

# Assessment of Knowledge, Attitude and Utilization of Long Acting Family Planning Method among Women of Reproductive Age Groupe in Mizan-Aman Twon, Bench-Majizone, South West Ethiopia, 2016

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## Abstract

**Background:** Family planning is having the number of child you want to have and when you want them. Knowledge and utilization on long acting and reversible family planning plays a major role in reducing maternal and child morbidity and mortality rate. In addition, family planning encourages women to have better health and it increases female's exposure to work place productive activity. Currently, the world population growth is increasing through time to time in fastest manner. Such kinds of problems are much significant in developing countries like that of Ethiopia. This is true because currently Ethiopia is one of the most populated countries in Africa.

**Objective:** To assess the knowledge, attitude and utilization of long acting family planning method among women of reproductive age group in Mizan-Aman town, in selected Keble's.

**Methodology:** A community based Descriptive cross-sectional study was conducted from April 08 to April 30, 2016 G C among reproductive aged women. The Study was conducted in selected Keble's in Mizan teferi, Ethiopia. Multi stage sampling technique was used to select 731 study participants. A pre-test and structured questionnaire was used to collect the data and all the returned questioners were cleaned and coded manually and transferred to spss version 20 for further analysis, descriptive statistics was used and tables and graphs were used.

**Result:** A total of 731 reproductive age women were included in the analysis. The proportions of respondents who had low, moderate, and high knowledge was 6.06%, 52.02%, and 42% respectively and 65.02% of women had positive attitudes. Only 18.2% of the respondent's utilized LAFPMs which is still dominated by short acting methods that was injectable.

**Recommendation:** For Mizan-Aman health bureau and other stakeholder work on family planning: strengthen continuous education on LAFPMs by model LAFPMs users and advocate for method uptake during clinic visit. Health extension workers should enhance discussion between couples.

**Keywords:** Long acting; Family planning

**Abbreviations:** CSA: Central Statistics Authority; EC: Ethiopian Calendar; EDHS: Ethiopian Demographic Health Survey; FP: Family Planning; GC: Gregorian Calendar; IUCD: Intra Uterine Contraceptive Service; KAP: Knowledge, Attitude and Practice; LAFPMs: Long Acting Family Planning Methods; PI: Principal Investigator; TFR: Total Fertility Rate; UNESAPD: United Nations Economics and Social Affairs Division; USAID: United Nation Aid for International Developments; WCA: Women of Child Bearing Age; WHO: World Health Organization.

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## Introduction

Family planning is defined having the number of children you want when you want them. It is achieved through use of contraceptive methods [1].

Family planning is voluntary use of natural or modern contraceptive by individual or couples. This approach helps the users to have the number of children they want to have and to assure the wellbeing of children as well as parents. The goal of FP is to decrease the rapid growth of population so that it will be compatible with living standard of the people. It also contributes for the effort to create sustained and efficient use of countries resources [2].

There are traditional methods of family planning, which is divided in to withdrawal and rhythm, and there are modern family planning methods, which is divided in to three: long acting reversible contraceptive methods (IUCD and Implants); permanent contraceptive methods (Tubal ligation for females and vasectomy for male) and short-term contraceptive methods (oral pills, injectable, male and female condoms, foam tablet and cervical cup [3].

Intra uterine contraceptive devices [IUCD] and implants are long acting reversible contraceptive methods (LARCM); when removed, return to fertility is prompt [4].

Modern family planning methods account for the majority of current global contraceptive practices; almost nine out of every ten contraceptive users rely on a modern method. Female sterilization, intra uterine device and oral pills account for more than two-third of all contraceptive practice worldwide [5].

Globally, female sterilization is the single most used method and alone accounts for one-third of all contraceptive use worldwide. The IUCD is used by (22%) of all contraceptive users and the oral pill by (14%). The use of modern contraceptive methods differs significantly between the developing and developed areas. In the developing areas modern methods account for much larger share of total contraceptive use (90%) than in the developed areas (70%) [5].

