principal investigator reviewed filled questionnaire on daily bases. The pretesting was also served as a practical session for the data collectors so as to be well acquainted with the data collection instrument. Based on the findings from the pre-testing the questionnaire was modified.

3.7 Data analysis

Data was entered in to EPI-6 statistical software package for cleaning and was exported to SPSS version 11.0 for statistical analysis. Data was presented and summarized using tables and graphs. Descriptive statistics was used to determine the level of knowledge and attitude of modern family planning clients on LAPMs and proportion of clients who wants to use LAPMs. Factors associated with intention to use long acting and permanent contraceptive methods was analysed by Bi-variate followed by multivariate logistic regression to determine independent predictors at 95% confidence interval. The qualitative data was recorded using cassette recorder tape and then the conversation was transcribed manually and analyzed. The information obtained was triangulated with the quantitative information to answer the research question.

Variables

Dependent variable: – intention to use LAPMs.

Intention to use was measured in the form of Yes/No question. Those clients responded yes to intention question was regarded as they had intention to use LAPMs.

Independent variables

Socio demographic and economic factors: - age, level of education, religion, marital status, income and occupation.

Reproductive health factors: - age at marriage, family size, ideal number of children, decision- maker on family size, history of abortion and number of live children.

Other factors: - knowledge and attitude towards LAPMs, source of information and service, spousal communication and reason for not intending to use LAPMs.

3.8. Operational definitions of terms:-

- **Other modern methods -** contraceptives other than LAPMs and natural methods.
- **LAPMs -** long acting and permanent contraceptives those are useful as a family planning method for many years and /or permanently if used once and include methods like Implant, IUCD, Female sterilization and vasectomy (male sterilization).
- **Modern Education**- education level from grade one up to grade twelve.

- **Very good knowledge-** those who know five or more distinct characteristics of LAPMs from knowledge questions.
- **Good knowledge -** those who know one to four distinct characteristics of LAPMs from knowledge questions.
- **Poor knowledge -** those who only name a method of the LAPMs**.**
- **Good attitude -** those who score equal to or above average, (6.44 points), in a composite measure for attitude on LAPMs from 11 points, maximum possible score.
- **Poor Attitude** – those who score below average, (6.44 points), in a composite measure for attitude on LAPMs from 11 points, maximum possible score.
- **Intention to use**-women who were not using but want to use LAPMs in the future.
- **Ever use-** a woman who ever used any of LAPMs

4. Ethical consideration

Addis Ababa university school of public health ethical review committee was provided ethical clearance and approval for the study. Permission was obtained from Oromia Regional Health bureau, West shoa zone health department and Ambo district health offices. The objectives of the study were explained to the study participants and written informed consent was obtained from all women participating in the study. Interviews with the women were made at the most private place. In order to assure confidentiality mothers name was not written on the questionnaire. Instead of name, code was used. There was no known risk posed by the study to the study participants. Participation was voluntary and they can withdraw from the study at any time without explanation and without penalty or loss of benefit. Confidentiality was assured and no personal details was recorded or produced on any documentation related to the study.

5. Dissemination of results

The study finding primarily would be presented to Addis Ababa University School of public health, Oromia Regional health bureau, West shoa zone health department and Ambo district health office. It will be also disseminated to different organizations that are working to improve utilization of long acting and permanent contraceptive methods. Efforts will also be made to publish in scientific health journals and present in various seminars and workshops.

6. Result

6.1. Socio demographic and economic characteristics of the study population

Five hundred nineteen women of reproductive age group participated in the quantitative survey making a response rate of 100%. Four hundred fifty three (87.3%) of the respondents were in the age group of 20-39 with mean and median ages of 28years respectively (Minimum 18 years and Maximum 45years, SD-6.13years). Four hundred fifty four (87.5%) participants were married, followed by singles, 43(8.3%) and others, 22(4.3%).Orthodox is the major religion contributing for 315(60.7%) followed by protestant, 146 (28.1%) and Muslim, 40 (7.7). Moreover, more than three fourth of participants, (81.9%) were Oromos by ethnicity, followed by Amhara, 63(12.1%) and others-31(6%). More than half of participants, (64.2%) have formal education and above, out of which 38(7.3%) have college and above education. Nearly half, 258(49.7%) of the respondents were housewives followed by merchants, 96 (18.5%) and students, 69(13.3%). Concerning household items, 432(83.2%), 215(41.4%) and 435(83.8%) of the households of participants had Radios, Televisions and electricity respectively. (Table-1)

Table 1.Sociodemographic and economic characteristics of study population, Ambo town, March/April 2010

Variable	Frequency	Percent
Age(years)	**(N=519)**	
15-19	36	6.9%
20-24	113	21.8%
25-29	172	33.1%
30-34	104	20%
35-39	64	12.3%
≥40	30	5.8%
M±SD	28.04±6.13	
Marital Status		
Single	43	8.3%
Married	454	87.5%
Others	22	4.2%
Religion		
Orthodox	315	60.7%
Muslim	40	7.7%
Protestant	146	28.1%
Others	18	3.5%
Educational status		
Illiterate	130	25%
Read and write only	56	10.8%
Primary	177	34.1%
Secondary	118	22.7%
College & above	38	7.3%
Ethnic composition		
Oromo	425	81.9%
Amhara	63	12.1%
Others	31	6%
Occupation		
Student	69	13.3%
Merchant	96	18.5%

Government/NGO employee	47	9.1%
Housewife	258	49.7%
Others	49	9.5%
Household facility*		
Radio	432	83.2%
Television	215	41.4%
Electricity	435	83.8%

***multiple response

6.2 Reproductive health characteristics of the study population

Of the total participants, 352 (68.3%) had more than or equal to four family size and the median family size was 4(±1.9, Ranges from 1-12). Three hundred fifty two (73.9%) were 18-24years when first married and 110 (23.1%) had married before 18 years with mean age at first marriage of 19 years. Two hundred seventy one (52.2%) and 157(30.3%) participants want to have three to four children and 1-2children respectively. Eighty five participants (16.4%) had history of abortion out of which, 75(88.2%) had abortion once and the rest two times and above. Of those with history of abortion, 74(87.1%) were married followed by singles, 9(10.6%). Concerning decision making on the number of children, 440(84.8%) reported that both husband and wife should together decide on the number of children they want to have. (Table 2)

Table -2 .Reproductive health characters of the study population, Ambo town, March/April 2010

Variable	Frequency	Percent
Family size	**(N=519)**	
<4	163	31.7%
≥4	352	68.3%
Age at marriage (years)	**(N=476)**	
<18	110	23.1%
18-24	352	73.9%
>24	14	2.9%
M±SD	18.9±2.35	
Total live children	**(N=453)**	
1-2	223	49.2%
3-4	165	36.4%
5 & above	65	14.3%
M±SD	2.5±1.8	
History of abortion		
Yes	85	16.4%
No	434	83.6%
Total children wanted	**(N=519)**	
1-2	157	30.3%
3-4	271	52.2%
5 & above	91	17.5%
M±SD	3.5±1.3	
Decision maker on № of children		
Husband	38	7.3%
Wife	38	7.3%
Both	440	84.8%
Others	3	0.6%

6.3. Awareness on long acting & permanent methods (LAPMs)

Concerning awareness on long acting and permanent methods (LAPMs), 296 (57%) had knowledge on LAPMs. Two hundred sixty six (89.9%) of those with knowledge were married women followed by singles 21 (7.1%). Nearly three fourth of those with knowledge on LAPMs, had modern education and above, while 106(57%) illiterates had not.

Concerning the use of LAPMs as any contraceptive methods, 158 (53.4%) and 174(58.8%) of those with knowledge reported LAPMs as useful to prevent unwanted pregnancy and child spacing respectively. Furthermore, 119(40.2%) participants reported the use of LAPMs for

preventing maternal and child mortality and morbidity and 184(62.2%) to limit the number of family size. From the LAPMs (Implant, IUCD, Female sterilization and Vasectomy) known by respondents, Implant is known by 289(97.6%) participants followed by IUCD, 186 (62.8%), female sterilization, 88 (29.7%) and vasectomy 78(26.4%). Two hundred nine (70.6%) of those with knowledge about LAPMs got the information from mass media followed by health institution 197 (66.6%). Two hundred seven (69.9%) participants knew at most two methods. (Table- 3)

Table -3 .Awareness on LAPMs, Ambo town, March/April 2010

Variable	Frequency	Percent
Knowledge of any LAPMs	**(N=519)**	
Yes	296	57%
No	223	43%
LAPMs prevent unwanted pregnancy	**(N=296)**	
Yes	158	53.4%
No	138	46.6%
LAPMs used for child spacing		
Yes	174	58.8%
No	122	41.2%
LAPMs used to decide on the family size		
Yes	184	62.2%
No	112	37.8%
LAPMs prevent maternal &child mortality & morbidity		
Yes	119	40.2%
No	177	59.8%
Know ≥3 general uses of LAPMs		
Yes	86	29.1%
No	210	70.9%
Methods of LAPMs known*		
IUCD	186	62.8%
Implant	289	97.6%
Tubal ligation	88	29.7%
Vasectomy	78	26.4%
Know ≤2 methods	207	69.9%
Know ≥ three methods	89	30.1%
Source of information*		
Gov.health facilities	197	66.6%
Family member	113	38.2%
Friends	97	32.8%
Mass media	209	70.6%
Others sources	7	2.4%

*multiple response

6.4. Knowledge on IUCD, Implant, Vasectomy and tubal ligation (LAPMs)

Of the total participants with knowledge on LAPMs, 110 (37.2%) didn't know any characteristics of IUCD. Out of those with knowledge of IUCD only 7(2.4%) and 173 (58.4%) participants had very good and good knowledge on IUCD, respectively. Moreover, 40(13.5%) reported that IUCD as very effective and, 169 (57.1%) as long acting (usually used for more than ten years).Two hundred seventy nine (94.3%) don't know that it is not good for female at high risk of getting STIs. Only 29(9.8%), 98(33.1%) and 45(15.2%) of participants responded that it had no effect on breast feeding, is immediately reversible and had minimal side effect, respectively.

