

**Addis Ababa University, College of Health Sciences School of
Public Health**

**Demand for Long Acting Contraceptive Methods and Associated Factors Among Family
Planning Service Users in Public Health Centers, Addis Ababa, Ethiopia, 2017**

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List of Acronym and Abbreviation

AA	Addis Ababa
AAU	Addis Ababa University
CPR	Contraceptive Prevalence Rate
EDHS	Ethiopian Demographic and Health Survey
FP	Family Planning
HC	Health Center
ICPD	International Conference on Population and Development
IRB	Institutional Review Board
IUCD	Intra Uterine Contraceptive Devices
LACM	Long Acting Contraceptive Method
LAFP	Long Acting Family Planning
LARCM	Long Acting Reversible Contraceptive Method
OCP	Oral Contraceptive Pill's
OR	Odd Ratio
SDG	Sustainable Development Goals
STI	Sexual Transmitted Infection
TFR	Total Fertility Rate

Abstract

Background: -All individuals and couples have a basic human right to decide freely and responsibly the number, spacing, and timing of their child. However, the use of FP in Ethiopia has been limited to short-acting methods due to limited access to LAFPM, commodity shortages, and lack of skilled health care providers to offer services at the community level. The prevalence of LACMs use is 13% in the world and LACM use coverage is 2%, for Sub-Saharan Africa [6] and for Ethiopia, LACM use coverage is 3.7% [7] also the prevalence of implant in 2000, 2005, 2011 and 2016 show (0, 0.3, 3, 8) respectively but still the trend show slow improvement [8].

Objective: To measure the demand for long acting contraceptive methods and associated factors among family planning service users in public health centers, Addis Ababa, Ethiopia, 2017.

Methods: Cross-sectional facility based descriptive quantitative study was conducted from July 1 - August 1, 2017 in selected government HCs in Addis Ababa, Ethiopia. Multi stage sampling technique was used to select the 848 study samples. A pre-tested and structured questionnaire was used to collect the data. The data analysis was performed using Statistical Package for Social Sciences (SPSS) version 20 software. Descriptive, bivariate and multivariable logistic regression analysis was done. Odds ratio from logistic regression was used to identify their association with demand of LACMs. P-value <0.05 was considered to show statistical significance.

Result: The demand for LACM was 650 (76.7%). Among demanded LACM, 305 (36%) meet need and 345 (40.7%) unmet need. The multivariate analysis showed that being married [AOR: 0.562(0.335, 0.941)], primigravida [AOR: 0.402(0.228, 0.709)], ever heard about LACM [AOR: 2.762(1.529, 4.991)], knowledge on LACM [AOR: 2.210(1.298, 3.763)], attitude [AOR: 15.755 (9.628, 25.782)], perceived good quality service at health facility [AOR: 4.219(2.781, 6.40)] were found predictors of the demand for LACM in this study.

Conclusion: the demand for LACM according to this study was high and the unmet need for LACM also high. Marital status, gravidity, information on LACM, knowledge on LACM, attitude on LACM and perceived quality of health facility service affect the demand for LACM in this study.

Recommendation: - Based on this study the demand and unmet need for LACM was found high so it is better to utilize the opportunity to provide the service to meet

CHAPTER ONE

INTRODUCTION

1. Background

Family planning is defined as the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility[1].

There are traditional methods of family planning, which get divided into withdrawal and rhythm; and there are modern family planning methods, which are divided into three: - Long acting reversible contraceptive methods (intra uterine contraceptive device& implants); permanent contraceptive methods (tubal ligation for female & vasectomy for male) and short term contraceptives methods (oral pill, inject-able, male & female condoms, foam tablet & cervical cap[2].

Intra uterine contraceptive devices (IUCDs) and implants are long-acting reversible contraceptive methods (LARCM); when removed, the return to fertility is prompt[3]. 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[4].

Globally, the IUCD is used by (22%) of all contraceptive users and the oral pill by (14%).The use of modern contraceptive method differs significantly between the developing and developed areas. In the developed areas, modern methods account for much larger share of total contraceptive use (90%) than in the developing areas (70%)[4].

The Ethiopian Ministry of Health (EMOH) has made a special attention and effort to the expansion of mixed method services for LAPCM aim provide of 20% of family planning with LAPCM[1].

The current use of any contraceptive, modern and traditional methods among married women in urban areas were more likely than their rural counterparts [5].

.1. Statement of the problem

Different reports indicate that the demand of long acting contraceptive method is low. The prevalence of long acting contraceptive methods use is 13% in the world and long acting contraceptive method use coverage is 2%, for Sub-Saharan Africa[6]. For Ethiopia, long acting contraceptive method use coverage is 3.7%[7]. The prevalence of implant in 2000, 2005 , 2011 and 2016 show (0, 0.3, 3, 8) respectively but still the trend show slow improvement [8].

Studies conducted in Jinka town, on Prevalence and factors affecting use of long acting and permanent contraceptive methods in Southern part of Ethiopia show that factors associated with LARCM use were age, knowledge [9].

And number of pregnancy, desire for more children, education, number of children, duration of family planning and discussion with husband, ever use of LARCM and side effect are factors associated with demand for LARCM, showed by study done on Community based in Butajira.

So, this study was intended to assess the demand of long acting contraceptive methods and its associated factors [10].

1.3 Significance of the study

Most of the studies have been conducted on met need of long acting contraceptive methods in the general population; however, there was limited number of research on unmet need and demand for long acting contraceptive methods among family planning users in Addis Ababa. Similarly, there was no published study conducted to assess the level of demand for long acting contraceptives methods and associated factors in Addis Ababa.

Therefore this study intends to explain the demand of long acting contraceptive methods and the determinants for such contraception use among the target clients, and recommend goal oriented, responsive and scientific intervention which may enhance ownership and commitment among all the concerned bodies to strengthen service utilization based on the level of influences that the findings could impose in the study.

The findings from this study will help policy makers and planners and other concerned organizations working in the area of family planning and maternal health to meet the demand of long acting contraceptive methods.

CHAPTER TWO

LITERATURE REVIEW

Ethiopia DHS 2016 assessed the states of long acting family planning methods in Addis Ababa current married women were 8.5% of IUCD and 14.1 % of implant. Also in this study those who met need for family planning are 55.9% and those unmet need are 10.5%. To reduce maternal mortality family planning is one of the methods in SDG plan. With those goals that the 1994 ICPD Cairo declaration has provided an international endorsement for addressing the sensitive issues of reproductive rights, sexuality, integration of adolescents, and helping individuals and couples to fulfill their reproductive health and reproductive intentions with an implementable framework for adopting a client-centered, holistic approach to reproductive health services. Also Ethiopia has been committed to set a strategy which could encompass a delegation to and task sharing with the lowest service delivery level possible, the provision of all FP methods, especially long-term and permanent methods, without compromising safety or quality of care targeting an inclusion of long-term FP service provision in the job-description of mid-level health workers by 2008[7, 8, 11].

Though the national reproductive health strategy document states policy priorities, established directive goals, design strategies to accomplish this goals and explicit targets; still the utilization of long acting family planning methods is at its lowest proportion by far in Addis Ababa. This critical observation is igniting a potential for the investigator to look into the magnitude of service utilization and the determinants that enhances or inhibits women to seek those recommended interventions[11].

2.1 Demand of long acting contraceptive methods

Based on the study done in North West Ethiopia, the utilization rate of long acting contraceptive method in the Debre Markos town was 9.2%. Of these, 8.2% were using Implanol and 1% intra uterine contraceptive device (IUCD). The high proportions of users were observed in the age group of 30-34 years and lower in the extreme age groups. Unmet need for long acting contraceptive methods was found to be 7.8%, among these, 4.5% for spacing and 3.3% for limiting. Among thirty eight women having unmet need, 57.9% wanted to delay pregnancy while 42.1% wanted to limit their number of children. Unmet need for long acting contraceptive methods was higher in the age group of 20-24 years and 45-49 years of mothers, so demand for long acting contraceptive methods

was 17%. This was the sum of current use of long acting contraceptive methods (met need) and the method desired but not used due to any reason (unmet need). Current long acting family planning users (met need) were 9.2% and unmet need were 7.8%, out of the total short acting contraceptive method users, 7.8% of the participants did not prefer to use short acting family planning methods. Among these, 89.5% of the respondent had intensions to use implant and 10.5% of the respondents had intensions to use IUCD [12].

Findings from a study done in South East Ethiopia revealed that the current utilization rate of LAFP of contraceptives that time was 8.72%. Of these 6.5% were using Norplant and 1.5% IUCD. Eighteen point five percent of the respondents had ever used LAFP. The methods ever used were 12.8% Norplant and 35.0% IUCD. Two hundred nineteen 29.8% were pregnant and 26.2% had five or more pregnancies. The utilization of LAFP of contraceptives varies with change in the age group of respondents. The highest frequency of use was observed in the age group 25–29 years of age. However, there was a decrease in use of LAFP as age of the women increase from 30–49 years. A study conducted in Mekelle revealed that the overall prevalence use of long acting contraceptive methods use was 12.3% and majority of women used implants 87% followed by IUCD 13% [13, 14].

The study done in North West Ethiopia in DebreMarkos Town, (19.5%) respondents were using LAFP, of which 36.7% were using Implanon, 45.5% were using Jadele and 17.8% were using IUD. 76.4% of users of implants or IUD wanted to continue their method up to the end and 23.6% of them wanted to remove before the actual date because of their need to be pregnant. The other study done in Arbaminch showed that only 13.1% of the respondents utilized long acting contraceptive methods. From those who visited health institutions, 64.84% was using family planning in the last six months. Among those who used contraceptives, 3.4% were IUCD users. Among those who visited health facility, 68.75% were facing problems due to the use of FP methods whereas, 31.25% did not [14, 15].