In Ethiopia, the progress of contraceptive prevalence rate (CPR) is increased to 42 percent and total fertility rate of four [6]. Understanding the magnitude of need for modern family planning services, the Federal Ministry of health (FMOH) has considered the important role of long acting contraceptive methods and aim to provide all family planning clients with the long acting and permanent methods [7].

Currently, family planning becomes an important issue throughout the whole world. This is because of the unexpected and rapid population growth, as a result exposes to high maternal mortality and even the level of economic development and health care demands that uncontrolled fertility rate negatively effects on the family and the society as a whole [8].

Starting from the 1960, family planning service has become the major worldwide activity to influence fertility in the year 1965 family planning was accepted as an issue by only 21 countries, but in less than two decades, to mean that in 1983, access to family

planning method in its modern way was limited in only seven countries useable, it is less than 1% of the world's population [9].

Ethiopia's population policy has been promoting the family planning method since 1989. Family planning contribute in the reduction of maternal and child mortality and morbidity, unwanted pregnancy and its consequence. In addition to this family planning encourages women to actively participate in production? In some regions community based on FP service have shown a significant progress in political, economic and social aspects. Therefore, in order to enhance the access of FP for house hold at community level Family planning extension package was designed [10]. This package is also important strategic tool to decrease maternal death by spacing or preventing pregnancies that occur too early or too close. This could avoid about 20% of maternal death or over 2500 maternal death and pregnancy related death over year in Ethiopia [11].

Long acting and permanent methods are by far the most effective type of modern contraception (with success rate of 99% or higher) and they are very safe, convenient and cost effective in the long run. This includes IUCD, Implants. They are all clinical methods and must be provided in health facilities by trained health professionals.

The world population in the year 1987 GC was 5 billion and it became 6 billion in year 2000 GC. Thus, it is increasing by 1.4% per year approximately. Therefore, if this rate of growth continues in such manner, the population will be 10 billion in 2035 [1]. If this rate of population growth continues in such manner, it will result economically, socially and health crisis throughout the world.

Unable to use modern contraceptives leads to unwanted pregnancy which intern results economic and social problem in the family. If the mother is giving birth frequently without enough gaps in between, she is stayed at home rearing her children. This problem prevents her from being active participant in the country and she will draw from social activity, it causes famine and makes the ecosystem unfavorable [12]. In terms of Health crisis unplanned pregnancy is known to represent a serious problem in Ethiopia today although only limited empirical data are correctly available. But the 2005 district hospital finding show more than 20-40% death of mothers is due to the complication of unsafe abortion. Most victim of unplanned pregnancy was adolescent. Giving birth at extreme age i.e., at early adult hood age and near to Menopause periods has health burden for both the mother and the neonate [13].

Currently, the world population growth is increasing through time to time in fastest manner. Such kinds of problems are much significant in developing countries like that of Ethiopia. This is true because currently Ethiopia is one of the most populated countries in Africa [14-20].

According to the 2014 GC Ethiopian mini demographic health survey (EMDHS) the total fertility rate in the mentioned year was 4.1 children per woman. The data show that the TFR decreased only slightly from 5.5 children in 2000 to 5.4 children in 2005, with a more pronounced decline to 4.8 children in 2011. This trend continues between 2011 and 2014 with fertility declining by 0.7 children per women. There are variations in TFR among regions of

developing and developed once. That is ranging from 1.7 children per woman in Addis Ababa (below the replacement level of fertility) to 6.4 children per woman in Somali. Fertility levels are higher than the national average in Somali, Benishangul-Gumuz, Afar, Tigray, Oromiya and SNNP. The level of fertility is inversely related to women's educational attainment, decreasing from 5.0 children among women with no education to about 2 children each among women who have secondary or higher education [14,15].

Therefore, creating awareness about family planning, increasing family planning service provision & again reducing the cost of family planning service are the basic element to minimize the fast growing of population in Ethiopia. However, despite many advantages long acting family planning service utilization remains relatively small and sometimes missing components of many national reproductive health and family planning method. Such studies will assess the knowledge, attitude and utilization of LAFPMs among reproductive age of women in Mizan Aman town.

## Methodology

### Study design

- A community based descriptive cross-sectional study was conducted.