Of those who have had knowledge about LAPMs, 7(2.4%) know nothing about implants. Among knowledgeable respondents on implant, 9 (3%) and 234(79%) had very good and good knowledge, respectively. Moreover, greater than three fourth of the participants know that it is long acting (used for up to five years), 138(46.6%) of the participants know that it is immediately reversible and120 (40.5%) know that it's insertion and removal requires minor surgical procedure. Besides, no more than 26(8.8%) participants know that it is very effective and only 38(12.8%) responded that it had no effect on breast feeding. Two hundred fifty five (86.1%), 250(84.5%) and 158(53.4%) didn't know that it had no interference with sexual intercourse, that implant has minimal side effect and immediately reversible method respectively. (Table-4)

Table -4 .Knowledge on IUCD & implant among the study population, Ambo town, March/April 2010

Characteristics of IUCD*	Know/Yes № (%) (N=296)	Don't Know /No №(%)
It is very effective	40(13.5%)	256(86.5%)
It is long acting	169(57.1%)	127(42.9%)
No effect on breast feeding	29(9.8%)	267(90.2%)
Not good for female at high risk of getting STIs	17(5.7%)	279(94.3%)
No interference with sexual intercourse	43(14.5%)	253(85.5%)
Immediately reversible	98(33.1%)	198(66.9%)
Has minimal side effect	45(15.2%)	251(84.8%)
Knowledge level		
Very good knowledge	7(2.4%)	289(97.6%)
Good knowledge	173(58.4%)	123(41.6%)
Poor knowledge	6 (2%)	290(98%)
Know nothing about IUCD	110(37.2%)	186(62.8%)
Characteristics of Implant		
It is very effective	26(8.8%)	270(91.2%)
It is long acting	235(79.4%)	61(20.6%)
No effect on breast feeding	38(12.8%)	258(87.2%)
Insertion and removal require minor surgical procedure	120(40.5%)	176(59.5%)
No interference with sexual intercourse	41(13.9%)	255(86.1%)
Immediately reversible	138(46.6%)	158(53.4%)
Has minimal side effect	46(15.5%)	250(84.5%)
Knowledge level		
Very good knowledge	9(3%)	287(97%)
Good knowledge	234(79%)	62(21%)
Poor knowledge	46(15.5%)	250(84.5%)
Know nothing about Implant	7(2.4%)	289 (97.6%)

*multiple responses

Among the total respondents of the questioner who have knowledge about LAPMs, 62(21%) participants have good knowledge on vasectomy but greater than three fourth, 228(77%) of them do not know anything about vasectomy. Moreover, nearly hundred percent, 291(98.3%) do not know that vasectomy is very effective method. In addition, greater number of participants, 290(98%) do not know that vasectomy needs safe and simple surgical procedure, 287(97%) do not know that vasectomy poses no problem on sexual performance and equal participants do not know that it is fully effective after three months of procedure(surgery). However, about 65(22%) participants know that vasectomy is permanent (irreversible) method, 43 (14%) know that there is no need for repeated clinic visit and 38(12.8%) know that vasectomy has no known long term side effect.

Regarding the knowledge of participants on tubal ligation, about 8(2.7%) and 67(22.6%) participants have very good and good knowledge on female sterilization, respectively, while 221(74.7) of participants with knowledge on LAPMs don't know anything about female sterilization. However, 74(25%) know that tubal ligation is permanent method, 46(15.5%) know that it needs counseling and informed consent before procedure and 43(14.5%) of those with knowledge know that female sterilization needs no repeated clinic visit. Only 2(.7%) participants know that tubal ligation is very effective and 6(2%) participants know that it needs safe and simple procedure and no need for repeated clinic visit too. However, majority, 287(97 %) do not know that it has no effect on sexual performance and sensation, 294(99.3%) do not know that it is very effective, 281(94.9%) do not know that tubal ligation needs safe and simple surgical procedure and 265(89.5%) do not know that it has no known long term side effect(Table -5)

Table -5 .Knowledge on vasectomy & tubal ligation among the respondents, Ambo town, March/April 2010

Characteristics of vasectomy*	Know/Yes №(%) (N=296)	Don't Know /No № (%)
It is very effective	5(1.7%)	291(98.3%)
It is permanent(Irreversible)	65(22%)	231(78%)
Need safe and simple surgical procedure	6(2%)	290(98%)
No supplies to get/no repeated clinic visit	43(14.5%)	253(85.5%)
No problem on sexual performance and sensation	9(3%)	287(97%)
Fully effective after 3 months	9(3%)	287(97%)
No known long term side effect	38(12.8%)	258(87.2%)
Needs counselling and informed consent	30(10.1%)	266(89.9%)
Knowledge level		
Very good knowledge	6(2%)	290(98%)
Good knowledge	62(21%)	234(79%)
Poor knowledge	10(3.4%)	289(96.6%)
Know nothing about vasectomy	228(77%)	68(23%)
Characteristics of tubal ligation		
It is very effective	2(.7%)	294(99.3%)
It is permanent(Irreversible)	74(25%)	222(75%)
Need safe and simple surgical procedure	15(5.1%)	281(94.9%)
No repeated clinic visit	43(14.5%)	253(85.5%)
No problem on sexual performance and sensation	9(3%)	287(97 %)
No known long term side effect	31(10.5%)	265(89.5%)
Requires counselling and informed consent	46(15.5%)	250(84.5%)
Knowledge level		
Very good knowledge	8(2.7%)	288(97.3%)
Good knowledge	67(22.6%)	229(77.4%)
Poor knowledge	13(4.4%)	283(95.6%)
Know nothing about female sterilization	208(70.3%)	88(29.7%)

*multiple response

6.5. Attitude on long acting and permanent methods (LAPMs)

Nearly half of the respondents supported use of long acting and permanent methods of contraceptives. Of the total respondents, 162(31.1%) participants communicate about LAPMs with their husband/friend and 114(70.4%) of those who communicate with their partner /friends support use of LAPMs.

Regarding their partners/husbands attitude, 141(27.2%) of participants said that their friend/husband supported use of LAPMs and 197(38%) of participants explained that their husband/friend are against use of long acting and permanent methods. Moreover, 472(91%) of participants need to know more about LAPMs and of those who wanted to know more, 99(21%) had also tried to know more and 38(7.3%) participants didn't want to know more about LAPMs. Concerning the participant's response to responsibility of using LAPMs, majority, 341(65.7%) answered that it is the couple's responsibility, 42(8.1%) said that it is wife's responsibility and 29(5.6%) answered that it is husband's responsibility.

Five hundred twelve (98.7%) and 509(98.1%) believe that having large family size poses great problem on economy and maternal and child health respectively.

Answers for attitude questions were weighted according to the objective of the study and those participants responded average and above were considered as they had good attitude and those responded less than the average were considered as they had poor attitude.

In general, about 245(47.2%) participants have good attitude towards LAMPs and 274 (52.8%) participants have poor attitude. (Table- 6)

Table 6- Attitude on LAPMs among the study participants, Ambo town, March/April 2010

Variable	Frequency	Percent
Support use of LAPMs	**(N=519)**	
Yes	248	47.9%
No	224	43.1%
Don't concern me	47	9%
Communication with friend/Husband		
Yes	162	31.1%
No	357	68.9%
Friend/Husband attitude on LAPMs		
Support	141	27.2%
Against	197	38%
Neutral	17	3.3%
I don't know'	164	31.6%
Need to know more on LAPMs		
Yes	472	91%
No	38	7.3%
No idea	9	1.7%
Tried to know more on LAPMs		
Yes	102	19.7%
No	405	78%
No idea	12	2.3%
Responsibility in using LAPMs		
Wife	42	8.1%
Husband	29	5.6%
Both	341	65%
others	107	20.5%
Large family has problem on economy		
Yes	512	98.7%
No	7	1.3%
Large family has problem on MCH		
Yes	509	98.1%
No	10	1.9%
Attitude on LAPMs (composite measure)		
Good attitude	245	47.2%
Poor attitude	274	52.8%

6.6. LAPMs use and reasons for nonuse

Of the total respondents, only 29(9.8%) used long acting and permanent contraceptives (IUCD and Implant) once in their life and the rest 267(90.2%) did not practice any of the LAPMs. Furthermore, 28(96.6%) of ever users got the service from government health institutions. Concerning the reasons for not practicing LAPMs before: 137(51.3%) did not

know it, 28(10.4%), 131(49.1%) and 119(44.6%) respectively reported service is unavailable, fear of infertility and fear of side effects. Moreover, 109 (40.8%) participants did not use since they want to be pregnant, 89(33.3%) due to medical problem, 47(17.6%) because of husband disapproval and 26(9.7%) were not using for different reasons. (Table -7)

Table 7- LAPMs use and reasons for not use among the study population, Ambo town, March/April 2010

Variable	Frequency	Percent
Have you ever used LAPMs	**(N=296)**	
Yes	29	9.8%
No	267	90.2%
Where did you get the service?	**(N=29)**	
Gov. Health institution	28	96.6%
Private	1	3.4%
Reasons for not practicing LAPMs *	**(N=267)**	
Fear of side effect	119	44.6%
Medical problem	89	33.3%
Fear of infertility	131	49.1%
Partner disapproves	47	17.6%
To get pregnant	109	40.8%
Lack of knowledge	137	51.3%
Service unavailable	28	10.4%
others	26	9.7%

Multiple responses

6.7. Intention to use and reasons for no intention

Two hundred ninety-one (56.1%) participants had an intention while the rest 228(43.9%) participants had not to use long acting and permanent contraceptive methods in the future.