2.2 Factors Affecting Demand for Long Acting Contraceptive Methods

The study done in North West Ethiopia showed that occupational status was important predictor of demand for long acting contraceptive methods. Daily laborers had 3.87 times higher demand than house wives (AOR = 3.87, 95% CI = [1.06, 14.20]). Students had 2.64 times higher demand than house wives (AOR = 2.64, 95% CI = [1.27, 5.47]). Those mothers having future birth intensions had

higher 2.17 times higher demand than those respondents who did not have future birth intentions (AOR = 2.17, 95% CI = [1.12, 4.23]). Women who have five or more children had 1.67 times higher demand for long acting contraceptive methods compared to women who did not have children (AOR = 1.67, 95% CI = [1.58, 4.83]). Respondents who have more frequent discussions with their husbands or partners had 3.89 times higher demand than those who have discussion once or twice about long acting contraceptive methods (AOR = 3.89, 95% CI = [1.98, 7.65]). Respondents who were treated poorly by care providers had 0.42 times less demand for long acting contraceptive methods than those treated with respect and dignity (AOR = 0.42, 95% CI = [0.24, 0.74]). The other important predictor was main decision maker for using the methods, respondents who decided together with their husband had 2.73 times higher demand than those who decide by alone (AOR = 2.73, 95% CI = [1.40, 5.32])[16].

In Indonesia, women aged, 30-39, having 3-4 children, with educated women were more likely to use long-term contraceptive[17]. Similar to this, in Eastern Nigeria revealed that, high use of Norplant was seen among high parity women, age 30-34 years. Norplant users were significantly less educated in which less than one percent of Norplant users had tertiary education compared to 25% of IUCD users [18].

A study conducted in Malawi on women empowerment and the current use of long acting revealed that there is a higher proportion of LACM use among women who had heard about family planning program, which is 21.1% than those who did not 17.9%[19].

A study conducted on family planning service quality as determinant of use of IUCD in Egypt showed that nearly 40% of married women do not believe in practicing contraception and more than half believe that family size should be left up to God[20].

In Burkina Faso, a study showed that the percentage of women in reproductive age who use modern contraceptive was significantly higher among women in reproductive age who have discussed family planning with health professionals, 27.4% than those who have not 9.1% respectively. The proportion of married women who are currently using long acting contraception was more for those whose have supportive attitude on the use of family planning 21.8% as compared to 4.2% of married women whose have non supportive attitude[21].

A study conducted in Jinka and Butajira towns of Ethiopia documented that husbands disapproval, considering children as assets, fear of sterility, lack of knowledge, and religion disapproval and fear

of several side effects such as heavy period, slipping out during heavy work in the case of IUCD were some of factors associated with long acting contraceptive use[9, 10].

Study done in Goba town showed that ever use of LAFP was found to be a strong predictor of current use of LAFP, respondents who had ever used LAFP were more than seventeen times more likely to use LAFP than those who did not have ever used LAFP [AOR= 17.43, 95% CI:9.19, 33.03] and the number of times discussion on LAFP was made was also found to be predictor of using LAFP, respondents who discussed more often were more than four times more likely to use LAFP than those who have discussed once or twice about LAFP [AOR= 4.6, 95% CI:1.72, 12.17]. The intention to use LAFP in the future was found to be a predictor of unmet need for LAFP, respondents who were intending to use LAFP were found about four times more likely to have had unmet need for LAFP than those who did not intend to use [AOR=3.99, 95% CI:2.27, 7.02]. The other important predictor found was number of pregnancy, respondents who had five or more pregnancies were more than three times more likely to have unmet need than those who had not ever been pregnant [AOR= 3.67, 95% CI: 1.75, 7.71][13].

A study conducted in Mekelle showed that women who had moderate knowledge were 6 times more likely to use LAFP as compared with those who had low knowledge(AOR = 5.9, 95% CI: 2.3, 14.9). Mothers who had high knowledge were 8 times more likely to use LAFP as compared with those who had low knowledge (AOR = 7.8, 95% CI: 3.1, 18.3). Mothers with two or more pregnancies were 3 times more likely to use LAFP as compared with those who had been pregnant only once (AOR = 2.7, 95%: 1.4, 5.1). In another study age, desire for more child, duration of desire to have child, number of children ever born, ever heard of modern FP, ever use of modern FP, spousal discussion in the past 6 month about modern family planning, spousal discussion about which method to use and perception of partner's approval of permanent methods after completing family size were found to be determinants or long acting family planning demand[14].

The study done in Arba Minche level of education showed strong statistical association with LAFP utilization. Mothers with formal education were about 2 times (AOR=1. 9, 95%CL: [2.13-4.25]) more likely to utilize long acting contraceptives as compared to those who had not attended formal education also in this study, the odds of utilizing long acting contraceptive methods was 4 times higher for mothers who had functional radio or television in their home as compared to those who had none (AOR= 4, 95%CI:[1.23-5.12]). Who visited family planning service, 60.54% had

discussed with health care workers about the notion that family planning methods should be used, whereas 39.45% used without discussion. From those who discussed about FP methods, 54.8% were about Implanon, 41.9% were about IUCD and the remaining heard about other contraceptive methods. Concerning the choice of their husbands, 25.78% decided only by themselves whereas 74.22% were discussing with their partners to use contraceptives[15].

The study done in North West Ethiopia showed that about 86% of the respondents ever heard about long acting family planning methods. Major source of information about long acting contraceptive methods was from health care providers accounting 354 (72.7%). Four hundred nineteen (86%) of the respondents were able to identify the source of long acting contraceptives methods. [16].

Summary

High demand for LACM and low for unmet need are expected due to socio demographic, individual, predisposing factors and reproductive history of the mother, high service coverage and access and high information access, knowledge and positive attitude towards the method are also expected to affect the demand for LACM in Addis Ababa as compared to other part of the country.

Hypothesis

1. The unmet need for LACM in Addis Ababa is low due to high service coverage and access compared to other part of the country.
2. The demand for LACM is high in Addis Ababa compared to other part of the country due to high information access, knowledge and positive attitude towards the method.
3. The socio demographic, individual, predisposing factors and reproductive history of the mother have effect on demand for LACM.

2.4. Conceptual framework

As depicted in figure 1, Conceptual frame work has been developed from this paper after a rigorous review of the relevant literatures. As shown in the figure socio-demographic factors, individual behavioral factors, predisposing factors and reproductive history of the mother have a link with demand for long acting contraceptive methods.

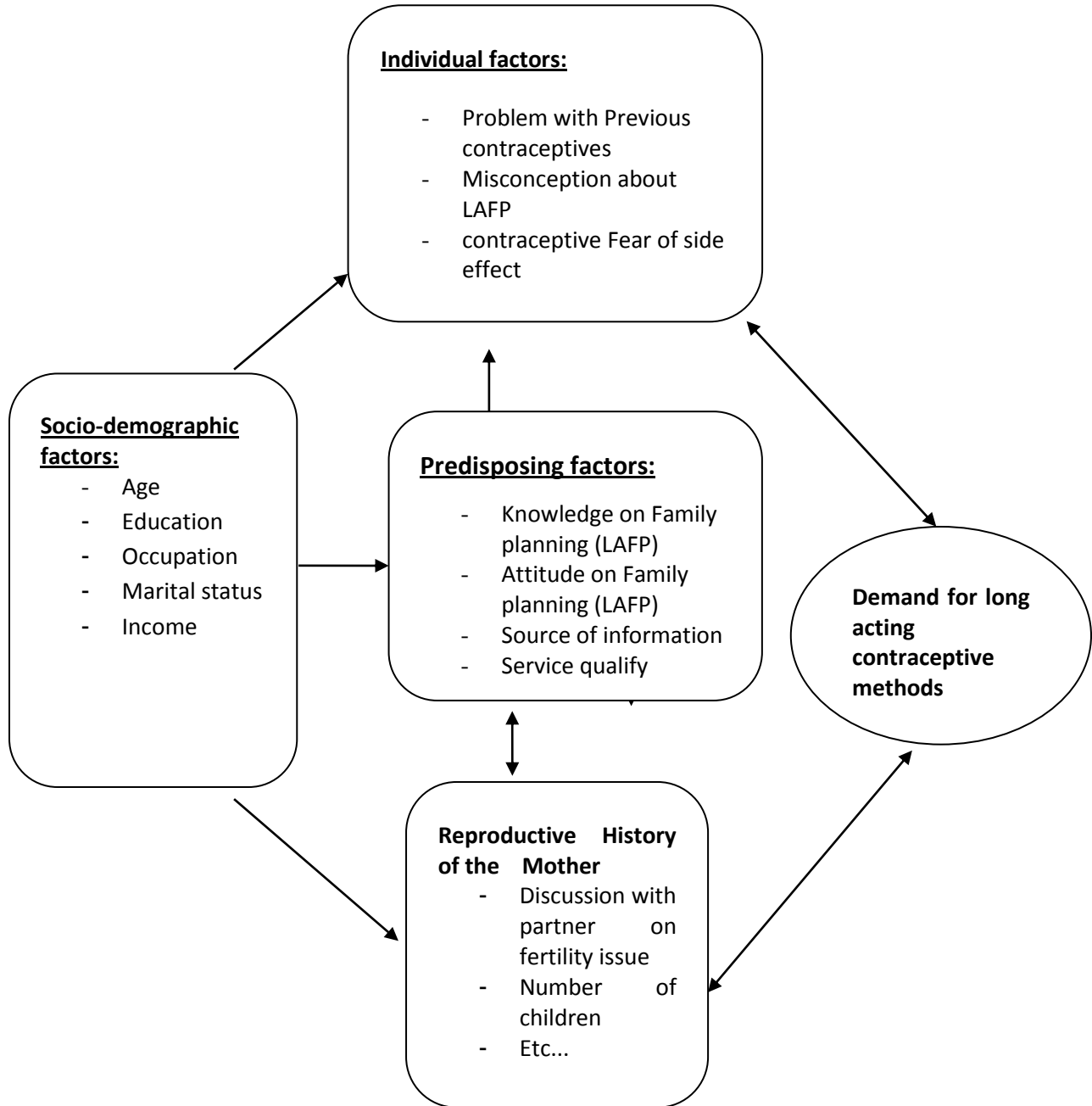


Figure 1: Conceptual Framework of factors affecting demand for long acting family planning among women who attend their family planning at selected public health facilities in Addis Ababa [9, 10, and 12].

Chapter Three

Study objective

3.1. General objective

To measure the demand for long acting contraceptive methods and associated factors among family planning service users in governmental health center(s), Addis Ababa, Ethiopia, 2017.