### Study area and period

This study was conducted from April 08 to April 30, 2016 EC in Bench-Maji Zone Mizan-Aman town. The zone has total population of 760,314; of which 381,449 are males and 378,865 are Females. MizanTeferi with the neighbouring town of Aman forms a separate woreda called Mizan-Aman surrounded by south Bench Woreda. Mizan-Aman town is the largest town and administrative center for Bench -Magi Zone. This town has latitude and longitude of 7°0'N 35°35'E/7.000°N 35.583°E and an elevation of 1451 m above sea level. The zone has 33 health centers, one General Hospital, and also the location of two institutions of Higher education, namely Aman Health Science College and Mizan-Tepi University. The General Hospital is located in Aman town and established in 1986. According to the South Nations Nationalities and Peoples Region Bureau of finance and economic Development, as of 2003 MizanTeferi's amenities also include digital telephone access, postal service, and a bank and a hospital. Near the town is the Bebeke coffee plantation. Based on the 2008 census conducted by central statistics Agency, Mizan-Aman woreda has a total population of 48,934 of whom 23,978 are men and 24,959 are women. The majority of the inhabitants practiced Ethiopian Orthodox Christianity, with 45.97% of the population reporting that belief, 33.8% were Protestants, 17.71% were Muslim, and 1.05% practiced traditional beliefs.

### Target population

- All women of child bearing age living in Mizan-Aman town.

### Source population

- All women of child bearing age living in Mizan-Aman town, in selected kebeles.

### Study population

- Systematically Randomly Selected women of child bearing age living in Mizan-Aman town, in selected kebeles

### Study unit

- Individual.

### Inclusion criteria

All women of child bearing age living in Mizan-Aman town, Kommeta and Adis ketema Kebele.

### Exclusion criteria

- Woman who stays in the study area for less than 6 months.
- Women who are unable to communicate.
- Women who are living outside the specified Keble.

### Sample size, sampling technique and sampling procedure

**Sample size:** The sample size for this particular study was determined by using single population proportion formula using a basic assumption of 95% confidence level, 5% margin of error and Proportion (P): proportion of long acting reversible contraceptive Method (LARCM) use was 34.8% among family planning users in Addis Ababa and using the formula,

$$n_i = \frac{Z^2 P (1-P)}{d^2}, n_i = \frac{(1.96)^2 0.348(1-0.348)}{(0.05)^2} = 348$$

Since it is multi stage sampling technique so by using design effect and multiplying by 2 becomes 696 and Contingency (for non-response=5%) =34.8=35 so the final sample size is  $n_f=731$ .

### Assumptions

$n_i$ =initial sample size; 348;  $n_f$ =Final sample size=731; Z=confidence level which were 95%; P=proportion=34.8%; d=the margin of error was taken as 5%.

**Sampling technique:** Multi-stage sampling Technique was used to select the study subjects.

**Sampling procedure:** The study was conducted in two Keble's of Mizan-Aman town. From five Keble's found in Mizan-Aman town, two Keble's were selected using simple random sampling method (lottery method). The sample size was allocated to each Keble's by proportional to size of house hold from selected Keble's by considering that there is at least one reproductive age women per house hold. The study participants were selected by systematic sampling method from those selected Keble's. The first house was selected by lottery method to avoid bias and was continued every  $K^{th}$  interval ( $5^{th}$  interval). The sampling interval of households in each Keble was determined by dividing the total number of house hold to final sample size. when two or more children bearing age women were present in one household, only one women was considered in the study on random to avoid intra-class correlation.

$$K = \frac{N}{n_f}$$

$$K = \frac{4,012}{731} = 5.41 = 5$$

where, N=total Number of House Hold;  $n_f$ =final sample size; K=Sampling interval.

### Data collection tool and procedure

The data was collected by carefully designed and standardized questionnaires which were developed from deferent literatures. The questionnaire was developed in English language originally and translated to Amharic. The study instrument was taken from studies done in Addis Ababa town. The survey questionnaire was pre -tested and the necessary modifications and correction took place to ensure its validity.