Of those who had an intention to use LAPMs, 210(72.2%) intended to use implant followed by IUCD 57(19.6%) and tubal ligation 23(7.9%). Reasons for not intending to use LAPMs were: 115(50.2%) due to fear of infertility, 116(50.9%) wanted to be pregnant, 101(44.3%) and 91(39.9%) due to lack of knowledge and medical problem respectively. In addition to these, there were other reasons and perceptions towards intention to use LAPMs. Some of the

reasons were age getting old; having satisfaction with the method they are using and sexually inactive. (Table-8)

Table 8- Intention to use and reasons for not intending to use.

Variable	Frequency	Percent
Do you want to use LAPMs?	**(N=519)**	
Yes	291	56.1%
No	228	43.9%
Types of LAPMs planned to use	**(N=291)**	
IUCD	57	19.6%
Implant	210	72.2%
Vasectomy	1	0.3%
Tubal ligation	23	7.9%
Reason for not intending to use LAPMs *	**(N=228)**	
Fear of side effect	82	35.8%
Medical problem	91	39.9%
Fear of infertility	115	50.2%
Partner disapproves	44	19.2%
To get pregnant	116	50.4%
Lack of knowledge	101	44.3%
Service unavailable	17	7.5%
others	29	12.7%

***multiple response

6.8 .Factors affecting intention to use LAPMs

Selected socio demographic and reproductive health and other factors such as:-age, sex, education level, occupation, religion, family size, age at marriage, total children available, total children wanted to have, knowledge on LAPMs and attitude on LAPMs were tested using binary logistic regression for the presence of association with intention to use LAPMs. As a result, Variables like respondent's age, educational status of women, knowledge on LAPMs, composite measure of attitude on LAPMs, occupation of respondent, total number of alive children, ever use of LAPMs and history of abortion were found to be significantly associated with intention to use LAPMs.(Table-9)

Table 9- Factors affecting intention to use among the study population, Ambo March/April, 2010

Variable	Intention to use LAPMs		COR(95%CI)
	Yes	No	
Age (years)			
<20	12	24	**.25(.11-.56)**
20-34	216	173	**.61(.38-.99)**
≥35	63	31	1
Marital status			
Married	259	195	1.39(.74-2.60)
others	11	11	1.05(.38-2.93)
single	21	22	1
Religion			
Muslim	17	23	.58(.29-1.12)
Protestant	88	58	1.18(.79-1.76)
others	9	9	.78(.30-2.01)
Orthodox	177	138	1
Educational status			
Read & write only	25	31	.76(.40-1.42)
1-6	64	28	**2.15(1.23-3.77)**
7-8	44	41	1.01(.58-1.74)
9-12	68	50	1.28(.77-2.11)
College & above	23	15	1.44(.69-3.01)
Illiterate	67	63	1
Occupation			
Merchant	60	36	**2.44(1.29-4.59)**
GO/NGO employee	30	17	**2.58(1.20-5.55)**
House wife	143	115	**1.82(1.06-3.12)**
Others	30	19	**2.31(1.09-4.89)**
Student	28	41	1
Family size			
≥4	204	148	1.23(.85-1.79)
<4	86	77	1
Age at marriage(years)			
18-24	199	153	.90(.58-1.39)
>24	6	8	.52(.17-1.59)
<18	65	45	1
Total alive children			
3-4	99	66	1.41(.94-2.12)
≥5	44	21	**1.97(1.09-3.52)**
1-2	115	108	1
History of abortion			
No	254	180	**1.83(1.15-2.93)**
Yes	37	48	1
Total children wanted			
3-4	149	122	1.04(.69-1.54)
1-2	85	72	1
≥5	57	34	1.42(.84-2.41)
Knowledge on LAPMs			

Yes	184	112	**1.78(1.25-2.53)**
No	107	116	1
Attitude(composite)			
Good attitude	199	46	**8.56(5.69-12.86)**
Poor attitude	92	182	1
Ever used LAPMs			
Yes	27	2	**11.55(2.72-49.12)**
No	264	226	1

Variables which were significantly associated with intention to use LAPMs on a binary logistic regression analysis were further analyzed using multiple logistic regression initially and repeated again by removing those variables that lost their significance on the first multiple logistic regression. As a result, attitude on long acting and permanent contraceptive methods was found to be an important predictor of intention to use LAPMs. (AOR, 8.82, 95% CI (5.58 - 13.94)). Those with good attitude on LAPMs were about 9 times intended to use LAPMs than those with poor attitude on LAPMs.

Moreover, knowledgeable women on LAPMs had 2.6 times intention to use LAPMs than those without knowledge (AOR, 2.62 95% CI (1.30-3.24)). Taking those women with 1-2 alive children as a reference category, those with 3-4 alive children had 1.7 times intention(AOR,1.74 95% CI(1.08-2.81)) and who had 5 or more alive children were 2.8 times intended to use LAPMs(AOR, 2.78 95% CI(1.38-5.59)). (Table-10)

Table 10-predictors of intention to use LAPMs, Ambo town, March/April 2010

Variable	Intention to use LAPMs		COR(95%CI)	AOA(95%CI)
	Yes(№)	No(№)		
Age(years)				
<20	94	78	**2.41(1.13-5.13)**	.92(0.18-4.54)
20-34	63	41	**3.07(1.39-6.82)**	.69(.13-3.69
≥35	39	25	**3.12(1.33-7.34)**	.92(.16-5.20)
Educational status				
Read & write only	25	31	.76(.40-1.42)	.77(.36-1.65)
1-6	64	28	**2.15(1.23-3.77)**	1.62(.79-3.33)
7-8	44	41	1.01(.58-1.74)	.79(.38-1.64)
9-12	68	50	1.28(.77-2.11)	1.03(.5-2.13)
College &above	23	15	1.44(.69-3.01)	1.01(.28-3.63)
Illiterate	67	63	1	1
Occupation				
Merchant	60	36	**2.44(1.29-4.59)**	2.92(.80-10.61)
GO/NGO employee	30	17	**2.58(1.20-5.55)**	2.13(.57-8.02)
Housewife	143	115	**1.82(1.06-3.12)**	2.16(.65-7.16)
Others	8	23	**2.31(1.09-4.89)**	3.92(.98-15.67)
Student	28	41	1	1
Total alive children				
3-4	99	66	1.41(.94-2.12)	**1.74(1.08-2.81)**
≥5	44	21	**1.97(1.09-3.52)**	**2.78(1.38-5.59)**
1-2	115	108	1	1
Knowledge on LAPMs				
Yes	184	112	**1.78(1.25-2.53)**	**2.62(1.30-3.24)**
No	107	116	1	1
History of abortion				
No	254	180	**1.83(1.15-2.93)**	1.46(.79-2.70)
Yes	37	48	1	1
Attitude (Composite)				
Good attitude	199	46	**8.56(5.69-12.86)**	**8.82(5.58-13.94)**
Poor attitude	92	182	1	1

6.9. Qualitative Result

A total of 22 women (clients of other modern contraceptive) participated in 2 FGDs, one group containing 12 discussants and the second 10. The FGD sessions were conducted separately for health center and MCH clinic. Before conducting the FGD, about 12 semi structured FGD guides were developed to ensure subject areas covered systematically and uniformity. While conducting FGDs, the objective of the FGDs was discussed with the participants and their participation was voluntarily. The FGDs took from1-1:30 hours and all were audio taped in addition to notes. The data collected were transcribed to Afan Oromo on daily basis and translated to English for further processing.

General Knowledge of Contraceptive

As an entry point, participants' knowledge regarding contraceptives in general was raised. Significant number of participants expressed that most of them and the community have knowledge concerning contraceptives and the majority are practicing family planning methods. Majority of discussants rose that it is mandatory for the community member to use contraceptive to overcome the current economic hardship. Even though there is a good level of knowledge of contraceptives in the town, there is less knowledge of contraceptive among the community especially those residing in the rural part. One of the participants (35, orthodox,), while expressing her brother's wife experience said:

"...There was my brother's wife living in rural area.
Once I visited her, she has five children in seven years
of their marriage and I asked her why she didn't space her birth,
she answered by saying: - I have no idea about contraception except
the information my friend told me last time. After I counseled her,
she regretted for having this number of children and agree to visit
health post and started using contraceptives...''.