3.2. Specific objective

- To measure the demand for long acting contraceptive methods among family planning service users in governmental health centers, Addis Ababa, Ethiopia.
- To identify factors associated with the demand for long acting contraceptive reversible methods among family planning service users in governmental health centers, Addis Ababa, Ethiopia.

Chapter Four

Methods

4.1. Study area

The study was conducted in Addis Ababa (Ethiopia) government health centers. Addis Ababa (AA) is the capital city of Ethiopia. The area covers about 526.99km². According to projection from the 2007 census, it has a population of 3,384,569. However, the city has recent years seen a strong annual growth rate, and population counts according world population review of Nov, 2017 are growing closer to 4 million. The city has 10 sub cities and 117 woreda. Among those highly populated sub-cities are Kolfe Keranio, Yeka and Nifas Silk-Lafto respectively[22].

Majority of Ethiopian ethnic groups are represented in Addis Ababa due to its position as capital of the country, the largest groups include the Amhara (47.04%), Oromo (19.51%), Gurage (16.34%), Tigray (6.18%), Silt'e (2.94%), and Gamo (1.68%). The religion with the most believers in Addis Ababa is Ethiopian Orthodox with 74.7% of the population, while 16.2% are Muslim, 7.77% Protestant, and 0.48% Catholic. According to the Addis Ababa Health Bureau 2017 report, Addis Ababa has 11 public and 28 private hospitals, 96 health centers and 882 clinics under the federal administration. The hospitals and health centers give reproductive health services with different type's family planning, antenatal care, delivery and reproductive health services.

4.2. Study design and period

Facility based quantitative cross-sectional study was conducted from July/2017-October/2017. Even though this study started from December, 2016 but the real time for data collection was from July 1/2017- August 1/2017time.

4.3. Study population

4.4. Source population

All family planning service users at selected governmental health centers of Addis Ababa are the source population from which the study population was drawn.

4.5. Study population

Family planning service users who were selected with a systematic random sampling method from all family planning service users based on a calculated flow rate of service users interval was the study population in Addis Ababa governmental health centers.

Inclusion criteria

Family planning service users in age 15-49 years and those able to communicate were participated in the study.

Exclusion criteria

Those who are seriously ill and not volunteer to participate in the study were excluded from the study.

4.6. Sample size determination

The sample size calculation for first objective was determined using single population sample calculation formula. A estimate of 52.4% demand for long acting contraceptive methods was used from a previous study done in Debre Markos Town, North West Ethiopia[12] to calculate the sample size for the first specific objective. Using 5% marginal error and 95% confidence interval and power 80% the sample size was 384. Considering 10% non response rate was increase the sample size to **427**.

$$\begin{aligned} N &= \frac{(Z_{\alpha/2})^2 * p(1-p)}{D^2} \\ &= \frac{(1.96)^2 * (0.52) * (0.48)}{(0.05)^2} \\ &= 384, \end{aligned}$$

Considering 10% and 1.5 design effect & non response rate the sample size become **640**.

Second objective: To identify the factors associated with the demand for long acting contraceptive methods a double population proportion formula with odd ratio was used. The sample size was calculated using four major factors from the study done on demand for long acting contraceptive methods and associated factors among family planning users in Northwest Ethiopia[12].

$$n = \frac{(1+r)^2 [z_{\alpha/2} + z_{\beta}]^2}{r(\ln OR)^2 p(1-p)} \text{ Formula used from [12].}$$

Assuming that equal sample size drawn from each group of determinant factors groups i.e. $r=1$ and “p” is the prevalence of demand for long acting contraceptive method in the pooled population i.e. 52.4% from a study done in Debre Markos Town, North West Ethiopia[12], and the “OR” was the odds of demand for long acting contraception method between groups with different determinant factors and $Z_{\alpha/2}= 1.96$ at 95% level of significance, $Z_{\beta} = 0.84$ for 80% power of the test, the sample size for each group with different determinant group was calculated and compare with the single population formula, and the maximum sample output was taken to be the sample size for this study.

Table 1 Sample size for the second objective among women who atten family planning service at public health facility in Addis Ababa, 2017(n=848)

Factors	P	OR	Z_{β}	$Z_{\alpha/2}$	Ratio(r)	Sample size
Do not have future birth intention	52.4%	20.73	0.84	1.96	1	14
Desire to have next birth after 2 years	52.4%	6.4	0.84	1.96	1	36
Ever using modern family planning method	52.4%	1.89	0.84	1.96	1	310
Spouse discussion in the past 6 month	52.4%	1.64	0.84	1.96	1	514

By considering both the first and second objectives the maximum sample size is 514 from the second objective, to get the final sample size with adding the design effect multiply by 1.5 and multistage sampling methods $514*1.5=771$ and add 10% non response rate the sample size was 848. Since the output for objective two i.e. 848 is higher than the first specific objective i.e. 640 the sample size for this study was **848** respondent subjects.

4.7. Sampling procedure

Multi stage sampling procedures were employed to identify the study subjects. In the first stage the five sub-cities was randomly selected among ten sub-cities in the town. In the second stage two health centers was selected from each selected sub-city. Then the respondent subject was selected from selected health centers by using systematic random sampling based on the family planning service clients flow.

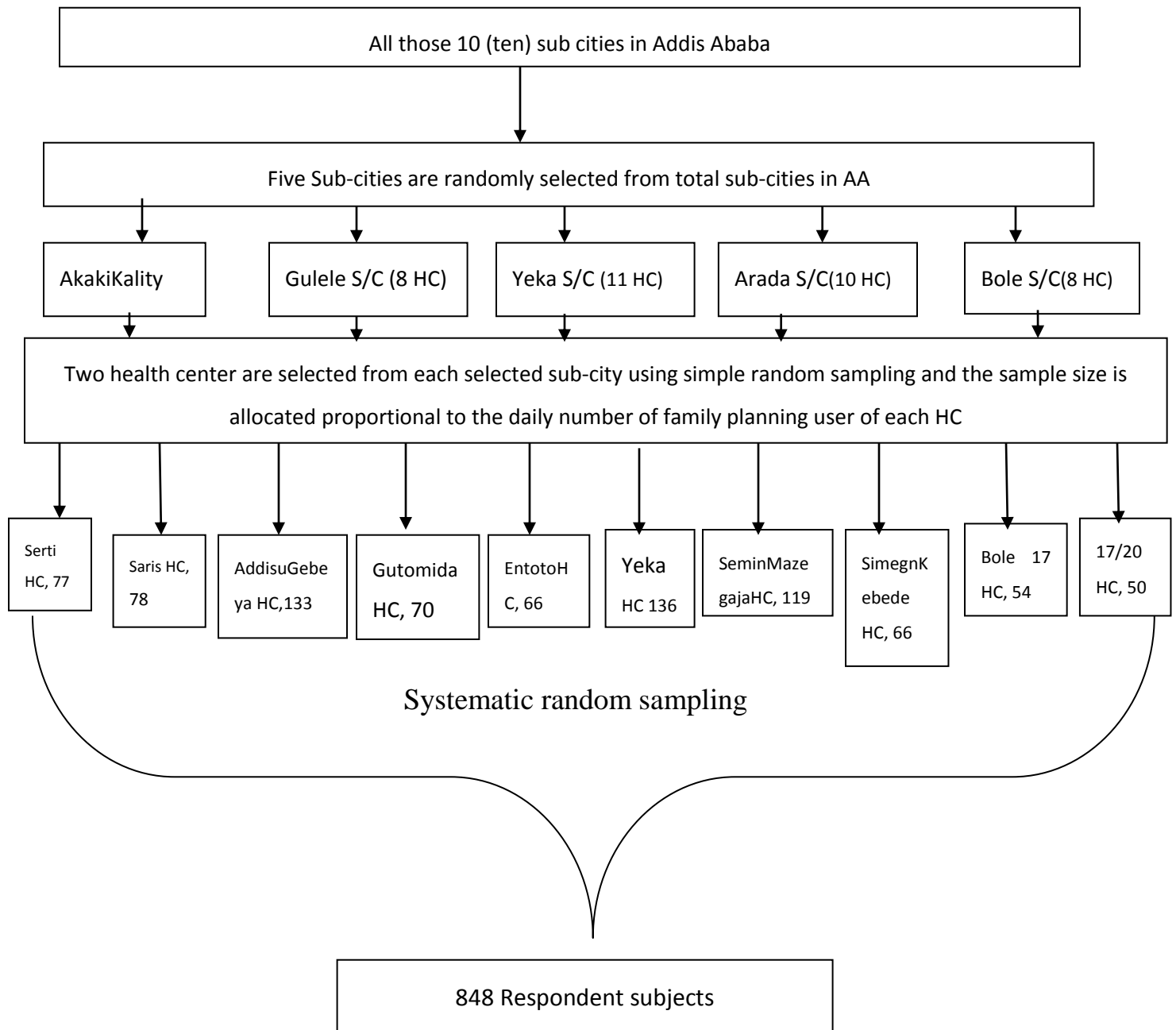


Figure 2: Sampling procedure of factors affecting demand for long acting family planning among women who attend their family planning at selected public health facilities in Addis Ababa.

Table- 2: Sampling distribution across selected governmental Health centers in AA

S/No	Name of health center	Name of sub-city	Average number of family planning service users in 1 month after seeing 3 months report	average number of family planning service users daily	Selected number of study subjects (proportional to monthly client follow of each HC)
1	17/20 HC	Bole S/C	230	8	50
2	Bole 17 HC	Bole S/C	247	9	54
3	Yeka HC	Yeka S/C	625	21	136
4	Entoto HC	Yeka S/C	305	11	66
5	Gutomida HC	Gulele S/C	320	11	70
6	AddisuGebeya HC	Gulele S/C	610	21	133
7	SeminMazegaja HC	Arada S/C	550	19	119
8	SimegnKebede HC	Arada S/C	302	11	66
9	Serti HC	AkakiKality S/C	354	12	77
10	Saris HC	AkakiKality S/C	360	12	78
Total			3,903	135	848

4.8. Data Collection Procedure

The data was collected using structured questionnaire. The questionnaire was developed using others similar studies. The questionnaire was developed originally in English language and translated to Amharic and retranslated to English to check for its consistency and the Amharic language questionnaire was used to collect data. The questionnaire has seven parts, on Part I Socio demographic, Part II reproductive history, Part III Source of information on LAFP, Part IV on Utilization of long acting family planning method, Part V Knowledge of LAFP methods, Part VI Attitude of LAFP methods and Part VII Service quality and inter-spousal communication.