The data was collected by six 4<sup>th</sup> year midwifery students in April 08 to 30 2008 EC from selected Keble's. To maintain the quality and uniformity of the data we discussed on how to approach and collect the data. Then, we were taken an ethical clearance from department of midwifery, college of health science, Mizan-Tepi University, and woreda health office. During data collection, we were told the significance of the research to the respondents then take consent of the respondents. After that collect, the data using manual structure and well organized questionnaire prepared for face to face interview by translating it to Amharic language then go back to English. After collecting the data, we were checked the completeness of each question.

### Data quality control

To keep the consistency of the questionnaire, it was first prepared in English and then translate into Amharic and back to English in order to keep its consistency. A pre-test was done on 10% (73) of the study unit 1 week prior to data collection outside selected Keble's in Mizan-Aman town and modification was done according to the pre-test. The data collectors were check the completeness of the questioner before the leave each questioner. Supervision was done by principal investigators together for data quality and completeness. Each questionnaire was given a unique code by the Principal Investigator. The principal investigator prepared the template and entered data using SPSS version 20 then, the entered data were cleaned for anomalies prior to data analysis. Frequency distributions were used to check for missed values and outliers during analysis. Any errors were corrected after revision of the original data using the code numbers of the questionnaires. Data were cleaned for inconsistencies and missing values and analyzed using SPSS version 20 statistical software.

### Data analysis and processing

The data was analyzed using Statistical Package for social science (SPSS) version 20. Women's knowledge was measured by the total number of correct answers to six items of knowledge with a minimum score of zero and maximum six. Measure of knowledge was categorized based on the percent of knowledge of the distinct characteristics of LAFPMs as high those who knew 75% and above, moderate those who knew 50-74% and low those who knew less 50%. The study participant's attitude was measured as positive and negative attitude. Three-point attitude likert scales were used with six attitude questions considered, and those that have

scored above mean was grouped as positive attitude and mean or below mean were grouped as negative attitude. Frequencies and Proportions were computed for a description of the study population in relation to socio-demographic and other relevant variables (age, marital status, no children). Descriptive statistics like frequency distribution mean and standard deviation was used. The results were presented in the form of tables, figures and summary statistics (**Figure 1; Tables 1-9**).

### Ethical consideration

Official letter was written from Mizan-Tepi university college of Health Sciences department of Midwifery to Mizan-Aman Town health administration office and in turn Mizan-Aman Town health administration office was written letter to Kometa and Adisketema Keble administration office in order to get permission and cooperation. The oral consent from the respondent was obtained and assured the confidentiality of the respondents. Then the purpose of the study explained for the participants. Individuals had full right to be involved in the study or not.

### Dissemination of plan

The finding of this study will be presented and submitted to Mizan-Tepi University college of health science Department of Midwifery The final findings of this study will be disseminated to Bench Maji zone health bureau, North Bench health office. Effort will be made to publish on peer review journal to make accessible for peoples.

## Results

### Socio demographic characteristics

A total of 731 child bearing age women were included in the interview making a response rate of 100%. Among those study participant's, 332(45.5%) were at the age of 25-34 years, 260 (38.4%) were at the age of 15-24 and 119(16.2%) were in the range of 35-44 years old. The mean age of participants was  $26.6 \pm 6.05$ . Out of 731 study participants' 126(18.2%) were LARCM users, and majority of them 57(45.2%) were in the age range of 25-34 years. With regard to Marital status of study 731 participants Majority 516(70.1%) were Married while 20(2.7%) were cohabiting. LARCM users (n=133), 80(60.3%) were married. out of 731 Study participants 298(40.8%) were orthodox Christian followers 235(32.1%) were Protestants. Majority 204(27.9%) of women from study participants were Amhara by ethnicity. Concerning their educational status of study participants 350(47.9%) had secondary education while 16(2.2%) graduated from higher education (BSC and above). LARCM users (n=133), 42(31.6%) had primary education and 4(2.6%) were Women with no formal education. Regarding occupational status of 731 study participants, majority of the respondents 358(48.97%) were house wives and the least 26(3.55%) were self-employed (**Table 1**).

