

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH



Postpartum contraceptive use and associated factors among women of reproductive age group within the first 12 months of delivery in public health facilities of Addis Ababa, Ethiopia

A Thesis to be submitted to the School of Public Health for the partial fulfillment of the requirement for Master's Degree of Public Health in Reproductive Health

Investigator - Zelalem Tedla(BSc)

Advisors

- Dr Assefa Seme (MD, MPH)
- Mr. Niggussie Assefa (MPH)

Addis Ababa, Ethiopia

2016/2017.

Acknowledgment

I would like to thank the almighty GOD for helping me through all this. Next I would like to thank Addis Ababa university school of public health for offering this chance for me. My deepest gratitude goes to my advisor Dr. Assefa Seme and Mr. Nigussie Assefaw where they helped me from a scratch through where the Thesis has reached now. Dr. Mitekie Molla, Dr. Girma Taye, Dr. Eshetu Girma and Demowez Hailei am very much thankful for your unlimited support while developing this thesis. I would like to thank AAHB and the staff of all woreda health center and participants in this study for providing valuable information. Lastly my mother's W/O Woineshet Abddisa and Shetaye Kebed and my friends for supporting me from day one through the process until the end.

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Acronyms

ANC	Antenatal Care
COC	Combined Oral Contraceptive
CI	Confidence Interval
CIM	Child Immunization
DHS	Demographic Health Survey
EDHS	Ethiopian Demographic Health Survey
EPI	Expanded Program of Immunization
FP	Family Planning
HC	Health Center
LAM	Lactational Amenorrhea
NFHSI	National Family Health Survey of India
PNC	Post Natal Care
PPFP	Postpartum Family Planning
REC	Research and Ethics Committee
SRS	Simple Random sampling
WHO	World Health Organization

Abstract

Background: Globally over 9 out of 10 women want to avoid pregnancies after having a child but only one in seven of mothers who want to avoid pregnancy are not using family planning method. Majority of the women wanted to space births and hence have high desire to avoid getting pregnant soon after their recent births. However due to various reasons larger number of women get pregnant within 7- 9 months their recent delivery.

Objective: To assess the use and factors associated with postpartum family planning among women of reproductive age in Addis Ababa.

Method: A health institution based cross sectional study was conducted in Addis Ababa City. A total of 631 women of reproductive age who gave birth in the past 12 months prior to the study and who came to the selected health facilities for child immunization services and/or antenatal care services during their postpartum period were interviewed. The collected data were entered into EPI info version 7 and transferred to STATA version 14 for analysis. Descriptive statistics has been used to describe the study variable. Bivariate analysis and multi variable logistic regression was done to see the association between independent variable and the outcome variable (Postpartum Family Planning Use).

Result: A total of 623 respondents have participated in this study, with 98% response rate. From the total respondent 86.2% fall in the age group of 20-34, (97.4%) are currently married and 86.5%. Over all twelve-month' magnitude of PFP use was found to be 50.8%. From the total respondents 85.4% knew at least one method of postpartum family planning, 97.3% of them had reported that they have ANC attendance, 78.5% had obtained (PNC) service. Menses return (OR=1.9), resumed sexual intercourse (OR=7.8), discussion with husband/partner (OR=3.0) and PNC counseling (OR=3.0) were found to have statistically significant association with postpartum family planning use among study participants.

Conclusion: contraceptive use during postpartum period is low. Injectable and POP were the most widely used types of method used during postpartum period. It has significant association with factors like discussion with husband, Menses resumed, sex resumed and postpartum counseling.

Recommendation: PNC counseling should be stronger in the possible contact of postnatal.

1 Introduction

1.1 Background

Family planning is essential for those who are single or in union to determine their family size either by limiting or spacing. Using a contraceptive method following child birth is helpful for women to avoid the upcoming pregnancies at least for two years and it also has beneficial effects on the health of the children.(1) Limiters are those families who already limited their family size while spacers are those who want to have more children in the future but would like to stay a while before having the next child. Their need is addressed by postpartum family planning services which play an important role by reducing unmet need for family planning. (2)Births which occurs at least after two years are highly associated with preferred outcomes like decreased neonatal and prenatal mortality, good birth weight, lower risk for being stunted and also let the mother and child to have a two years of time for exclusive breast feeding.(3)This means that children born with birth interval longer than two years have the chance to avert death among one out of ten infants by spacing their pregnancies more than two years apart. The importance and purpose of postpartum family planning is to inhibit and postpone unplanned and closely spaced pregnancies next to the present child. Globally, among 9 out of 10 women's who want to avoid pregnancies after having a child, one in seven are not using family planning method.(4)Beyond inhibiting and postponing pregnancy, postpartum family planning (PPFP)service allows couples to achieve their aspiration by providing a range of postpartum family planning methods, help women to settle on their choice of method , begin using it and to keep on as far as the couple want. (2)Even if there is an intent to avoid future pregnancies just after child birth due to many reasons majority of women get pregnant within 7-9 months of recent delivery and couldn't protect themselves from unintended pregnancies. (5) Demographic health survey (DHS) analysis of 21 low income countries report indicates that more than 50% of pregnancies occurred within short birth intervals(less than 24 months) have high risk for maternal death .(6) Evidence thus showed that utilizing a family planning method during postpartum period can decrease child death by10% and maternal deathby30% .(7)Similarly, DHS report that 47% of pregnancies in Ethiopia occur within short interval period, which is less than 24 months after a child birth which gives rise to high maternal and infant deaths. The report particularly indicated that 86% of women have unmet need for family planning during their postpartum period.(8)Little is