Knowledge on LAPMs

Majority of the participants express that there is low level of knowledge and use of LAPMs in the area especially the community didn't know about permanent ones (vasectomy and tubal ligation). One of the discussants, (25, protestant) expressed her views saying:

"…...I have knowledge on implant and IUCD and some information about vasectomy and tubal ligation. On top of that I used IUCD for five years and remove it to have another child before four years. Those who live in town and receive contraceptives from public health facilities may have some knowledge about LAPMS but I don't think those residing in the rural and those who didn't have clinic visit had as much knowledge on LAPMs especially permanent ones…''.

Among LAPMs known by the discussants, implant was mentioned by the majority and also there was good level use of implants in the community. Furthermore, most discussants said that there is almost no knowledge of vasectomy and tubal ligation in the community. In addition, some participants explained that there are misconceptions and complaints among users of implants. One of the participants, 38, orthodox) expressed her views as,

"….There was my neighbor who had an implant before a year and when she told me her experience, she didn't pick heavy materials, there is menstrual disturbance , dizziness and headache, and because she can't work hard duties she is in conflict with her husband. currently because of all these side effects, she planned to remove and change the method to Depo-Provera, so this experience (complaint) prevent me from switch to LAPMs…..''.

Attitude on LAPMs

Most of the discussants had positive attitude towards using LAPMs in the future and belief that using these contraceptives have many advantages but they raised that there is poor attitude towards LAPM in the community. Using long acting and permanent contraceptive methods have advantageous than other methods. LAPMs are used both for spacing birth and limiting the number of children if someone achieved the number of children want to have.

(18, Muslim, single) expressed her views,

"….I hear about LAPMs right now after we start discussion. It is better than short acting like pill and depo especially for those like me who are single and hide from their family that they are using contraceptive or undergone sexual intercourse before marriage. Many young girls afraid of their families to swallow pill and suffer from abortion complication. I remember one of my classmate afraid of her mother to take pills and suffer a lot with abortion. But if she insert implant or IUCD once, there may not be like problems. I think it is Better, if there is health education in school and in the community to alleviate these problems…..'' .

(22, Orthodox), discussant while expressing community's perception said:

"*…there is poor (negative) attitude towards LAPMs in the community, the community beliefs as all LAPMs are for limiting and as the side effects are major . I remember that a woman in our village told me about permanent methods, that it is like castration for animals…''.*

Almost all discussants want to know more about LAPMs to use the methods in the future and they emphasized that there is also a great demand of health education concerning LAPMS in the community because the community has information about LAPMs but not knowledge.

Intention to use, preference and factors affecting intention to use

Majority of the participants intend to use LAPMs in the future in general and implant was the major method planned to use in the future followed by IUCD. The discussants raised different reasons for the selection of implants. One participant (22, protestant) expresses her views by saying:-

"…. I prefer implant to use in the future than others because now I have two children if I used tubal ligation and there may be change in my economic situation I may want to have

child during that time I may regret, to avoid this regret I choose implant which is reversible….''.

There were many factors why the community did not intend to use long acting and permanent contraceptive methods in the future. The primary reasons were lack of knowledge on the methods, poor counseling by health workers and poor attitude towards LAPMs in the community. There were rumors and misconceptions about LAPMs as it is not for spacing. One participant (26, Muslim) expressed her views in this regard as,

"…when I was in Addis I heard about long acting and permanent methods from health center and also from my colleagues but when I came here the nurse working in the family planning clinic asked me which method do you want pills or Depo-Provera? I responded depo because it is used by majority of women. If she counseled me about LAPMs I might prefer one of them….''.

Comparison of LAPMs with other FP methods

Most of the participants agree on that long acting and permanent contraceptives are better than short acting like pills and injectables. Once a woman inserts implant or IUCD, there is no need of visiting health center or clinic, not expected to worry about the timing of taking method and becoming pregnant and no cost for transportation. Some of the discussants also raised, even though the advantages are many most of the communities have no knowledge on LAPMS. One participant (40, orthodox) expressed her views as,

"…. I want to have 6- children and achieved the number of children I want to have before 5-years, till now I used Depo-Provera for the last 5 -years, if I have had information on LAPMs, I will use long acting and permanent methods .I regret for the past, but right now I want to use LAPMs for the rest of my life….''.

Ways to improve knowledge, attitude and intention to use LAPMs

Majority of the participants agree on that education (health education) targeting all the community is mandatory to improve the knowledge, attitude and intention to use LAPMs. Health workers (contraceptive providers) at health facility should inform all clients that there are different choices including LAPMs, because there are mothers who want to limit their family size but didn't know the method. (20, orthodox) expressed her views as,

"…before years when Depo-Provera arrived there was poor attitude, misconception and rumors about it but after extensive health education through time, the knowledge become increase among the community and everybody start to use Depo-Provera so this experience will be practiced to LAPMs''.

Furthermore, some discussants have suggested that health professionals working on family planning service should give due emphasis in counselling of LAPMs since most of clients, even those using other modern contraceptives, rarely heard about LAPMs in health facilities (27, Muslim) expressed her views by saying:-

"….To increase the knowledge and uptake of long acting and permanent contraceptive methods among the community, health workers providing contraceptives should take the major responsibility ….''.

7. Discussion

The study has assessed the proportion of women who had intention to use LAPMs and the factors affecting intention to use LAPMs in Ambo town. Moreover, it has assessed the knowledge and attitudes on LAPMs in the study area.

The proportion of respondents with knowledge on specific LAPMs was, 35.8%, 55.7% and 15% for IUCD, Implant and vasectomy respectively which was relatively greater than that of EDHS 2005 findings which were 22.4% for Implant, 14.8% for IUCD, and 6.6% for vasectomy and lower than other study in Tehuledre, south Wollo, (Amhara) and India.
Above 90% of respondents had Knowledge on all modern contraceptive methods in Ethiopia and 67% and 75% on vasectomy and tubal ligation respectively in India.(5, 14, 17, 23).
This difference might be due to the recent provision of training and expansion of services by government and NGOs working in the area and may be due to the recent research being in health facility (among clients of other modern contraceptive). Furthermore, the study in Tehuledre, south Wollo, Amhara Region was among clients of long acting and permanent methods of contraceptives and the fact that long acting and permanent methods are more popular in Asia than short acting methods. This result is also higher than the result of study in Butajira, SNNPR where 20.5%, 5.8% and 8% had knowledge on implant, IUCD and female sterilization respectively(23). This difference may be due to the current survey being at health facilities among clients of other contraceptive methods. However this difference may need further investigation.

Among respondents with knowledge on LAPMs, those who had very good knowledge were 2.4%, 3%, 2% and 2.7% for IUCD, Implant, Vasectomy and tubal ligation respectively which was slightly less than other study in Butajira, SNNPR where 7%, 10.6%, 1.3% and 7.5% had very good knowledge on IUCD, Implant, vasectomy and tubal ligation respectively. This difference may need further investigation. The result of this study also was comparable with other studies in the big regions of Ethiopia, where 10%, 9.8%, 9.4% and 6% of the participants had knowledge on implant, female sterilization, IUCD and vasectomy respectively.(18, 23)

Generally knowledge on long acting and permanent contraceptive methods was high which was consistent with other similar studies. In contrary, the result of quantitative study were not consistent with the views of most focused group discussants which were the knowledge of LAPMs is very low in the community. This could be due to no health education targeting the whole community rather limited to facility level. This might be the reason why most people didn't use and intend to use long acting and permanent methods of contraception. Moreover those with knowledge on LAPMs were married and with some education, which was consistent with many other studies (5, 15, 17) .

Majority of the focus group discussants suggested that optimum family size should be a maximum of four, which was comparable with other studies conducted in big regions of Ethiopia and Jinka town, SNNPR(15, 18). However, it is inconsistent with EDHS 2005 finding where three out of five women preferred an ideal family size of four or more children. This difference may be due to that study subjects of EDHS 2005 included both urban and rural community and use relatively large sample size while the study subjects of the current study were selected only from health facilities with small sample size (5)

Many factors were raised to be affecting the acceptance and use of long acting and permanent contraceptive methods in the town by FGD discussants. Among these, the main once were rumors and misconceptions towards LAPMs and insufficient attention to the methods during counseling sessions by service providers as it is also reported in other studies.(13, 15)

More than half participants had intention to use LAPMs in the future which was consistent with a study in Bure, west Gojam, where among users of a method due to unavailability of their method of choice,57.9% had preference to LAPMs. Furthermore, in the same study it was found that among those who have unintended pregnancy due to lack of their preferred method about 43.1% had preference for LAPMs (20).

The current study revealed that about 57% of married and 48.8% of singles had intention to use LAPMs in the future, which was inconsistent with the result of study conducted in Jinka town, SNNPR where 81.5% of single and 64% of married had intention to use LAPMs in the future(15). Currently married women may have children and having children may increase the likelihood of intention to use LAPMs.