### Reproductive history of study participants

From a total of 731 study participants, 586 (80.3) had given birth Previously of these 370 (63.1%) had 1-2 children while 88 (15.01%) had 3-4 children, 472 (80.5%) gave birth at the age of less than 20 years and one hundred twenty-two (16.7%) had



**Table 1** Showing the Socio-Demographic characteristics.

S.No	Socio demographic	Number (731)	Percent
1	Marital status		
	Single	105	14.2
	Divorced	30	4.1
	Separated	30	4.1
	Widowed	30	4.1
2	Religion		
	Muslim	192	26.3
	Others	6	0.8
3	Ethnicity		
	Oromo	176	24.1
	Kaffa	66	9
	Tigrie	96	13.2
	Bench	65	8.8
4	Others	124	17
	Educational status		
	No educational	61	8.2
	Elementary	120	16.4
	Secondary	350	47.9
5	Diploma	184	25.2
	Higher education	16	2.2
	Occupational Status		
	Government employee	70	9.6
	Self-employee	26	3.6
	Merchant	166	22.7
	Hand craft makers	10	1.4
	House wife	358	49
	Daily labourer	60	8.2
	Student	41	5.5

History of abortion, the mean age of first marriage and first birth were  $16.68 \pm 2.13$ , and  $18.63 \pm 2.18$  years, respectively. Out of 731 study participants 516 (70.5%) were married, out of this majority 408 (78.9%) got married at the age of less than 18 years and Out of 133 (18.2%) LARCM users, 101 (80%) were married at the age of 18 and above and 111 (87.5%) had given birth at the age of 20 and above. From 133 LARCM users, 70 (52.5%) had 3-4 children and twenty-one (17.9%) had history of abortion (**Table 2**).

### Source of information on modern and LAFPMs among study participants

Out of 731 participants, majority of them 707 (96.7%), heard/aware about modern family planning of these respondents who have had information about modern family planning methods, 692 (98.15%) of them had information/awareness about Long acting family planning methods and 470 (68.1%) were heard message through mass media within 12 months on LARCMs. From 707 (96.7%) study participants who have had information about modern family planning methods, 312 (44.1%) heard from health professional followed by 192 (27.1%) were from mass media, 121 (17%) were from Relatives and 82 (11.6%) were from their Husbands.

### Knowledge of women about long acting family planning methods

In this study, a total of 731 reproductive age women's who have information on LAFPMs were interviewed. Of these 130

**Table 2** showing the reproductive Characteristics.

Number of alive children (586)	Frequency	Percentage%
1-2	366	62.45
3-4	154	26.27
>4	66	11.26

(17.91%) did not know that IUCD can prevent pregnancy for 12 years, 433 (59.25%) did know that IUCD do not interfere with sexual intercourse, five hundred and forty-seven (74.85%) of the study participants had knowledge about the notion that Implant prevents pregnancy for 3-5 years. Among the study participants, 502 (68.78%) had knowledge that after immediate removal of Implant, women become pregnant. From women of reproductive age group study participants (n=731), 381 (52.02%) had moderate knowledge and the least 44 (6.06%) had low knowledge and from LAFPMs users (n=133), 100 (75.5%) had high knowledge and the least 11 (7.93%) had low knowledge (**Table 3**).