To ensure its reliability pre-test was carried out on 5% (42) of the sample two weeks prior to the actual data collection time and excluded them from the actual study population.

Ethical clearance was taken from School of Health Science Ethical Review Board and Addis Ababa Health Bureau Ethical Review Committee. Permission letter was taken from each selected health centers to collect the data. Explaining about the objective of the study informed consent was taken from each respondent and data was collected. For data collection 6 trained clinical nurse professionals and 2 supervisors who have degree in public health and they are not working in the study area.

4.9. Study variable

Dependent variable

- Demand for long acting family planning

Independent variables

- Socio demographic characteristics of clients
- Knowledge of clients about long acting family planning method
- Attitude of clients regarding family planning methods
- Reproductive history of clients
- Source of information

These independent variables were selected because different previous studies show association with the dependent variable i.e. demand for long acting family planning.

4.10. Operation definition

Long acting contraceptive methods: - In this study long acting contraceptives methods define only Intra-Uterine contraceptive Device (IUCD) and Implanol.

Demand for long acting contraceptives:-It's the combination of proportion of women who use long acting contraceptive methods (met need) and proportion of women who use any other short acting contraceptive methods but want to use long acting contraceptive methods (unmet need).

Unmet need for long acting contraceptive methods: - Women who desired to use Implanol or IUCD for spacing or limit pregnancy but did not use the methods due to any reason.

Met need for long acting contraceptive methods: - Women who use Implanol or IUCD.

Knowledge of long acting contraceptive methods: - According to this study if a woman mentions one of the long acting contraceptive methods consider that she has knowledge of long acting contraceptive methods.

Positive attitude of long acting contraceptive methods: - according to this study a positive attitude on long acting contraceptive methods was considered if a women score above mean score on attitude measure on long acting contraception method questions.

Public Health Centers: health centers those directly administered by government body with long acting contraceptive methods.

4.11. Data quality assurance and management

Pre-tested for questionnaire was done to check its consistency. The data collectors and supervisors were trained properly on the data collection process. During the data collection period every day the questionnaires were reviewed and checked for completeness by supervisors and every other day by the principal investigator and all the necessary feedback was provided. After the data collection the data was managed using Epi-data version 3.1 for data entry and SPSS version 20 for data clearing and analysis.

4.12. Measurement, Data processing and analysis

The quantitative data was collected, cleaned and entered using Epi-Data Version 3.1 and analyzed using Statistical Package for Social Science (SPSS) version 20. The study participant's attitude was measured as supportive and non supportive attitude. For the attitude measurement agree, disagree and not sure (those have no attitude towards the methods was used with attitude questions considered and those that have scored above mean was grouped as supportive attitude and mean or below mean was grouped as non supportive attitude. Women's knowledge was measured by the total number of correct answers to knowledge questions. Measure of knowledge was categorized based on the answer true, false and not sure (have no knowledge towards the methods). Descriptive statistics and logistic regression analysis was used to determine the effect of factor(s) on the outcome variables and to control possible confounder's and P-value <0.05 was considered to show statistical significance. Odds ratio (OR) from logistic regression was used to identify their association with demand of long acting contraceptive methods

4.13. Ethical consideration

The ethical clearance was taken from Addis Ababa University ethical approving board and Addis Ababa Health Bureau Ethical Review Committee prior to the study and permission letters from each health center was taken. Informed consent from each respondent was taken. The privacy of the respondent was kept by interviewing separately not in a condition to be heard by others about their private matters. Information of respondent in the research was not given to anyone else without the prior permission from the respondent if required was ensured. The rights of the respondent not to participate in the research were respected and written consent was taken to take information. Respondents were granted from any risk as of this research participation but may not benefit directly, but the information gathered is helpful to improve the family planning service provision by encouraging demand responsive program to be designed by government and any stakeholders was explained. For any problem and doubt that the respondents may inquire the, address of the ethical review committee and principal investigators were provided.

4.14. Dissemination of the result

The result of the study will be present to Addis Ababa University School of Public Health. Copies of the study will be submit to the Federal Ministry of Health, reproductive health division, Addis Ababa regional health bureau, study health centers. Attempts will be made to disseminate the findings through publication on international journals and present on scientific conferences.

CHAPTER FIVE

RESULT AND DISCUSSION

5. RESULT

5.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT

A total of 848 family planning users have participated in this study with response rate of 100%. The mean age of the women was 28.79 and $SD \pm 5.85$ years. Similarly the majority of 561 (66.2%) of participants were also married. Regarding school enrolment; the majority 273 (32.3%) of the respondents had elementary education, followed by 228 (26.9%) with a secondary level of education and the other 347 (40.8%) had some diploma or higher education level. Regarding the occupation status of respondents about 306 (36.1%), were engaged in private business and the rest were government and non-government employees.

Table3: Socio-démographic characteristics of répondent among women who attend family planning service at Public health facilities in Addis Ababa (2017) (n=848)

Socio-demographic characteristics	Options	Frequency	Percent
Age	15-24	156	18.4
	25-34	603	71.1
	35-49	89	10.5
Marital status	Single	83	9.8
	Married	561	66.2
	Divorced, Widowed and Separate	34	4.0
	Cohabiting	170	20.0
Education level	No formal education	76	9.0
	Elementary	273	32.2
	Secondary	228	26.9
	Diploma	199	23.5
	Degree	72	8.5
Occupation	Government employee	183	21.6
	Non-government employee	18	2.1
	Private business	306	36.1
	Housewife	117	13.8
	Daily laborer	106	12.5
	Unemployed	118	13.9

5.2. REPRODUCTIVE HISTORY OF THE MOTHER

Regarding the reproductive history of mother; the minimum age at first marriage was 17 years and maximum was 35 years. Similarly the minimum age at first birth of mothers was 18 years and the maximum was 36 years. Among mothers interviewed, (549, 64.7%) ever gave birth.

Table 4: Reproductive histories of respondent among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)			
Maternal related variables	Option	Frequency	Percent
Ever gave birth	Yes	549	64.7
	No	299	35.3
Number of births	No birth	299	35.3
	1	169	19.9
	>=2	380	44.8
Number of alive children	No alive	194	22.9
	1	299	35.3
	>=2	355	41.8

5.3. INFORMATION & SOURCE ON FAMILY PLANNING METHODS

Regarding the information on contraceptive method majority (78.7%) of the respondent heard about LACM and (37.0%, 38.40%) mothers have heard about implant and IUCD respectively. Majority (28.8%) of the respondent heard information from health professionals.

Variables	Option	Frequency	Percent
Ever heard about long acting contraceptive method	Yes	667	78.7
	No	181	21.3
Source of information	Neighbors or relatives	44	5.2
	Husband	108	12.7
	Health professionals	244	28.8
	Mass media	215	25.4
	School	237	27.9
Mass media message on long acting contraceptive method	Yes	666	78.5
	No	182	21.5
Implant mentioned	Yes	314	47.1
	No	352	52.9
IUCD mentioned	Yes	326	48.9
	No	340	51.1
Other method mentioned	Yes	460	69.1
	No	260	30.9

5.4. Knowledge of respondents on family planning

Regarding the knowledge of women on IUCD method knows that it prevent pregnancy, it does not prevents STI and it does not interfere sexual intercourse (54.5%, 21.3%, 30.5%) respectively. Similarly knowledge of women on implant knows that it prevent pregnancy, it does not interfere sexual intercourse and pregnancy reverse quickly when implant removed (50.2%, 33.3% and 50.1%) respectively.

Knowledge Variables	Options	Frequency	Percent
IUCD prevent pregnancy	True	462	54.5
	False	5	0.6
	Not sure	381	44.9
IUCD prevent STI	True	6	0.7
	False	181	21.3
	Not sure	661	77.9
IUCD interferes with sexual intercourse or desire	True	10	1.2
	False	259	30.5
	Not sure	579	68.3
Implant prevent pregnancy	True	426	50.2
	False	11	1.3
	Not sure	411	48.5
Implant interferes with sexual intercourse or desire	True	7	0.8
	False	282	33.3
	Not sure	559	65.9
Implant reverse pregnancy quickly when removed	True	425	50.1
	False	9	1.1
	Not sure	414	48.8
Composite score of Knowledge on LACM	Good Knowledge	471	55.5
	Poor Knowledge	377	44.5

5.5. ATTITUDE OF RESPONDENT FOR LACM

In general, about (54.0%, 46.0%) of respondents have positive and negative attitude towards the methods respectively.

Table 7: Attitude of respondents on LACM among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)			
Attitude Variables	Options	Frequency	Percent
Implant cause irregular menses and painful	Agree	130	15.3
	Not sure	669	78.9
	Disagree	48	5.7
IUCD insertion cause loss of privacy	Agree	148	17.5
	Not sure	674	79.5
	Disagree	26	3.1
IUCD restrict normal activity	Agree	359	42.3
	Not sure	484	57.1
	Disagree	5	0.6
Long acting method more safe and effective than short acting	Agree	218	25.7
	Not sure	573	67.6
	Disagree	57	6.7
Recommend long acting method to others	Agree	108	12.7
	not sure	578	68.2
	Disagree	162	19.1
Cosite Attitude score of respondent on LACM	Positive Attitude	458	54.0
	Negative Attitude	390	46.0

5.6. DEMANED AND UTILIZATION OF LACM

The current utilization proportion of LACM in the town was 305 (36.0%). Demand for LACM in the study was 605 (76.7%). This was the sum of current use of LACM (met need) and the method desired but not used due to any reason (unmet need). Current long acting family planning users (met need) were 305 (36.0%) and unmet need were 345 (40.7%).