The result of this study was lower than a study conducted in Jinka and Butajira towns, SNNPR, where among the respondents of the survey 62.6% and 65.8% of the participants respectively have intention to use LAPMs in the future after getting further information on it (15, 23). This difference might be due to the fact that the current studies being among clients of other modern contraceptive methods rather than LAPMS while the study in jinka and Butajira was among all contraceptive users and contraceptive non users(in the community). Moreover it is in line with EDHS 2005 finding where more than half (52 percent) of currently married women who were not using any contraception at the time of the survey say that they intend to use a family planning method sometime in the future(5)

In the present study, the proportion of women who intend to use LAPMs in the future varied by the number of living children which was in line with EDHS where the proportion increases from 44 percent for those with no living children to a peak at 60 percent among those with one child. From respondents who want to use LAPMs in the future,40.5%,10.98% and 4.4% were intended to use Implant, IUCD and tubal ligation respectively which was greater than the findings of EDHS where 0.2%,0.3% and 1.7% intend to use female sterilization, IUCD and Implants respectively(5). This difference may be due to the fact that this surveys being at health facilities among clients of other modern contraceptives who have information about LAPMs and the long duration between EDHS and the current study. There is also high intention to use long acting and permanent contraceptive methods in the future as suggested by focused group discussants. Implant was intended to use by the majority as raised by FGD participants which was consistent with the result of quantitative

Less than half,(43.9%) participants were not intending to use long acting and permanent contraceptive methods and the main reasons for not intending to use LAPMs were to get pregnant, fear of infertility, lack of knowledge and medical problem which was consistent with a report of Calverton, Maryland: ORC Macro: 2002 where the main reasons for not intending to use contraceptives in the future are desire for more children, husband/ partner or others opposion to use and lack of knowledge of a method or source of method. This is also in line with EDHS 2005 where the reasons for not intending to use contraceptive in the future were desire to have children, have no knowledge on the method and medical problems and also comparable with study in Gondar, where large proportion of women mentioned desire to have children as a reason for not intending to use contraceptive in the future. (5, 16, 19)

In general most participants had positive attitude towards using long acting and permanent contraceptive in the future as raised by FGD participants, which was in line with the finding of a study conducted in Dembia district (Gondar, Ethiopia) on contraceptive prevalence, where 72% of females and 70% of males had positive attitude towards future use of contraceptives.(16)

8. Strengths and Limitation of the Study

Strengths of the Study

- Data collectors were trained and supervised by supervisor and principal investigator. In addition, regular check-up for completeness and consistency of data was made on daily bases.

- Both quantitative and qualitative methods of data collection were used and there were no non responses.

Limitations of the study

- Mothers whose age is less than 18 years were not included in the study because of difficulties to get informed consent. Thus the study cannot be generalized to those mothers below 18 years of age.

- The perspectives /views of male clients, service providers, NGOs working with LAPMs in the locality and those working at the health offices were not included.

- Since the design is cross sectional temporal relations could not be assessed.

- Lack of adequate literatures in Ethiopian situation, which prevents further elaboration of the discussion.

9. Conclusion

The overall magnitude of intention to use long acting and permanent contraceptive methods in the future was 56.1% in the study area. The knowledge of LAPMs was relatively high (57%) in the study area in the context of Ethiopia. There are rumours and misconceptions towards long acting and permanent contraceptive methods in the community as raised by most of focus group discussants. In general there was poor attitude towards using long acting and permanent methods in the study area. Different factors (knowledge on LAPMs, total number of alive children a woman had and attitude on LAPMs) were identified to be independent predictors of intention to use long acting and permanent contraceptive methods in the study area.

The study also revealed different reasons for not intending to use long acting and permanent contraceptive methods in the future such as want to have children, fear of infertility, lack of knowledge on the method and medical problems.

10. Recommendations

Based on the findings of this study, the following recommendations were given to the responsible bodies:-

Policy level

- Federal MOH and regional health bureau should work on LAPMs and attract NGOs since there is a need to use LAPMs by most people in the future in the study area.

Program level

- Even though the knowledge of LAPMs is relatively high at health institutions, there is low level of knowledge in the community as raised by FGD participants. Ambo woreda health office in collaboration with zonal health departments should maintain continuous education on LAPMs that targeting all community rather than health educations delivered at health facilities only for those who have clinic visit only. To address these issue health extension workers at kebele level should use community conversation strategy.
- The woreda health office and NGos working on family planning in the area should work with community elder, Idirs, other influential persons and women's association in the town to decrease the rumours and misconceptions about long acting and permanent methods of contraception. Since there is poor attitude towards LAPMs in the community. Moreover it is better if those benefited from LAPMs educate others to advocate the service.
- West shoa health department and Ambo woreda health office should focus on the reasons forwarded for not intending to use LAPMs in the future during program design for family planning.
- IEC activities focused on tackling the misconception and rumours about LAMPs should be planned and implemented by concerned bodies on LAPMs in the area.

Facility level (to health service providers)

- Health service providers (contraceptive providers) should counsel the clients on all methods appropriately since focused group discussants raised that there is poor counselling on LAPMs at health facilities to family planning clients and also lack of knowledge was one of the major reason for not intending to use LAPMs.

Research

- Detailed and large study which incorporate theories and considers perspectives of NGOs, service providers and health service manager's views on similar issues should be conducted.

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12. Appendixes

Annex 1 -English version informed consent sheet

I. Study Information sheet

Good morning /afternoon, my name is_____ and I am a midwife/nurse in profession. I am also a part of a team carrying out study on factors affecting intention to use long acting and permanent contraceptive methods among family planning clients of public health facilities in the town. Currently, we are conducting a study on factors affecting women's intention to use long acting and permanent contraceptive methods and the magnitude of intention to use these methods among clients of other modern methods in Ambo town. The purpose of this study is to identify possible factors influencing the intention of women's to use long acting and permanent contraceptive methods among clients of other modern contraceptive methods. We believe that the study findings will help program planner in family planning in order to improve utilization of these methods. If you participate in the study, it will not take us more than 15 minutes. Your name will not be written on this form, thus the information you provide will not be known to others. There is no risk involved in participating in the study. Your participation is purely voluntary, and you can withdraw any time after you get involved in the study without compromising the services you ought to get from the hospital/health center. However, we hope that you will participate in this study since your views are important.

Do you have any questions?

If you have any question you can contact the principal investigator at any time convenient for you using the following address:

Name of principal Investigator-	Dashe Negewo Ayana
Address-	Addis Ababa, Ethiopia
	Phone number 0911710613
	E-mail negewod@yahoo.com
Name of institution -	Addis Ababa University, medical faculty IRB
Address	Addis Ababa, Ethiopia
Tel.№	251-011-5538734
E-mail	aaumfirb@yahoo.com

II. Consent form

I, the selected participant, heard the information in the consent sheet and understood what is required from me and what will happen to me if I take part in the study. I understand that all the information regarding me, like name and all answers given by me must not be transferred to the third party. I can also understand that I can withdraw from the study at any time without giving a reason and without me or my families' routine service utilization being affected for my refusal.

Now please tell me if you agree to participate in the interview.

The Participant:

1. Agreed ☐
2. Did not agree ☐ → End the interview and thank the respondent.

Interviewer Agreement

I certify that I have taken written consent from the respondent that she has agreed to participate in study and I have confirmed the agreement is correct.

Interviewer

Name: _____ Signature_____

|_____|_____| 2010.

Date month

Supervisor

Name: _____ Signature_____

|_____|_____| 2010.

Date month

Annex 2- structured questionnaires

- For multiple choice questions circle the possible answer(s)

A. Identification

No	Questions	Response	Skip to
01	Questionnaire No.	_____	
02	Name of data collector	_____	
03	Date of interview(in Ethiopian calendar)	[____/____/2002] Date, month,	
04	Supervisor Name	_____	
05	Result	Complete response =1 Incomplete response =2	

B. Socio-demographic and economic characteristics

No	Questions	Response	Skip to
001	What is your age (in completed years)?	_____	
002	Marital status of participant	1.Single 4.Widowed 2.Married 5.Separeted 3.Divorced	
003	Family size of respondent in number?	_____	
004	What is your religion?	1.Orthodox 4.Catholic 2.Muslim 5.Others,specify---------- 3.Protestant	
005	What is your ethnicity?	1.Oromo 2.Amara 3.Tigire 4.Gurage 5. Others/specify----------	

006	Educational status?	1.Illitrate(can't read or write) 2.Read and write 3.Formal education(1-12) 1-6 ---------- 7-8 --------- 9-12 --------- 4.College and above	
007	Occupation of respondent?	1.Student 3.Government/NGO employee 2. Trader 4. Housewife 5.Day laborer 6.others,specify----------	
008	Total monthly income of Family or household?	Enter the No. in birr_____	
009	Do you have any of the following? -Radio -Television -Electricity	 1.Yes 2.No 1.Yes 2.No 1.Yes 2.No	

C. Reproductive Health History

No	Questions	Response	Skip to
010	What was your age at time of marriage?	_____	
011	How many live children do you have?	Total----------M---------F----------	
012	Do you have history of abortions?	1. Yes 2.No (if No, skip to 014)	014
013	How many abortions do you have?	1.1 3.3 and above 2.2	
014	How many children you want to have?	Enter no----------	
015	Who decide on the no of children you want to have?	1. Husband 3. Both 2. Wife 4. Others, specify----------	