### Attitude of study participants towards long acting family planning methods

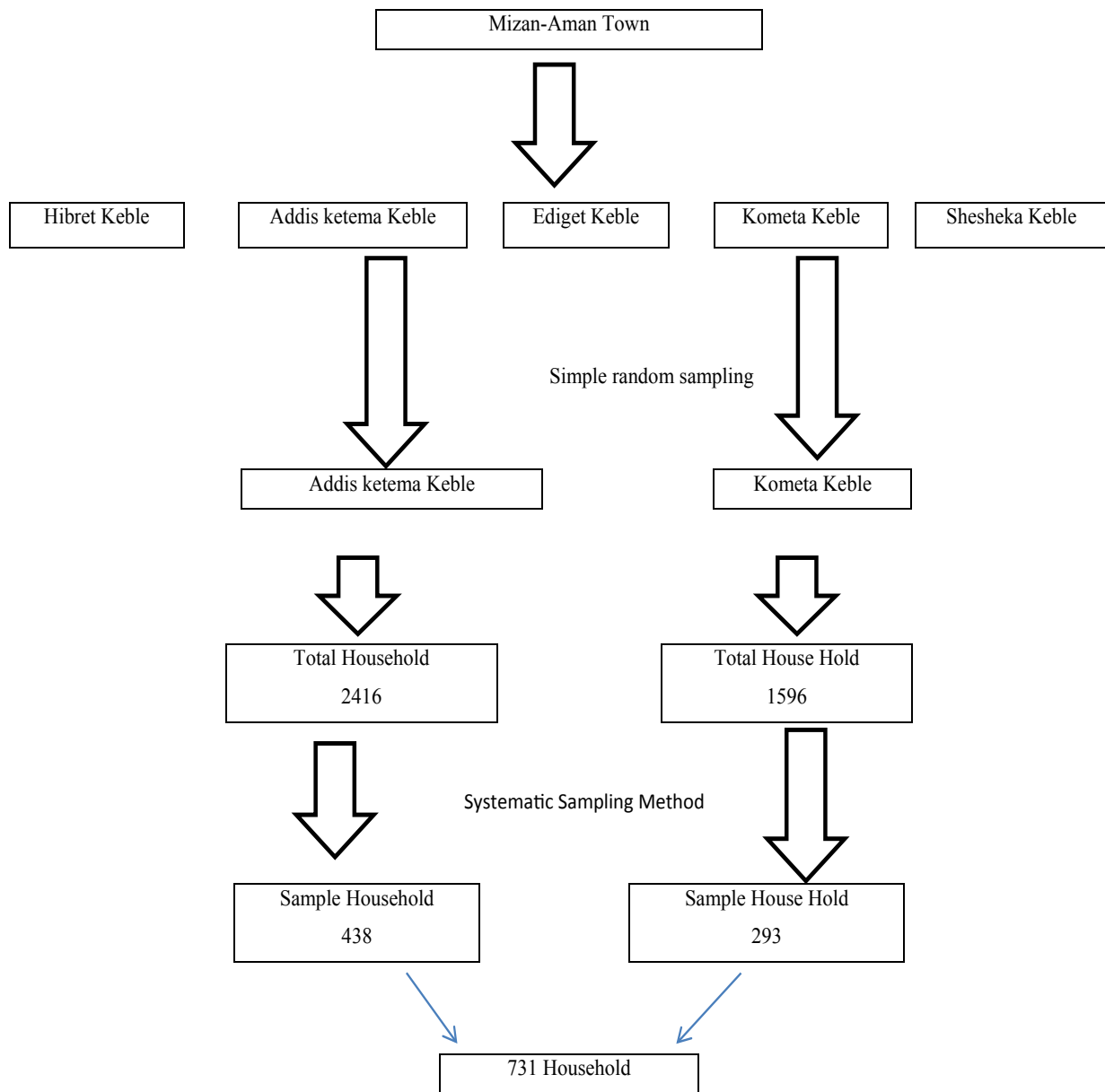
Among 731 women's of reproductive age groups in this study area, 266 (36.41%) thought that Implant does not cause irregular vaginal bleeding and 129 (17.63%) reported that insertion and removal of Implant was not highly painful. One hundred and fourteen (15.54%) agreed that insertion of IUCD does not lead to lose privacy and 108 (14.74%) said that IUCD do not restrict from performing daily activities. From 731 study participants 476 (65.02%) had positive attitude and out of (133%) LAFP users 70 (52.3%) had supportive attitude (**Tables 4 and 5**).

### Utilization long acting family planning methods among women's heard of long acting family planning methods

From 731 reproductive age women's, most of the participants, 562 (76.87%) were utilized modern family planning methods of these Majority 370 (50.52%) used injectables, 133 (18.2%) utilized long acting family planning methods and least 12 (1.7%) used IUCD (**Table 6**).