Table 8: Demand and utilization of LACM among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)

Variables	Options	Frequency	Percent
Utilization of LACM(Either Implant or IUCD)	Utilize	305	36.0
	Not utilize	543	64.0
Demanded LACM(Either IUCD or Implant)	Demanded	650	76.7
	Not Demanded	198	23.3
Status of Demand Meet	Meet Need	305	36.0
	Unmet Need	345	40.7
	Not Demanded	198	23.3
Ever used implant	Yes	144	17.1
	No	704	82.9
Ever used IUCD	Yes	161	19.0
	No	687	81.0
Ever used any family planning	Yes	557	65.7
	No	291	34.3
Those get information about family planning method	Yes	430	50.7
	No	418	49.3
Current method used is by choice	Yes	647	76.3
	No	201	23.7
Need to take IUCD and implants	Yes	618	72.9
	No	229	27.0

Table 9: Reasons mentioned by respondents for not utilizing LACM among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)

Variables	Frequency	Percent
Comfortable with the current methods	40	23.5
Comfortable with Depo	37	22.7
Comfortable with Pills	28	1.7
Difficult with my work	18	11.0
I am not interested on it	13	8.1
I am not ready	2	1.2
I do not have trust on it	12	7.4
I have a plan to have a baby	1	0.6
I am affred	1	0.6
Lack of awareness	1	0.6
Make infertile	2	1.2
My husband not allowed to use it	4	2.5
Not comfortable with my health	4	2.5

5.7. PERCEIVED SERVICE QUALITY IN HEALTH FACILITY

The results showed that during provision of the services, 405 (57.2% and 702 (82.5%) clients were received important information about service and treated with respect and dignity by the care providers respectively. More than half 444(52.4%) of the respondents believed that the providers

will keep their information confidential. Only 366 (43.2%) of the participants responded that discussion with their partner approved to use of long acting contraceptive methods.

Variables	Options	Frequency	Percent
Those who got information about service	Yes	485	57.2
	No	363	42.8
Getting of friendly service	Yes	702	82.8
	No	118	13.9
	Not sure	28	3.3
Treated with respect and dignity	Yes	700	82.5
	No	112	13.2
	Not sure	36	4.2
Confidentiality of service	Yes	444	52.4
	No	100	11.8
	Not sure	304	35.8
Reasonable waiting time	Yes	430	50.7
	No	151	17.8
	Not sure	267	31.5
Discussion with partner	Yes	366	43.2
	No	475	56.0
	Not sure	7	0.8
Composite score on Perceived Quality of service at Health Facility	Perceived good	586	69.1
	Perceived Poor	262	30.9

5.8. BIVARIATE ANALYSIS

The bivariate analysis was done to identify factors affecting demand for LACM by considering factors those shows association on other similar studies and potential association with the dependent variable in this study. The results of the bivariate analysis shows that age category from 15-24 [COR: 0.446(0.245, 0.814)], occupation being government employee [COR: 2.32(1.35, 4.02)], those who were married [COR: 1.90 (1.38, 2.64)], being nuligravid [COR: 0.41(0.28, 0.60)] and primigravida [COR: 0.51(0.33, 0.80)], those who have ever heard about LACM [COR: 2.62(1.83, 3.76)], have good knowledge on LACM [COR: 1.74(1.26, 2.40)]; have positive attitude to LACM [COR: 8.0(5.40, 11.83)]; perceived good quality of service at health facility [COR: 3.75(2.69, 5.23)] and those who discussed on family planning with their partner [COR: 2.33(1.68, 3.24)] significantly associated with demand for LACM. Also secondary level of education [COR: 0.523(0.274, 0.999)] compared with degree level of education associated with demand for LACM, house wife [COR: 2.17(1.18, 3.99)] and those who ever give birth [COR: 1.47(1.05, 2.05)] show significant association with demand for LACM.

Table 11: Bivariate analysis for factors affecting demand for long acting family planning among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)

Variables	Options	p-value	COR	95% CI for COR	
				Lower	Upper
Age	15-24	.009**	.446	.245	.814
	25-34	.750	1.093	.633	1.884
	35-49				
Education level	No formal education	0.302	1.593	.658	3.860
	Elementary	0.511	.805	.421	1.538
	Secondary	0.050*	.523	.274	.999
	Diploma	0.978	.990	.501	1.956
	Degree				
Occupation	Government employee	.002**	2.329	1.349	4.021
	NGO employee	0.397	1.662	.513	5.391
	Privet business	0.166	1.388	.873	2.208
	Housewife	0.013*	2.171	1.180	3.996
	Daily laborer	0.205	1.462	.812	2.629
	Unemployed				
Ever give birth	Yes	0.022*	1.474	1.058	2.053
	No				
Married	Yes	0.000**	1.909	1.380	2.640
	No				
Number of Birth Category	Nuli gravid	0.000**	.415	.287	.601
	Primigravida	0.003**	.517	.333	.801
	Multigravida				
Ever heard about LACM	Yes	0.000**	2.626	1.834	3.761
	No				
Knowledge	Good knowledge	0.001**	1.746	1.267	2.406
	Poor knowledge				
Attitude	Positive attitude	0.000**	8.000	5.406	11.838
	Negative attitude				
Perceived Quality of service at Health Facility	Perceived good	0.000**	3.755	2.692	5.237
	Perceived poor				
Discussion with partner on LACM	Yes	0.000**	2.337	1.684	3.243
	No				

*significant at 0.05 level, ** significant at 0.01 level

5.9 MULTIVARIABLE ANALYSIS

In the bivariate analysis variables those shows association at 0.05 level of significance was transferred in to multivariable analysis to control confounding variables and test the association of each variable with the dependent variable. Based on the result of multivariable analysis shows respondents those who were married [AOR: 0.562(0.335, 0.941)], primigravida[AOR:0.402(0.228, 0.709)], have ever heard about LACM [AOR: 2.762(1.529, 4.991)], have good knowledge on LACM [AOR: 2.210(1.298, 3.763)], have positive attitude towards the methods [AOR: 15.755 (9.628, 25.782)], perceived good quality service at health facility [AOR: 4.219(2.781, 6.40)] had significant associate with demand for LACM.

Table 12: Multivariable analysis for factors associated with LACM among women who attend family planning service at public health facilities in Addis Ababa, 2017(n=848)

Variables	Options	p-value	COR with 95% CI	AOR with 95% CI
Age	15-24	0.077	0.446(0.245, 0.814)	.436(0.174, 1.094)
	25-34	0.462	1.093(0.633, 1.884)	1.297(0.648, 2.594)
	35-49		1	
Education level	None	0.418	1.593(0.658, 3.86)	1.675(0.481, 5.830)
	Elementary	0.979	0.805(0.421, 1.538)	0.987(0.372, 2.620)
	Secondary	0.629	0.523(0.274, 0.999)	0.788(0.300, 2.071)
	Diploma	0.767	0.99(0.501, 1.956)	1.133(0.495, 2.597)
	Degree		1	
Occupation	Gov.t employee	0.202	2.329(1.349, 4.021)	0.525(0.196, 1.411)
	NGO employee	0.464	1.662(0.513, 5.391)	0.557(0.116,2.675)
	Privet business	0.18	1.388(0.873, 2.208)	0.604(0.290,1.261)
	Housewife	0.721	2.171(1.18, 3.996)	0.844(0.332, 2.147)
	Daily laborer	0.061	1.462(0.812, 2.629)	0.441(0.188, 1.037)
	Unemployed		1	
Ever give birth	Yes	0.503	1.474(1.058, 2.053)	0.366(0.019, 6.958)
	No		1	
Married	Yes	0.029	1.909(1.38, 2.64)	0.562(0.335, 0.941)
	No		1	
Number of Birth Category	Nuli gravida	0.244	0.415(0.287, 0.601)	0.171(0.009, 3.339)
	Primigravida	0.002	0.517(0.333,0.801)	0.402(0.228, 0.709)
	Multigravida		1	
Ever heard about LACM	Yes	0.001	2.626(1.834, 3.761)	2.762(1.529, 4.991)
	No		1	
Knowledge	Good	0.003	1.746(1.267, 2.406)	2.210(1.298, 3.763)
	Poor		1	
Attitude	Positive	0.000	8(5.406, 11.838)	15.755(9.628, 25.782)
	Negative		1	
Perceived Quality of service at Health Facility	Good	0.000	3.755(2.692, 5.237)	4.219(2.781, 6.40)
	Poor		1	
Discussion with partner on LACM	Yes	0.898	2.337(1.684, 3.243)	1.029(0.664, 1.595)
	No		1	

CHAPTER SIX

DISCUSSION

Regarding the age, marital and educational statuses of the respondent majority were age between 25-34 years (71.1%), married (66.2%) and elementary level of education (82.7%).

In this study the utilization of LACM was found 36%. This was found higher than an institutional based cross-sectional study done at Jimma Town that revealed 22.9% of women who attended LACM[23].

According to this study the demand of LACM was found 76.7% among women who attend family planning service in public health facilities in Addis Ababa. Among women demanded LACM 36% of them meet their need but 40.7% unmet need and the rest do not need LACM at all. This finding was higher than a health facility based cross-sectional study done at Debre Tabor Town at Northwest Ethiopia that showed the demand for LACM was 17% [16]. This might be because of the high information access and relatively higher level of education and better awareness on the LACM options and also it might be because of the relatively high access for the service. This study also show higher on total demand and unmet demand for LACM compared to another cross-sectional study done at Debre Markos Town that revealed total demand was 52.4% and unmet need was 32.9% from the total demand[12].

The assessment on attitude of women for LACM concerning to cause irregular menses and pain during insertion, privacy during insertion, restrict normal activity, believe on long acting method more safe and effective than short acting and recommend ability of the method to others composite score show 54% have positive attitude. This study higher when compared with a study done in Mekelle Town, Tigray region, North Ethiopia among married women of reproductive age that revealed 45% of the respondent have positive attitude to LACM[14]. It was also higher when compared with a study done at Jinka Southern Ethiopia that show 43.5% of the respondents have positive attitude towards the methods LACM[9].

The composite score of perceived quality of health service on recipient of important information about service, getting friendly service, treated with respect and dignity, confidentiality of service maintained, waiting time reasonability show 69.1% perceived the service is quality and satisfied by the service.