D. Knowledge of LAPMs

No	Questions	Response	Skip to
016	Do you know about LAPMs (methods used for many years or permanently just after having it once)	1.Yes 2. No (if answer is no go to Q No. 024)	024
017	If yes to Q 015 what general uses of LAPMs do you know? (Tick all mentioned)	1.Helps for prevention of unwanted pregnancies 2. Prevention of possible maternal and child death and ill health. 3. Limiting family size 4. Child spacing 5. Others----------	
018	If yes to Q 016 which method of LAPMs do you know? (circle all mentioned by the respondent)	1. IUCD 2. Implant 3. Vasectomy 4. Tubal Legation 5. other	
019	What is your source of information?(circle all mentioned by the respondent)	1.Health institutions 2.Family 3.Friend 4.Mass media(TV, Radio, etc) 5.NGO 6.others----------	
020	What do you know about IUCD? (circle all mentioned by the respondent)	1.It is very effective 2.It is long term(used usually for more than ten years) 3.No effect on breast feeding 4.Not good for female at high risk of getting STIs 5.No interference with sexual intercourse 6.Immediatly reversible(becoming pregnant quickly when removed) 7.Has minimal side effect 8. I don't know 9.Others,specify----------	

021	What do you know about Implant? (circle all mentioned by the respondent)	1.It is very effective 2.It is long term(used for up to five years) 3.No effect on breast feeding 4.Insertion and removal require minor surgical procedure 5.No interference with sex 6.Immediatly reversible(becoming pregnant quickly when removed) 7.Has minimal side effect 8.i don't know 9.Others,specify----------	
022	What do you know about Vasectomy?(circle all mentioned by the respondent)	1.It is very effective 2.It is permanent(Irreversible) 3.Require Safe and simple procedure 4.Don't need repeated clinic visit 5 .No effect on sexual performance and sensation 6. Fully effective after 3-months 7.No known long term side effects 8.Requiers counseling and informed consent 9. I don't know 10.others,specify	
023	What do you know about female sterilization?(circle all mentioned by the respondent)	1.It is very effective 2.It is permanent(Irreversible) 3.Safe and simple procedure 4. Don't require repeated clinic visit 5.No effect on sexual performance and sensation 6.No known long term side effect) 7.Requiers counseling and informed consent	

		8. I don't know 9.Others,specify	

E. Attitude towards LAPMs

No	Questions	Response	Skip to
024	Do you discuss about LAPMs contraceptive methods with your husband or friend?	1. Yes 2. No 3. Don't concern me	
025	Do You support using LAPMs contraceptive?	1. Yes 3. No idea 2. No 4. Do not concern me	
026	Is it good to use LAPMs for contraception?	1. Yes 3. No idea 2. No 4. Do not concern me	
027	What is your partner's attitude towards using LAPMs?	1. Supporting 4. Don't know 2. Against 5.Not applicable 3. Neutral 6. Any other idea, explain----------	
028	Do you want to know more about LAPMs?	1. Yes 3. No response 2. No 4. Do not concern me	
029	Do you try to know more about LAPMs?	1. Yes 3. No response 2. No 4. Do not concern me	
030	Who is responsible to practice contraception, including LAPMs?	1. Wife 4. I don't know 2. Husband 5. Do not concern me 3. Both 6.Others,explain----------	
031	Does large family size negatively affect economic condition?	1. Yes 3. No response 2. NO 4. I don't know	
032	Does large family size affect the health condition of mothers and children?	1. Yes 3. No response 2. No 4. I don't know	

F. Intention to use LAPMs

No	Questions	Response	Skip to

033	Have you ever used LAPMs contraceptive methods? (For those who have knowledge)	1. Yes 2. No (if answer is No, skip to 038)	038
034	If yes to Q No. 033 when did You start?	Enter the starting age…….	
035	If yes to Q No 033 how long did you use it?	_____	
036	If yes to Q No. 033 where did you get the service?	1. Government Health institution 2. NGO 3. Private 4. Others, specify----------	
037	If you change the method what is\could be the reason?(only for IUCD and implant users)	1. Fear of side effect 5. To get pregnant 2. Medical problem 6. It is sinful 3. Fear of infertility 7. Cultural taboo 4. Partner disapproves 8. Others	
038	If you don't practice any of LAPMs what is / are the reason?	1. Fear of side effect 5. To get pregnant 2. Medical problem 6. It is sinful 3. Fear of infertility 7. Cultural taboo 4. Partner disapproves 8. Lack of knowledge 10. I am single 9. Service unavailable 11. Others, specify----------	
039	Do you want to use LAPMs in the future?	1.Yes (if answer is yes skip to 041) 2. No 3. Am not sure	041
040	If you have no plan what could be the reason?	1. Fear of side effect 5. To get pregnant 2. Medical problem 6. It is sinful 3. Fear of infertility 7. Cultural taboo 4. Partner disapproves 8. Lack of knowledge 10. I am single 9. Service unavailable 11. Others, specify----------	
O41	If Yes to Q № 039 which method?	1.IUCD 3.tubal ligation 2.Implants 4 .vasectomy 5.if others specify----------	

Do you have any additional idea, opinion and/or further elaboration on issue/issues in our survey? Finally I would like to express my heartfelt thank for your voluntary participation in this study**.**

FGD discussion guide

Greeting!

Hello, participants. Wishing it would help in improving FP service in the future in your locality we would have this FGD. We hoped that the discussion we would having with you is very much useful to strength quality, availability and access to contraceptive in general and to long acting (IUCD, Implants) and permanent(voluntary sterilization) contraception in particular. In doing this discussion, I will raise some questions concerning long acting and permanent contraceptive knowledge, attitude, intention to use and influencing (affecting) factors of intention to use. Before entering to the FGD I wish to forward my bottomless appreciation for all the voluntary participation.

Discussion topics

1. How does the community understand about contraception? How about your understanding concerning contraceptives?
2. What do you / the community knows about long acting (IUCD, Implant) and Permanent (voluntary sterilization) contraception?
3. Why don't you/ the community use long acting (IUCD, Implant) and permanent (voluntary sterilization) contraception?
4. What are the advantages/disadvantages of long acting (IUCD, Implant) and Permanent (voluntary sterilization) contraception over others?
5. Do you want to know more about long acting (IUCD, Implant) and Permanent (Voluntary sterilization) contraception? What could be the reason?
6. What is the knowledge of the community regarding long acting (IUCD, Implant) and permanent (voluntary sterilization) contraception?
7. When should people start to use long acting (IUCD, Implant) and permanent (voluntary sterilization) contraception, and who should use long acting and permanent contraception?
8. What is the optimum family size you think enough? Why?
9. Is having large family size useful or harmful?
10. Who should decide about family size? Why?
11. Do the community/you want to use LAPMs in the future? Which method (IUCD, Implant, and Voluntary sterilization) do you prefer to use?

12. What is your attitude and communities perception concerning the use of LAPMs in this community? Is there any additional idea that you want to add on our discussion on LAPMs and related issues?

Finally I would like to express my heartfelt thank for your voluntary participation in this focus group discussions.

Annex-3 Afan Oromo Informed Consent sheet

I. Odeefanno wa’ee qo’anno

Akkam bultan/ooltan,maqaan koo----------ogumman koos narsii deesiftuu/waliigalaati.Ani qaama garee qo’anno gufuu ittifayadama mala karoora maati wagga dheerafi fayyadanii fi baqaqsanii maseensan irrat maamiltoota karoora maatti dhaabbata fayyaa mootumma magaala Amboo keessati gageesuuti .Yeroo amma kana gareen kun qo’anno wantoota ittifayyadama mala karoora maatii wagga dheeraf fayyadanii fi baqaqsanii maseensuu dudubatti hanbisan fi fedhii ittifayyadama isaani maamiltooni karoora maati kan biraa qaban irrati gageessa. Faayidan qo’anno kanas ittifayyadama maloota karoora maatii arman olitti caqasaman warrota dudubatti hanbisan addan baasuu fi sagantesitoota karoora maatii gargaaruu nidanda’a.

Qo’anno keesatti qooda fudhachuuf yoo fedhii qabaatani daqiiqa 15 ol nutti hinfudhatu. Maqaan keesan waan hinbareefamineef deebiin isin kennitan icitiin isaa eegamadha akkasumas qo’anno irrati hirmaachuu keesaniif miidhan isiinira ga’hu tokkolee hinjiru.Hirmaannan keessan guutumma guututti fedhii irratti waan hunda’eef, erga hirmaachuu jalqabdanii tajaajila Hospitaalicha/Buufaticha irra argachuu qabddan irrati miidha tokko malee addan kutuun mirga keesani. Waanumafedhefiyyu ilaalchii keesan garii waan ta’eef nihirmaatu jenee niabddanna.

Gaaffi kamiyyu yoo qabaatan teesso harman gadiitin yeroo barbaadanitti qo’aticha argachuu nidandeesu:-

Maqaa qo’ataa-	Daashee Nagawoo Ayyanaa
Teesso-	Finfinnee, Itoopiyaa
	Lakk.bil. 0911710613
	E-mail negewod@yahoo.com
Maqaa dhaabata	Yunivarsiiti Finfinnee,
Teesso	Finfinnee, Itoopiyaa
Lakk.bil.	251-011-5538734
E-mail	aaumfirb@yahoo.com

II. Waliigaltee jecha icitii eeguu

Ani hirmaatan qo'anno kana wa'ee odeeffanno qo'annicha jecha arman olii irraa hubadheera. Akkasumas maaltuu akka narra eegamuu fi yoon qo'annichaa keessatti qooda fudhadhe maaltuu akka narra ga'hu danda'uu hubadheera.Odeefanno wa'ee koo akka maqaa koo fi deebbii anni kennu hundi qaama sadaffatti dabarsanii himuun dirqama akka hintaane akkasumas halduree tokko malee deebbii yeroon barbaadeti addan kutuun mirgakoo ta'uu isaa hubadheera.