In this study, 692 (94.6%) were used modern family planning method on the previous service and the most preferred method that 412 (59.53%) study participants ever used were injectable and least 10 (1.44%) used was IUCD. From 731 women's of reproductive age groups, 447 (61.1%) women were shifted/switch from one contraceptive method to other contraceptive method. Among those women's, majority 208 (46.5%) were shifted/switched from short to long acting contraceptive method. Out of 133(%) the LAFPMs users, 113 (84.6%) were shifted from short to long acting contraceptive methods, main reason to shift from one contraceptive method to another contraceptive method, 181 (40.42%) were need for long acting followed by 138 (30.96%) were provider advise (**Table 7**).

From the current modern family planning users who are not using LARCM (n=428), their main Reason 187 (43.5%) were need for short acting and least 4 (0.9%) were due to medical causes. Main reason for not utilizing long acting (n=428).



**Figure 1** Schematic presentation of sampling Procedure.

**Table 3** Showing Knowledge of Study Participants.

Knowledge statements of women reproductive age on LAFPMs(731)	True		False	
	No	%	No	%
IUCD can prevent pregnancies for 12years	601	82.08	130	17.91
IUCD can prevent Sexually transmitted Infections(STIs)	212	28.9	519	71.1
IUCD interfere with sexual intercourse or desire	298	40.75	433	59.25
Implant can prevent pregnancies for 3-5 years	547	74.85	134	25.15
Implant caninterfere with sexual intercourse or desire	203	27.74	528	72.26
Implants reverse pregnancy quickly when removed if the women need to be pregnant	502	68.78	229	31.22
Knowledge score of respondents(731)				
Level of knowledge	Number		Percent	
High	306		41.9	
Moderate	381		52.02	
Low	44		6.06	

**Table 4** Showing Attitude of Study Participants Towards Long Acting Family Planning Methods.

Attitude on long acting family planning methods (n=731)	Agree		Not Sure		Disagree	
	No	%	No	%	No	%
Using implant does not cause irregular bleeding	266	36.41	250	34.10	215	29.47
Insertion of intrauterine Contraceptive devices does not lead to lose privacy	114	15.54	390	54.04	227	31.05
IUCD doesn't move through the body after insertion.	127	17.34	322	43.64	285	39.01
Using intrauterine contraceptive devices do not restrict normal activities.	108	14.74	285	39.01	338	46.24
Insertion and removal of implant is not highly painful.	129	17.63	203	27.74	399	54.62
Implant doesn't move through the body after insertion.	123	16.76	160	21.96	448	<b>61.27</b>
Attitude score towards LARCM						
	Number (731)			Percent		
Positive attitude	476			65.02		
Negative attitude	255			34.98		

**Table 5** Showing utilization of long acting family planning method.

Variable	No	%
Pills	48	6.64
Injectable	370	50.52
Implant	122	16.47
IUCD	12	1.7
Other	10	1.4

**Table 6** Showing utilization of modern and LARCMs of study participant.

S.No	Variables	Frequency	Percent
1	Which type of modern contraceptive? Method has you ever used		
	Pills	110	15.89
	Injectable	412	59.53
	Implant	84	12.2
	Others	76	10.9
2	From which contraceptive method to which Contraceptive method (recent one)? (n=447)		
	Long to long	21	4.7
	Long to short	119	26.5
	Short to long	208	46.5
	Short to short	99	22.2
3	Why did you shift/switch from one method to another? (n=447)		
	For inconveniency of previous method	17	3.78
	For convenience of new method	53	11.82
	Due to lack of access to the previous method	12	2.6
	Due to side effect	46	10.4

## Discussion

The results of the study revealed that the proportion of women who had ever heard about LAFPMs was 692 (94.7%) and the proportions of respondents who had low, moderate, and high knowledge was 6.06%, 52.02%, and 42% respectively. This is higher than study done in Addis Ababa, Ambo and Mizan

**Table 7** Showing reasons for not using long acting family planning method.

Variable	Frequency	Percent
Misconception	139	32.5
Fear of Side effect	78	18.2
Fear of infertility	20	4.67