In this study 55.5% of the respondents' were have good knowledge on IUCD that prevent pregnancy, STI and reverse pregnancy quickly when removed and 44.5% were have poor knowledge. This was lower when compared to a study done at Jinka Town, Southern Ethiopia show 53% of participants were have knowledge about IUCD due to many factors and misconceptions that hinder use of long acting contraceptive methods such as husband disapproval, considering children as assets, fear of sterility lack of knowledge, cultural and religion disapproval and fear of several side effects such as heavy period, slipping out during heavy work in the case of intra uterine contraceptive device[10].

Information on family planning has been assessed and found 37% who use Implant and 38.4% those who use IUCD heard about long acting family planning method. Seventy eight percent of participants heard information from mass media.

In this study women who were married 0.56 times less likely to have demand for LACM [AOR: 0.562(0.335, 0.941)], than single women. This was found consistent with a study done among Women of Reproductive Age Group in Shire Indaselassie Town, Northern Ethiopia, 2011 show that married and widowed women were 0.17-0.13 times less likely to prefer Norplant, [AOR = 0.17, 95% CI (0.07, 0.47), 0.13 (0.038, 0.473)], than single women[24].

A health facility based cross sectional study done in Northwest Ethiopia on Demand for long acting contraceptive methods and associated factors among family planning service users show demand for LACMs was positively associated with being a daily labour (AOR = 3.87, 95% CI = [1.06, 14.20]), being a student (AOR = 2.64, 95% CI = [1.27, 5.47]), no future birth intentions (AOR = 2.17, 95% CI = [1.12, 4.23]), having five or more children (AOR = 1.67, 95% CI = [1.58, 4.83]), deciding together with husbands for using the methods (AOR = 2.73, 95% CI = [1.40, 5.32]) and often having discussion with husband (AOR = 3.89, 95% CI = [1.98, 7.65]). Clients treated poorly by the health care providers during taking the services was negatively associated with demand for LACMs (AOR = 0.42, 95% CI = [0.24, 0.74])[25].

A study done at Goba Town, Bale Zone, South East Ethiopia show the use of LAPMs was significantly associated with ever use of LACM [AOR: 17.43, (9.19, 33.03)], number of times discussions made on methods [AOR: 4.6, (1.72,12.17)] and main decider of using methods [AOR: 2.2, (1.03, 4.65)]. It was not associated with socio-demographic variables[13].

In this study the result of the multivariable analysis identified predictors of demand for LACM being married [AOR: 0.56(0.335, 0.941)], primigravida [AOR: 0.402(0.228, 0.709)], ever heard about LACM [AOR: 2.762(1.529, 4.991)], have good knowledge on LACM [AOR: 2.210(1.298, 3.763)], have positive attitude for LACM [AOR: 15.755 (9.628, 25.782)], perceived good quality service at health facility [AOR: 4.219(2.781, 6.40)] associated with demand for LACM.

Respondents who had secondary school education and above were more likely to utilize LAPMs compared to those who had primary school education and below [AOR :1.72,95%CI 1.02 - (3.05'[>]95%CI = 1.02 - 3.05)] and a study done at Bahir Dar city North west Ethiopia that show The odds of demand for LACMs among the respondents who were in elementary educational level were two times [AOR = 2.31, 95 % CI: 1.34, 3.99] more likely as compared to those who had no formal education[26, 27].

A health facility based cross sectional study done at Northwest Ethiopia among family planning service users show Demand for LACMs was positively associated with being a daily labour (AOR = 3.87, 95% CI = [1.06, 14.20]), being a student (AOR = 2.64, 95% CI = [1.27, 5.47]), deciding together with husbands for using the methods (AOR = 2.73, 95% CI = [1.40, 5.32]) and often having discussion with husband (AOR = 3.89, 95% CI = [1.98, 7.65]). Clients treated poorly by the health care providers during taking the services was negatively associated with demand for LACMs (AOR = 0.42, 95% CI = [0.24, 0.74])[25].

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATION

CONCLUSION

- Demand of LACM was found high (76.7%) among women in Addis Ababa who attended family planning service in public health facilities.
- Also the unmet need was found higher (40.7%) as compared with the study done at Debre Markos (32.9%) and Debre Tabor Towns (7.8%).
- Regarding age, educational level, occupation, status of ever give birth, marital status, gravidity status, information on LACM, knowledge on LACM, attitude on LACM, perceived quality of health service and discussion with partner on family planning show association with demand for LACM by the bivariate analysis.
- But according to this study the predictors of demand for LACM are married, primigvida, ever heard about LACM, good knowledge on LACM, positive attitude and perceived good quality service at health facility.

RECOMMENDATION

To Addis Ababa Health Bureau

- Demand and unmet need for LACM was found high so it is better to utilize the opportunity to provide the service to meet the need.
- Respondents who have ever information on LACM were found high demand for LACM compared to those who have no information on LACM so it is better promote the information on LACM and disseminate the information using mass media, health professionals and other communication channels.
- Having good knowledge on LACM were more likely to have demand for LACM so the information should have to be catering to the knowledge improvement of the community on importance of LACM, side effect, limitation etc
- Having positive attitude for LACM also show high demand for LACM compared to those who have negative attitude so it is better to address the attitude of community on birth control effect of LACM, as it has less side effect compared to others, and give information clearly to the community.
- Having positive perceived quality on the service of the health facility show high demand for LACM compared to those who have negative perceived quality of health services. So it is better to promote the client management and improve client satisfaction for the positive acceptance of the service on LACM by the community

To Research Institutes and researchers

- ❖ The effect of client satisfaction on demand and utilization of LACM do not assessed in these study rather the perceived quality of the service provision have been assessed, so it is recommendable to study the effect of client satisfaction on general service provision of the facility on demand for LACM in the other researches on the topic

Limitation of the study

- ✚ Since the study was facility based and conducted only in the Addis Ababa town among only family planning service users, it might undermine generalizing the result to the majority general population including rural community and none users.
- ✚ The study design is cross sectional; therefore it may be difficult to establish temporal relationship.
- ✚ This study was conducted among only family planning service users in the government facilities; it may not representative to general population.

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Annexes

Annex I. Information and informed consent, in English and Amharic

Introduction

My name is _____. I am working with Bahrnesh Debella who is doing a research for the partial fulfillment of Masters Degree in public health at Addis Ababa University and you are selected to be one of the Participants in the study.

Study title: Demand for long acting contraceptive methods and associated factors among family planning service users in government health centers, Addis Ababa, Ethiopia.

Purpose: Purpose of the project is to identify the gap and for the fulfillment of master degree in public health. The information you provide here will be very helpful to the investigator of this study to write a research paper for the requirement in completion of master's program. The findings of this project could help in designing priority intervention strategies for better implementation of long-acting contraceptives that enables to meet much more planed fertility of couples.

Duration of the Study: From March 10 to April 10/2017 GC

Procedures: There are questions; that I would like to ask you to give your genuine and honest answers on the questions forwarded. If you need clarification please ask me. It will take you about 15 minutes to finish this survey.

Benefits and Risks: By participating in this study and answering our questions, you will not receive any direct benefit. However, the information will help the researcher to understand the gap in order to appropriately identify future interventions related to problem to be found. Your participation in this study will not involve any risks. If a question makes you feel uncomfortable, you may choose not to answer.

Confidentiality: You will not be asked to write your name on the survey questions. All the information you give us will be kept private. Whatever information you provide will be kept strictly confidential. The information you give us will be kept in a locked file cabinet. Only the researcher will have access to see the answers you give. No information identifying you will ever be released to anyone outside of this data collection activity.

Participation: Participation in the survey is completely voluntary. If you are not comfortable in answering any question(s), you can leave it blank. You can stop filling out the questionnaire at any time without giving a reason and your relationship with the community or any other body will not be affected in any way. If you would like to know more, please contact:

Address of the Principal Investigators Name Bahrnesh Debella Feyissa, 091-1570814

IDR (Tel No AAU- 251-11-553873)

I thank you in advance for taking your time to answer questions.

Would you be willing to participate in the study?

If yes, I am in advance to ask you.

If no, please stop here

Consent of the participant: I the undersigned have been informed the purpose of this research project. Based on the above information I agree to participate in the research voluntarily.

Signature of Participant -----

Date-----

ተሳትፎ፡- በዚህ ጥናት ሊይ መሳተፍ/አለመሳተፍ/

ሙሉ በሙሉ በርስዎ ፈቃደኝነት ሊይ የተመሰረተ ነው። ለጥያቄዎቹ በሙሉ ምህንበክፊሌ መሌስ ያለ መስጠት መብት አለዎት። ይህ ደግሞ ማንኛውንም አይነት ግሌ ጋልት ከማግኘት አያግደዎትም። እንዲሁም በፈለጉት ሰዓት ማንኛውንም መብት ሆን ሳያጠየቅ ለጥሙሉ መብት አለዎት። የበለጠ መረጃ ካስፈለገት የሚከተለውን አዴራሻ መጠቀም ይችላሉ

ጥናቱን የሚያካሂደው ሰው አዴራሻ፡ ባህር ነሽደ በላስ. ቁ 0911570814

በአዲስ አበባ ዩኒቨርሲቲ የጤና አጠባበቅ ሳይንስ ኮሌጅ

ስሌክ፡ 251-11-553873

የቃለ መጠይቅ ተስማምተዋል አዎ ከሆነ ጥያቄውን ይቀጥሉ፡--

አሌ ተስማማሁም ከሆነ በዚህ እናቆማለን

የተሳታፊ ዋና ባለሙያነት ስም፡- እኔ ከዚህ በታች ፊርማዬን ያስቀመጥኩት ግለሰብ የዚህ ጥናት ላይ ማተገቢያ ተያይዞ ስለሆነ፡፡ ከሊይ

በተገለጹ ማስረጃ መሰረት ምንም ጥናቱ ለመሳተፍ ተስማምቻለሁ፡፡

የተሳታፊ ፊርማ----- ቀን-----

ለትብብርዎት እና መሰግናለን፡፡

ቃለ መጠይቅ ተስማምተዋል አዎ ከሆነ-----ፊርማ-----ቀን-----

ቃለ መጠይቅ የተጀመረበት ጊዜ ----- ቃለ መጠይቅ የተጠናቀቀበት ጊዜ-----

ያረጋገጠው ሰው ፊርማ -----ፊርማ -----ቀን-----

Annex II: English and Amharic questionnaire

English questionnaire on demand of long acting contraceptive method and its associated factors among government health centers service users.