Fedhii hirmaanna keesan naafi ibsaa

Hirmaata:-

1. Nanhirmaadha ☐
2. Hinhirmaadhu ☐ → Galatoomfadhutti kan biraati darbi .

Waliigaltee gaafii gaafata

Ani gaafatan gaafii kana, hirmaatuu (deebii deebiftuu) qo'anno wajiin waliigaltee jeecha icitii eguu barrefaman waliigaluu ishee fi qo'anno irrati fedhidhan hirmaachuu ishee ninmirkaneessa.

Gaafii gaafata

Maqaa: _____ Mallatoo_____

|_____|_____| 2002.

Guyyaa Ji'a

To'ataa

Maqaa:: _____ Mallatoo_____

|_____|_____| 2002.

Guyyaa Ji'a

Annex 4- Afaan Oromo Questionnaire

Afgaaffii Karoora matii Yeroo dheeradhafi fayyadani fi baqaqsanii maseensu irrati gaafataman.

- Gaafilee filanno deebii qabanif deebii deebi'an hundumatti mari.

A. Odeeffannoo waliigalaa:Ragaa sassaabdota fi to'atoota

Lak.	Gaafilee	Deebilee	Gara
01	Lakk.gaafii	_____	
02	Maqaa odeefanno funaantuu	_____	
03	Guyyaa odeefanon funaaname(akka lakk.hab.)	[_____/____/_____] Guyyaa, Ji'a, 2002	
04	Maqaa to'ata	_____	
05	Sadarkaa bargaafii	Sirritti xumurameera=1 Walakan xumurameera=2	

B. Haala hawasumma fi dinagdee (galii)

Lak.	Gaafilee	Deebilee	Gara
001	Umurii	Amana_____	
002	Haala gaa'elaa	1.kan hinheeruminee 4.kan jela du'e 2. kan heerumte 5.kan addan bahate 3.kan walhiikte	
003	Maatii meeqa qabduu?	Hammana_____	
004	Amantaa?	1.Ortoodoksii 4.Katooliki 2.Musliima 5.kan biran yoo jiraate--------- 3.Prootestaantii	
005	Sabumma?	1.Oromoo 3.Tigire 2.Amaara 4.Guragee 5.kan biran yoo jiratee----------	

006	Sadarkaa barumsaa?	1.kan hinbaratiin (dubbisuu fi bareessuu kan hindandeenye) 2.Bareesuu fi dubbisuu 3.barumssa ammayya(1-12) 1-6 ---------- 7-8 --------- 9-12 --------- 4.Kolleejii fi isaa ol	
007	Hojji(dalaga) ?	1.Barattuu 2.kan daldaltu 3.Hojjetuu mootuma ykn mitimootuma 4.Haadha mana 5.Dafqan bultuu(hojetuu guyya) 6.kan biraa yoo jiratee----------	
008	Galiin ji'an argatan meeqa?	_____	
009	Kan arman gadii keessa kam qabduu? -Radiyooni -Talavishinii -Ibsaa(korentii)	 1.Jira 2.Hinjiru 1.Jira 2.Hinjiru 1.Jira 2.Hinjiru	

C. Seenaa walhormaataa

Lkk.	Gafilee	Deebilee	Gara
010	Jalqaba yena heerumte umuriin kee meeqa turee?	_____	
011	Ijoolee meeqa qabda?	Dhira------- Dubartii----------Walumatti qabati-------	
012	Ulffii ba'uun simudatee beeka?	1. Eeyye 2.Lakkii	
013	Yoo simudate almeeqa?	1.1 2.2 3. 3 fi isaa ol	
014	Ijoolee meeqa qabachuu (godhachuu) barbaada?	_____(yoo 0 ta'ee)	

015	Lakkofssa ijoolee atti godhachuu barbaadu irrati eeny murteesa?	1.Aba mana 4.kan biraa yoo jiraatee------- 2.Haadha mana 3.Laman isaanii	

D. Gaafii beekumssa mala karoora maati wagga dheerafi masensuu

Lkk.	Gaafilee	Deebilee	Gara
016	Wa'ee mala karoora maati wagga dheeradhafi nama fayyadani fi wara takka godhanan dhala dhowan nibeekta?	1.Eyyee 2. Lakki (yoo deebin laki ta'ee gara gafii 024 deemi)	
017	Yoo deebiin gafii 015 eyye ta'ee waluma galatti fayyidan isaan qaban kam kami beekta?	1. Ulffa karoora malee dhowuuf gargaara 2. Dhukubii fi du'atii hadholii fi ijolee ittissa 3. Bayina matii murteessa 4. Dhal wal irra butuuf gargaara 5. kan biraa	
018	Yoo deebiin gafii 015 eyye ta'ee gosa kam kam beekta?(deebbi debi'ee hundumatti marii)	1.kan gadameesa keess awaalamu(IUCD) 2. kanirre keessa awaalamu(Implant) 3.Dhiira baqaqisanimasensuu (Vasectomy) 4. Dubartii baqaqsanii masensuu (Tubal Ligation) 5.kan biraa yoo jiraate----------	
019	Odeefanno mala karoora maatii eessa argatuu?(deebii deebi'ee hundumatti marii)	1.Dhabata fayya 5.Mitmootumma 2. maatii 6. kan biraa yoo jiratee---------- 3.hiriyya 4. Miidiyaa adda adda(TV, Radiyo, etc)	
020	Wa'ee mala kan gadameessa keesa awaalamuu(IUCD)malbeekta? (deebii deebi'ee hundumatti marii)	1.Bayye bu'a qabeessa 2.Waggaa gheeradhaf nam fayyada,(wagga 10 ol) 3.Harma hoosisu irrati dhibba hin fidu 4.Dubartoota dhukubadhiraatif saxilamaniif garii miti 5.wal qunamitii irratti rakkina hinqabu 6.Deebi'anii ulfa'uun nidanda'ama 7.Miidha inni fiduu xiqoodha	

		8. Hinbeeku 9.kan biraa yoo jiraate----------	
021	Wa'ee mala irree keessa awaalamuu mal beektaa? (deebii deebi'ee hundumatti marii)	1.Bayee bu'a qabeessa 2. Waggaa gheeradhaf nama fayyada,(wagga shaniif) 3. Harma hoosisu irrati dhibba hin fidu 4.Awwaalu fi baasuuf baqaqsuu xiqoo barbaada 5. wal qunamitii irratti rakkina hinqabu 6. Deebi'anii ulfa'uun nidanda'ama 7. Miidhan inni fiduu xiqoodha. 8.Hibeeku 9. kan biraa yoo jiraate----------	
022	Wa'ee baqaqsanii dhiira masensuu mal beekta? (deebii deebi'ee hundumatti marii)	1. Bayee bu'a qabeessa 2.Takka godhannan lamaffa dhala godhachuun hin danda'amuu 3.baqaqsuu xiqoo barbaada 4.Dhabatta fayyatii dedeebi'u hin barbachisuu 5 .walqunamtti fi fedhii walqunamti irrati rakkina hin qabu. 6. Ji'a sadii booda gutummaguututi fayyada 7.Midhan ini yeroo dheeradhaf fiduu hijiru 8.Gorsaa fi murteesani mallateesu barbaachissa 9.Hinbeeku 10.kan bira yoo jiratee----------	
023	Wa'eebaqaqsanii dubartii maseensuu mal beekta? (deebii deebi'ee hundumatti marii)	1. Bayee bu'a qabeessa 2.Takka godhannan lamaffa dhala godhachuun hin 3.salpaa fi baqaqsuu xiqoo barbaada 4. Dhabatta fayyatii dedeebi'u hin barbachisuu	

		5. walqunamtti fi fedhii walqunamti irrati rakkina hin qabu. 6. Midhan ini yeroo dheeradhaf fiduu hijiru 7. Gorsaa fi murteesani mallateesu barbaachissa 8. Hinbeeku 9.kan biran yoo jiraate----------	

E. Ilaalcha mala karoora maati wagga dheera fi baqaqsanii maseensuu irrati qaban

No	Gaafilee	Deebilee	Gara
024	Wa'ee mala karoora maati wagga dheerafi fayyadani fi maseensanii abba manaa ykn hiriyaa kee waliin nimari'ata?	1. Eyyee 3. Nan ilaalatu 2. Lakki 4. Kan bira yoo jirate ibsi_____	
025	Itti fayyadama mala karoora maati wagga dheera fi maseensuu nidegertaa?	1. Eyyee 3. Yaada hinqabu 2. Lakki 4. Nan ilaalatu	
026	Mala wagga dheera fi maseensu fayyadamun gaariidha?	1. Eyyee 3. Yaada hinqabu 2. Lakki 4. Nan ilaalatu	
027	Mala wagga dheera fi maseensu fayyadamu irrati yadnii abba mana /hiriyaa kee mal fakkaata?	1. Nideggera 4. Hinbeeku 2. Nimormaa 5.Isa hinilaallatu 3. Gidugaleessa 6. Yaada kan biran yoo jiraate ibsii_____	
028	Wa'ee mala wagga dheera fi maseensuu bayee beeku nibarbaada?	1. Eyyee 3. Deebi hinkenine 2. Lakki 4. Nan ilaalatu	
029	Wa'ee mala wagga dheera fi maseensuu baruuf yaltee beekta?	1. Eyyee 3. Deebi hinkenine 2. Lakki 4. Nan ilaalatu	
030	Mala karoora maati fayyadamu irrati,mala wagga dheera fi maseensu dabalatee enyuu ittigaafatamuma fudhata?	1. Hadha mana 2. Abba mana 3. Lamman 4. Hinbeeku 5. Nan ilaalatu6.Kan biraa yoo jirate ibsi	