Aman town 21.3%, 36.4% and 33% of respondents had high knowledge, this indicates as there is an improvement in the level of awareness which may be explained by advancement of information, education and communication to the community by media and health extension workers. But it is lower than study done in Debremarkos town which was 81.5% and in Ethiopian demographic and health survey of 2014 the level of awareness for IUCD and implant was 38.9% and 73.5% respectively, this may be due to different socio demographic characteristics, study design and sample size. In this study, participants awareness of effective duration of effectiveness of IUCD and implant was (82%) and (74.85%) respectively, it was higher than study done in Uganda which was IUCD (68.5%) and implant (69.9%) and Addis Ababa IUCD (40.6%) and implant (64.3%) [22-35], this may be due to that the government has given due attention and change of communities' awareness and perception through mass media advertisement. This may be also the contribution of HEW. And it was in line with study done in Ambo IUCD (79%) and implant (84.4%) [36].

Regarding to the attitude this study revealed that 65.02% and 34.9% of women had positive and negative attitudes respectively. This shows more than half of study participants had positive attitude as compared to study done in Mekele (53.6%) of study participants had negative attitude [32], this discrepancy may be due to socio economic variations and different awareness creating techniques between communities and health extension workers among different towns. And it was in line with study done in Ambo (51.7%) had positive attitude [36].

This study also shows 29.47%, of women perceived that implant causes irregular bleeding, this is higher than study done in Ambo (15.5%), and lower than study done in Mekele (50.5%). 54.6% and 31.05 of women perceived that implant causes severe pain during insertion and removal, this is also higher than study done in Ambo (26.6%). Acceptance in the current study might be due to its convenience and there are no cultural influences related to the procedure of implant that leads to have a positive effect on the acceptance of LAFPM. And in line with study done in Mekele (46.6%) [32-36]. In this study 31.5% of women perceived that IUCD causes shame while it is inserted to cervix by health professional. This is similar with study done in Ambo (29.7%) and Mekele (29.7%) [32-36].

The results of the study also revealed that the proportion of women currently using LAFPMs was 18.2 % in the Town/District. This result is higher than Arba Minch which was 13.1% [37], this might be due to; having positive attitude was prerequisite for using contraceptive method. And lower than study conducted in Ambo town, Addis Ababa and Uganda which was 31.8%, 34.8% and 31.7% respectively (36-35-22). The possible explanation for the difference is that as socio demographic, cultural values, sample size and study design may have contribution.

Current use of IUCD in this study area was 1.7%, which was higher than EMDHS 2014 which was 1% [15], and similar with study done in Debremarkos (2.8%) [34]. However, it is lower than study done in Kenya (14.4%), Ambo (6%) and Addis Ababa (6%) [24,35,36] this low result also might be due to women aged 15-24 were at the beginning of childbearing age hence they had limited

utilization of IUCD due to need of short acting methods for more birth.

The current use of implant was 16.5% which was greater than in Adigrat town in Tigre region (10.2%) and EMDHS 2014 which was 4.9% [15,35], and it was in line with Debremarkos town (16.4%) and Ambo (17.7%) [34-37]. But it was lower than study done in Addis Ababa (22.4%) [38,39].

## Strengths and Limitations of the study

### Strengths

- Inclusion of study participants from rural and urban part of the District.

### Limitations

- Perceived social-desirability of responses rather than actual knowledge or practices could be response biases.
- The study used to assess based on only client perspective but other perspectives such as Professional counselling, availability of adequate supply, trained professional and others might have significance.

## Conclusion and Recommendation

### Conclusion

In this study, approximately 42% of study participants among reproductive age groups had high knowledge; only 6% of women have had low knowledge. And 65% of study participants had positive attitude towards long acting family planning methods, but the utilization remains low (18.2%) which is still dominated by short acting method that were Injectable followed by implants.

### Recommendation

Based on the findings of the study the following recommendation will be forwarded for:

- Federal Ministry of Health,
- South Nations, Nationalities and Peoples Regional health bureau,
- MizanAman health bureau,
- Mizan-Aman Teaching Hospital,
- Mizan Health center,
- For Service providers,
- For researchers

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