Kebele ----- Interviewer No. -----Interviewee No. -----
 Woreda/Town----- Date of interview-----

Part I. Socio demographic characteristics among study participants

Code	Questions	Possible responses	Skip
101	How old are you? Age at interview in completed year	1. 15-24 2. 25-34 3. 35-49 4. I don't remember	
102	What is your marital status?	1. Single 2. Married 3. Widowed 4. Divorced 5. Separate 6. Cohabiting	
103	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 99.Others_____	
104	What is the level of school you have completed?	1. No formal education 2. Elementary(1-8) 3. Secondary(9-12)	

		4. Diploma (level I-V) 5. Higher education (BSC and above)	
105	What is your occupation?	1. Government employee 2. Non- government employee 3. Privet business 4. Housewife 5. Daily labourer 6. Unemployed	

Part II: Reproductive history of study participants

Code	Questions	Possible responses	Skip
201	Are you married?	1. Yes 2. No	If your answer is NO skip to question 304
202	If yes what was your age at first marriage?		
203	Have you ever given birth?	1. Yes 2. No	If your answer is NO skip to question 304
204	If your answer is yes, what was your age at 1st birth?		
205	How many births have you given?		
206	How many of them are alive?		

Part III: Source of information on modern and long acting reversible contraceptive methods of study participants.

Code	Questions	Possible responses	Skip												
301	Have you ever heard about long acting contraceptive method?	1. Yes 2. No	if NO skip to 304												
302	If yes what type of modern contraceptive have you heard? More than one answer is possible	1. Implant 2. IUCD 3. I don't know													
303	What is your main source of information on IUCD and Implant	1. Neighbors /relatives 2. Husband 3. Health professional 4. Mass media 99. Other specify													
304	Have you ever had exposure to long acting contraceptive message through mass media within the last 12 months?	1. Yes 2. No													
305	If yes, please mention LARCMs You heard?	<table style="margin-left: 20px;"> <tr> <td></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> </tr> <tr> <td>1.Implan</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>2.IUCD</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>99.Other</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Yes	No	1.Implan	<input type="checkbox"/>	<input type="checkbox"/>	2.IUCD	<input type="checkbox"/>	<input type="checkbox"/>	99.Other	<input type="checkbox"/>	<input type="checkbox"/>	
	Yes	No													
1.Implan	<input type="checkbox"/>	<input type="checkbox"/>													
2.IUCD	<input type="checkbox"/>	<input type="checkbox"/>													
99.Other	<input type="checkbox"/>	<input type="checkbox"/>													

Part IV: Knowledge on long acting contraceptive methods among study participants

Code	Questions	Possible responses	Skip
401	IUCD can prevent pregnancies for 12 years.	1. True 2. False 3. Not sure	
402	IUCD can prevent Sexually transmitted Infections (STIs).	1. True 2. False 3. Not sure	
403	IUCD interfere with sexual intercourse or desire.	1. True 2. False 3. Not sure	
404	Implant can prevent pregnancies for 3-5 years.	1. True 2. False 3. Not sure	
405	Implant can interfere with sexual intercourse or desire.	1. True 2. False 3. Not sure	
406	Implants reverse pregnancy quickly when removed if the women need to be pregnant.	1. True 2. False 3. Not sure	

Part V: Attitude on long acting contraceptive methods of study participants.

Code	Questions	Possible responses	Skip
501	Using implant cause irregular bleeding and highly painful	1. Agree 2. Not sure 3. Disagree	
502	Insertion of Intra uterine contraceptive device cause to lose privacy	1. Agree 2. Not sure 3. Disagree	
503	Using Intra uterine contraceptive device restrict normal activities	1. Agree 2. Not sure 3. Disagree	
504	Long acting and reversible family planning are more safe and effective than short acting F/P methods	1. Agree 2. Not sure 3. Disagree	
505	Would you recommend LAFPM to other friends or family members who are planning to take family planning	1. Agree 2. Not sure 3. Disagree	

Part VI. Utilization of modern and long acting contraceptive methods of study participants

Code	Questions	Possible responses	Skip
601	Which type of long acting contraceptive method have you ever used? More than	1. Implant 2. IUCD	

	one answer is possible.	99.None	
602	Did you receive any information or did anyone talk to you about family planning methods during your visit?	1. No 2. Yes	
603	The method which you use currently, is that your choice	1. No 2. Yes	
604	Do you need take IUD and Implants Even if you take the other family planning methods	1. No 2. Yes	If she does not take other than IUD and Implants
605	What are the reason that you did not use IUD and Implants		

Part VII. Service quality and inter-spousal communication

Code	Questions	Possible responses	Skip
701	Do you feel that today you received the information and services you wanted?	1.Yes 2. No 3. Not sure	
702	During the consultation, did you feel that the clinic staff was friendly?	1.Yes 2. No 3. Not sure	
703	Treated with respect, adequate privacy and dignity by the care	1.Yes 2. No	

	providers	3. Not sure	
704	Respondents believed that the providers will keep their information confidential	1. Yes 2. No 3. Not sure	
705	Do you feel that your waiting time was reasonable, or too long?	1. Yes 2. No 3. Not sure	
706	Do you Discuss with your partner about long acting family planning?	1. Yes 2. No 3. Not sure	

Thank you for your participation!

የአማርኛ መጠይቅ

ቀበሌ----- የጠያቂው የኮዴድ----- የተጠያቂው የኮዴድ-----

ወረዳ/ክ/ከተማ ----- የመጠይቅ ቀን-----

ክፍሌ አንድ:- ማህበራዊና ኢኮኖሚያዊ ሁኔታ መጠይቅ

ክፍሌ ሁለት:- የስነተዋልዶ ታሪክ በተመሆኑ

ኮዴ	ጥያቄዎች	ለጥያቄው መሌስሉ ሆን የሚችሉ ሆኑ	ወደ ቀጣይ እለፉ
101	እዴ ሜዎስንትነው?	1. 15 - 24 2. 25- 34 3. 35- 49 88. አሊስ ታውሰውም	
102	የጋብቻ ሁኔታዎ ምን ይደኛነው?	1. ያሊ ገባች 2. ያገባች 3. የሞተባት 4. የተፋታች 5. የተለያየች 6. አብሮ መኖር 99. ላልች _____	
103	የምን አይማኖት ተከታይ ናት?	1. አርቶድክስ 2. ሙስሊም	

		3. ፕሮቴስታንት 4. ካቶሊክ 99. ላልች _____	
105	የትምህርት-ድህረ-ገጽ ስንት ነው?	1. ማንበብና መጻፍ የማትችሉ 2. አንደኛ ደረጃ ያጠናቀቁት (1-8) 3. ሁለተኛ ደረጃ ያጠናቀቁት (8-12) 4. ሰርተፍኬት እና ዱፕሎማ 5. ዲግሪና ከዚያ በላይ	
106	ስራዎ ምን ይደረግ?	1. የመንግስት 2. መንግስታዊ ያልሆነ ድርጅት. 3. የግሌዴርጅት 4. የቤት እመቤት 5. የቀንሰራተኛ 6. ስራ የሌለው	

ኮድ	ጥያቄዎች	ለጥያቄው መሌስሉ ሆን የሚችለው	ወደቀጣይ እለፉ
201	አግብተሽልዎ ይደረግ?	1. አግብቻለው 2. አላገባሁም	አይከሆንም ወይም ጥያቄ ቁጥር 304 እለፉ
202	መጀመሪያ ግሌዴት ስንት ደረጃ ስለሆነዎት?	<input type="text"/>	
203	ሌጅ ወይንም ሌጅ ተቀባይ ስለሆነዎት?	1. አዎ ወይንም አዎ ታላቅ 2. አይደለም ወይንም አይደለም	አይከሆንም ወይም ጥያቄ ቁጥር 304 እለፉ
204	መሌስሽ አዎ ከሆነ፣ የመጀመሪያ ግሌዴት ስንት ደረጃ ስለሆነዎት?	<input type="text"/>	

205	ስንትሌጅውሌዮሞሌ?	<input type="text"/>	
206	በህይወትያለስንትሌጆችናቸው?	<input type="text"/>	

ክፍሌሦስት:-ስለዘመናዊወሎድመቆጣጠሪያእናረጅምጊዜየሚያገለግለወሎድመከሊከያዘዳዎችየተሳተፈዋየመረጃምንጭ

ኮዴ	ጥያቄዎች	ለጥያቄውመሌስሉሆንየሚችለው	ወደቀጣይእለፉ						
301	ስለዘመናዊወሎድመቆጣጠሪያስምተውያውቃለ?	1. አዎ 2. አሊውቅም	አሊውቅምከሆነወደ ጥያቄቁጥር 304እለፉ						
302	መሌስዎአዎከሆነየትኛውንየወሎድመቆጣጠሪያየተጠቀሙት? (ከአንዴበሊይመሌስመስጠትይቻሊሌ)	1. ከንዴሊይየሚቀበር 2. (ሉፕ) በማዕጸን 3. አሊውቅም							
303	ስለዘመናዊወሎድመቆጣጠሪያመረጃ ከየትአገኙ?	1. ጎረቤት/ዘመዶ 2. ከባለቤትዎ 3. ከጤናባለሙያ 4. ከብዙአንመገናኛ 99.ላልች _____							
304	ባለፈው 12 ወራትስለስለዘመናዊወሎድመቆጣጠሪያመረጃአግኝተዋል::	1. አዎ 2. አይ							
305	መሌስትአዎከሆነየትኞቹን (የተጠቀሱትን ያክብቡ)?	አዎአይ 1. ከንዴቆዲውስጥየሚቀበር1 2. በማዕጸንየሚቀመጥ 99.ላልች _____	<table border="1"> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>								
<input type="text"/>	<input type="text"/>								