031	Maati bayyen guddina dinagdee maati irrati dhiiba fiduu nidanda'an?	1. Eyyee 3. Deebii hinkeninne 2. Lakki 4. Hinbeeku	
032	Ijoolee ba'yee godhachun/maati ba'yeen fayyuma hadha fi ijoolee irrati dhiiba fidaa?	1. Eyyee 3. Deebii hinkeninne 2. Lakki 4. Hinbeeku	

F. Gaafilee fedhii mala karoora maati wagga dheera fi maseensuu

Lakk	Gaafilee	Deebilee	Gara
033	Kanaan dura mala karoora maati waggaa dheera fi maseensu fayyadamtee beekta?(warra beekumssa qaban qofaafi)	1. Eyyee 2. Lakki (yoo deebin lakki ta'e gara lakk.038)	038
034	Yoo deebiin Lakk. 033 eyyee ta'e yoom(umurii meeqati) jalqabde?	Umurii itti jalqabdee waggadhan bareesi----------	
035	Yoo deebiin Lakk. 033 eyyee ta'e waggaa meeqaf ittifayadamte?	hamana_____	
036	Yoo deebiin Lakk. 033 eyyee ta'e tajaajila isaa eesa argate?	1. Dhabata fayyaa mootuma? 2. Mitmootuma 3. Dhabata fayyaa dhunfa 4. Kan bira yoo jirate----------	
037	Yoo jijjirte sababinni isaa maal/mal ta'uu danda'a?(gadameessa keessa isa awwalamu fi irree keesa isa awwalamu Qofafi)	1. Dhiiba inni fiduun sodadhe 2. Rakkina fayyan qaba 3. Nan maseena/dhalan dhaba jedheen sodaadhe 4. Abba mana/hiriyaa kootu hineyaminee 5. Ulfa'un barbaade 6. Cubbuu wan ta'eef 7. Aadaan koo nidhorka 8. kan biran yoo jirate	
038	Yoo kanan dura mala karoora maati waggaa dheera fi maseensu	1. Dhiiba inni fiduun sodadhe 2. Rakkina fayyan qaba	

	fayyadamtee hinbeektu ta'ee sababni isaa mali?	3.Nan maseena/dhalan dhaba jedheen sodaadhe 4.Abba mana/hiriyaa kootu hineyaminee 5. Ulfa'un barbaade 6. Cubbuu wan ta'eef 7. Aadaan koo nidhorka 8. Beekumssa isa hinqabuu 9. Tajajili isaa hin jiruu 10. waan hin heerumneef 11. kan biraan yoo jiraate ibsi----------	
039	Fulduratti ittifayyadamu nibarbaada?	1.Eyye(yoo deebin eye ta'e gara 041) 2.Lakkii	041
040	Yoo fulduratti ittifayyadamu hin barbaadu ta'ee sababini isaa maali?	1. Dhiiba inni fiduun sodadhe 2. Rakkina fayyan qaba 3.Nan maseena/dhalan dhaba jedheen sodaadhe 4.Abba mana/hiriyaa kootu hineyaminee 5. Ulfa'un barbaade 6. Cubbuu wan ta'eef 7. Aadaan koo nidhorka 8. Beekumssa isa hinqabuu 9. Tajajili isaa hin jiruu 10. waan hin heerumneef 11. kan biraan yoo jiraate ibsi----------	
041	Yoo deebiin Lakk. 039 eyye ta'e mala isa kamitti fayyadamuu barbaada?	1.Gadameessa keessisaawwalamu(IUCD) 2.Irree keesa isa awwalamu(Implants) 3.Baqaqsanii dubartii maseensuu 4 .Baqaqsanii dhiira maseensuu 5.kan bira yoo jiraate ibsi----------	

Yaada gaafifi deebii ykn qu'annoo keenya ilaalichisee yoo qabaatan nuf ibsaa? Dhuma irratti fedhidhan hirmaachuu keesaniif galataa keenya kan onnee irra made isiniif dhiyeesuun barbaada.

Qajeelcha mare dubartoota maamila mala karoora maati wajji gageefamu.

Akkam bultan/ooltan? Bu'aan qo'anno kana tajaajila kenninsa karoora maati magaala kana foyyesuu keesatti gumaacha gudaa gumaacha jenne waan abdanuuf marii kana isiiniif dhiyeesine.Mariin nuti isiini wjjiin taasifnu bakka ga'umssa,jajjabina,ittifayyadama fi babal'ina tajaajila karoora maati keesumatuu mala karoora maati wagga dheera fi maseensuu keesatti bakka gudda qaba. Marii keenya keesatti mala karoora maati wagga dheera fi maseensuu ilaachisee gaafi beekumssa,ilaalcha,fedhii fuldura fi akka ittihin fayyadamine kan godhan isiniif dhiyeeseen irrati mari'ana. Utuu mariiti hingaliin dura hirmaanna keesaniif baye'en isin galateefadha.

Qapxiilee marii

1. Ummani wa'ee karoora maati akkamiti hubata? isini'o?
2. Wa'ee mala karoora maati waggaa dheera(kan gadameesa keesa awwaalamu , kan irree keesa awwaalamu) fi baqaqsanii maseensuu(baqaqsani dhiira maseensuu,baqaqsanii dubartii maseensuu) isin /uumatni mal beektu/beeka?
3. Maalif isin/uumatni mala karoora maati waggaa dheera fi baqaqsanii maseensuuti itti hinfayadamine?
4. Faayiidan ykn miidhan mali karoora maatii waggaa dheera fi baqaqsanii maseensuu wara kaan irratti qabu maal fa'i?
5. Wa'ee mala karoora maati waggaa dheeradhaf fayyadanii fi baqaqsanii maseensuu baruu nibarbaadu? sababnii isas maali?
6. Beekumsi uumatni mala karooraa maati waggaa dheeraf fayyadanii fi baqaqsanii maseensan irrati qabu mal fakaata?
7. Namooni mala karoora maati waggaa dheeraf fayyaduu fi baqaqsanii maseensuutti fayadamuu yoom jalqabuu qabu? Eenyuutus fayyadamuu qaba?
8. Baa'innii ijoolee isin ga'adha jettanii yaaddan meeqadha?
9. Maatii bayee horachun faayida qaba moo hin qabu? Sababni isaa hoo?
10. EEnyutu baayina ijoolee isin godhatan murteesa? Sababni isaa hoo?
11. Mala karoora maati kana keessa(gadameesa keesa kan awwaalamu,irree keessa kan awwaalamu fi baqaqsanii maseensuu) kam filata? Sababnii isaa hoo?
12. Ittifayyadama baqaqsanii maseensuu fi maloota wagaa dheeraf fayyadani irrati ilaalchi keesan ykn uumata magaala kana keesati mal faakata? Dhuma irrati marii mala karooraa

maati waggaa dheeraf fayyadanii fi baqaqsanii maseensuu gadhamee ilaalchisee yaadin dabaltan yoo jiraate?

Hirmaanna keesaniif galatooma.

Annex 5- Map of study area

Map of west shoa zone, Oromia national Regional State

Annex 6-knowledge scoring system

Knowledge scoring system

Variables	Score
Very effective	1
Permanent/long acting	1
Immediately reversible	1
Had minimal side effect	1
No interaction with medicine	1
No effect on breast feeding	1
No supply/frequent clinic visit	1
No effect on sex perf0rmance & sensation-	1
Fully Effective after 3 month	1
Protect from Ovarian Cancer	1
Not good for STI prone women	1
Need safe & simple surgery	1

Annex-7 Attitude scoring system

Characteristics (attitude factors)	Score given
Do you communicate with Husband/friend?	
Yes	1
No	0
Support use of LAPMs	
Yes	2
No	0
No idea	1
Don’t concern me	1
Friend/Husband attitude on LAPMs	
Support	2
Against	0
Neutral	1
Don’t concern me	0.5
I don’t know	0.5
Is it good to use LAPMs?	
Yes	1
No	0
No idea	0.5
Don’t concern me	0.5
Need to know more on LAPMs	
Yes	1
No	0
No idea	0.5
Tried to know more on LAPMs	
Yes	1
No	0
Don’t concern me	0.5
Responsibility in using LAPMs	
Wife	0.5
Husband	0.5
both	1
Don’t know	0

Large family has problem on economy	
Don’t concern me	0
Yes	1
No	0
Don’t know	0.5
Large family has problem on MCH	
Yes	1
No	0
Don’t know	0.5

Declaration

I, the undersigned, declare that this is my original work, has never been presented in this or any other university and that all the source materials used for the thesis have been duly acknowledged.

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Date of submission:

Approval of the primary advisor

This thesis has been submitted for examination with my approval as a university advisor

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Signature _____

Date: June, 2010