ክፍሌአራት፡- ስለየረጅምጊዜ የወሊድ መቆጣጠሪያ ስራ ጥያቄዎችን የሚያስተዳድሩት ደረጃ

ኮድ	ጥያቄዎች	ለጥያቄው መሥሪያ ቤቅ ስራ ስለሚኖረው	ወደቀጣይ አለፉ
401	ሉፕ (በማዕጸን የሚቀመጥ የወሊድ መከላከያ) የ12 ዓመት እርግዝናን ይከላከላል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	
402	ሉፕ (በማዕጸን የሚቀመጥ የወሊድ መከላከያ) የአባሊ ዘርቦችን ይከላከላል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	
403	ሉፕ (በማዕጸን የሚቀመጥ የወሊድ መከላከያ) የግብረሰታዎችን የወይን ስርዓት ለይተኛ ደረጃ ይረዳል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	
404	በክንዶቹ ውስጥ የሚቀበር የወሊድ መከላከያ ክፍል 3-5 እመት እርግዝናን ይከላከላል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	
405	ቆዳ ውስጥ የሚቀበር የወሊድ መቆጣጠሪያ የግብረሰታዎችን ስርዓት ለይተኛ ደረጃ ይረዳል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	
406	ቆዳ ውስጥ የሚቀበር የወሊድ መከላከያ ከወጣበት ለውጥ ያለውን ማርገዝ ይቻላል፡፡	1. እውነት 2. አሰት 3. እርግጠኛ አይደለም	

ክፍሌ አምስት፡- ስለረጅም ጊዜ የሚያገለግል የወሎ ድመከሊ ከያዘዳዎች የተሳተፈ ዎች አመለካከት

ኮድ	ጥያቄዎች	ለጥያቄው መሌስሉ ሆን የሚችለው	ወደቀጣይ አለፉ
501	በክንዴ ቆዲ ስር የሚቀበረውን መጠቀም የተዛባ የደም መፍሰስ እያሰከትሉም፡፡	1. እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አሌስማማም	
502	ሉፕ በሚገባበት ወቅት የግሌሁ ኔታና ሚስጢርን አያጋሌጥም፡፡	እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አሌስማማም	
503	ሉፕ መጠቀም የተለመደ እንቅስቃሴዎችን ማዴረግ አያገደብም፡፡	እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አሌስማማም	
504	በክንዴ ቆዲ ስር የሚቀበረው ሲገባና ሲወጣ የተጋነነ ህመም አይኖርም፡፡	እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አሌስማማም	
505	እንዲሁም በክንዴ ቆዲ ስር የሚቀበረው ከገባ በኋላ በላሊ የሰውነት አካሌው ስጥ አይዘመትም (አይዘዋወርም)፡፡	እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አሌስማማም	

ክፍሌ ስድስት፡- የዘመናዊ የወሎ ድመከሊ ከያዘዳ እና ስለረጅም ጊዜ የሚያገለግል የወሎ ድተጠቃሚነት

ኮድ	ጥያቄዎች	ለጥያቄው መሌስሉ ሆን የሚችለው	ወደቀጣይ አለፉ
601	የትኛውን የወሎ ድመከሊ ከያዘዳ ተጠቅመው ያውቃሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. በክንዴ ቆዲ ስር የሚቀበር 2. ሉፕ 99. ላልች _____	

705	የጠበቅሽወግዚምክንያታዌነውብ ለሽታስቤያልሽ?	1.አላስብም 2.አስባለሁ 3. እርግጠኛ አይደለሁም	
706	ስለረጅምጊዜየወሊድመቆጣጠሪ ያከባለቤትሽ/የፍቅርጎደኛጋርተወ ያይተሽል	1.አልተወያየሁም 2.ተወያይቻለሁ 3. እርግጠኛ አይደለሁም	

ስለተሳትፎዎ አመሰግናለሁ!!

Assurance of principal investigator

I the undersigned agree to accept all responsibilities for the scientific and ethical conduct of the research project. I will provide timely progress report to my advisor and seek the necessary advice and approval from my primary advisors in the course of the research. I will communicate timely to my advisors all stakeholders involved in the study including any source of funding for this research.

Name of the student: BHRNESH DEBELLA FEYISSA

Signature: _____

Date: _____

Approval of the primary Advisor

Name of the primary advisor: _____

Signature: _____

Date: _____

Approval of the Internal Examiner

Name of the Internal Examiner _____

Signature: _____

Date: _____

Approval of the External Examiner

Name of the External Examiner: _____

Signature: _____

Date: _____

Curriculum vitae

BAHRNESH DEBELLA

Telephone: Mob. : 0911 57 08 14

E-mail: bahrdebella@gmail.com

Personal Data

Date of Birth : October 16, 1986

Sex :Female

Marital Status :Married

Nationality :Ethiopian

Career Objective

Give emergency response for highly risk population specially for children's and mother

Education

2015 **Candidate for Master in Public Health (MPH)** at Addis Ababa university

2009 **BSC degree on public health Officer from Medico Bio Medical College**
With CGPA – 4.00

2006 **Certificate on natural science**

Professional Experience

April 2015- Now **Position: PROJECT OFFICER**
ON STRENGTH ETHIOPIAN URBAN HEALTH PROGRAM (SEUHP) FOR AKAKI KALITY CITE.

Organization Name : EDA- integrated with JSI and funded by USAID

	<p>Organization type: NGO</p>
	<p>Major Duties & Responsibilities</p> <ul style="list-style-type: none"> • Providing technical support to urban health extension supervisors and urban health extension professional on the implementation of Ethiopian urban health extension program special attention to TB/AIDS, MNCH, RH/FP and WASH innervations including M&E, community mobilization and BCC and PPP activities. • Coordinate and facilitate training and review meeting and other event • Work closely and integrate with John Snow Inc. (JSI/SEUHP), sub-city health officer for implementation of SEUHP. • Conduct supportive supervision and regular data quality assessments for urban health extension supervisors and urban health extension professional with SEUHP monthly checklist filled; action plan is developed on points to be improved and on spot oral and written feedback has given • Prepared weekly, monthly, quarterly and annually work report. • Preparing weekly, monthly, quarterly and annually detailed implementation work plan.
<p>July/2014 – April/2015</p>	<p>Position: URBAN HEALTH EXTENSION SUPERVISOR</p> <p>Organization Name : <i>Arada sub-city, woreda 03 health office, Addis Ababa</i></p> <p>Organization type: GO</p> <p>Major Duties & Responsibilities</p> <ul style="list-style-type: none"> • Community mobilizing (planning, awareness raising, building a coalition, taking action and monitoring and evaluating) • Coordinate and guide the health extension professional. • Made regular supervise supervisor in order to provide technical support. • Provide trainings for health extension to fill the gap. • Coordinate and lead a team to conduct the base line survey in the community. • Prepared monthly /quarterly progress updates and report. • Give supportive supervision on the area of <ul style="list-style-type: none"> - RH (MCH), NUTRITION, EIP, HIV/ADIS, TB, ENVIROMENTA
<p>November/2012-</p>	<p>Position: AS PHYSICIAN AT OUT PATIENT DEPARTMENT (OPD) LEVEL</p> <p>Organization name: Vision Medium Clinic and Ketuma Medium</p> <p>Organization type: <i>privet organization</i></p>

<p>March/20114</p>	<p>Major Duties & Responsibilities</p> <p>Ø provide service for patients at OPD level.</p> <p>Ø conduct different procedure, like delivery, circumcision, safe abortion care, long acting family planning and others.</p> <p>Ø conduct home based service for different clinical cause.</p>	
<p>March ,2009 - May2011</p>	<p>Position: CLINICAL NURSE</p>	
	<p>Organization Name: <i>MYUNGSUNG CHRISTIAN MEDICAL CENTER</i></p>	
	<p>Organization type: <i>NGO</i></p>	
	<p>Major Duties & Responsibilities</p> <p>Ø give a care ad support as Doctor orders, like IV line securing, dressing (wound care), giving medication, catheterization, enema, lavaging, and others.</p> <p>Ø Follow and conduct delivery, give new born baby care</p> <p>Ø prepare and discus every day patient condition with staff and staff head and report to the physician.</p> <p>Ø report every detail activity on monthly meeting with metro and staff head to monitor and evaluate activities.</p>	
<p>Training and skill</p>		
<p>Training</p>	<p>Take training</p>	<ul style="list-style-type: none"> • On Ethiopian Health Policy, Urban Health Package, Community Mobilization, Staff Motivation, Communication Skill, Health Planning, Monitoring and Evaluation, Recording and Reporting. Addis Ababa city government health bureau. December 2-December 5, 2002 EC • Certified Sexually Transmitted Infection Syndromes Management training17/03/2013 GC

		<ul style="list-style-type: none"> • Certified on proposal development, report writing and photography. Emmanuel Development Association. August 28, 2015. • On Core Public Health TOT by Jon snow ink (JSI) and Addis Ababa city government health bureau. • On Supportive Supervision TOT by Jon snow ink (JSI) and Addis Ababa city government health bureau. • On UIRT (urban integrated refreshment training) TOT by Jon snow ink (JSI) and Addis Ababa city government health bureau. • On Quality Improvement Team (QIT) TOT by Jon snow ink (JSI).
	Give training	<ul style="list-style-type: none"> • Give training for UHEP-s, Supervisors and selected health center staff on Core Public Health training for 6 days at CCRDA training centre. • Give training for UHEP-s, selected health centre staff on Supportive Supervision for 5 days at CCRDA training centre. • Give training for Quality Improvement Team 2 days at WISE Training Centre. • Give training for UHEP-s and their supervisors Job Aid training for 2 days at WISE Training Centre.
Skill		<ul style="list-style-type: none"> • Capability of conducting training and workshop. • Have computer skill on MS-word, Ms-excl, MS-power point, and SPSs, epi-info.

Research conducted BSC level

I studied on

- KAP on condom utilization of CSW in Addis Ababa Kasanchis.

Languages

	Language	Oral Level	Written Level
	Amharic	Advance	Advance
	English	Advance	Advance
	Oromo	Good	Poor

REFERENCE

1. MR-Solomon Tesfaye , Program coordinator on SEUHP of EDA, Tel. 0912677247 E-mail soltesfaye99@gmail.com
2. MR-Asnake Kassahun, Public Health Advisor of JSI, Tel.0911142422 E-mail asnakek@seuhp.org
3. MS-TigistHailu, Capacity Building Advisor of JSI, TEL 0911753583and E-MAIL tigisth@seuhp.org