known about the proportion of women using PFP in Addis Ababa. while the program and policy implication globally shows that most pregnancies are spaced less than two years apart these could point out that larger number of women are unaware of pregnancy risk postpartum or they might not be able to reach contraceptive as needed, this is also expected in Addis Ababa.(2)

1.2 Statement of the problem

Across the world, use of postpartum family planning is increasing. Even if there is an increment in utilizing FP during postpartum period, researches show that there is a big difference among poor African countries and the rest of the world.(9) Most women in reproductive age group who wishes to avoid pregnancy during postpartum period are not using family planning which accounts for 12% worldwide.(10) Similarly, DHS analysis among 17 low income countries also revealed different results among the nations showing that similar countries share similar number of prevalence to each other. The study also revealed that Guinea and Ethiopia are the countries which shows extremely low prevalence on PFP utilization 5.4% and 9.6%, respectively, in twelve month of time.(11) According to the DHS analysis report of 27 developing countries, among the 95% of women who want to avoid pregnancies for at least two years, it is seen that more than 65% of them are not using any form of contraceptive. A similar study revealed that 81% of postpartum women are not using any form of family planning method in Ethiopia(12).The above seen low number of prevalence indicates that there is a problem and associated factors in utilizing contraceptive method during postpartum period. Likewise, in our country, a Studydone in Butajira shows results on magnitude of postpartum family planning and associated factors by excluding pregnant women. By excluding current pregnant women with short birth interval or who gave birth in the past twelve month who have used family planning method may be missed which in turn result in under estimation. So, this study has included those women who were pregnant during data collection in order to avoid the above mentioned gaps. And also previous study from another settings suggests that factors like resumed sexual intercourse and menses return are highly associated to postpartum family planning use.(13)A similar condition was expected in this study setting. So studying the magnitude of postpartum use and associate factors in the first 12 month after delivery in Addis Ababa has been applicable in identifying factors for low magnitude of postpartum family planning.

1.3 Significance of the study

For those individuals or couples who wanted to avoid or postpone unintended or unwanted pregnancies after their first or second child, their aspiration is only achieved by the help of postpartum family planning. So, having a two year or more pregnancies interval is useful to avert unintended pregnancies, infant and child death, maternal death, and abortion. Postpartum family planning had the chance to attain the MDG 4 and 5 and now also has enough potential to accelerate and progress toward sustainably developmental goal which forward the Global agenda. It also improves couple connection and family cohesiveness. And it gives them freedom from fear of unplanned pregnancies; increases partner relations and family well-being because the mother and the father have more time to support their family. PPFP provides economic opportunity for the women to spend more money on education and nutrition for her child. By doing so the general safety by meaning the safety of the mother, the child the general community is achieved. PPFP allows the couple, family, community, country in general the nation to lead a better life.

Therefore, this study has been proposed to assess the magnitude of postpartum family planning use and factors associated with it. The outcome of this study will be useful to discover the cause of the problem that enhanced the existing fact and invent a way that could improve and plan a suitable family planning program during postpartum period, organize and develop interventions which will help to improve postpartum family planning services in the health center which could even be accessible in the health post and come up with a new or a modifiable strategy which could be done by Health extension workers in the entire country.

2. Literature review

Global overview

The time after giving birth which is commonly called postpartum is a difficult time for women to predict, hang on with their status and schedule for breast feeding. To avoid unintended, unwanted and narrowly spaced pregnancy contraception plays an important role during postpartum.(1) Those pregnancies spaced with at least two years and above have high chance of averting 10% of infant death and 21% of child death.(14) If mothers are having the desired number of children that they are looking for then it means that the decline of maternal mortality is being ensured.(2) So by using PPFP, unintentional and unwanted pregnancy can reduce 25% of maternal death. (15) In developing countries over 90% of women postpartum wants to space or limit the following pregnancy but 61% of them are not using a contraceptive method. (16) Likewise analysis of NFHSI shows that there is increased demand of postpartum family planning for spacing and limiting but still two in every 3 women postpartum are not using a method due to these majority of women in India are vulnerable to pregnancies. (17)

A study from 5 low income countries reveals that from 91% of women postpartum who wants to delay their pregnancy at least for a year, 70% of women are not using a family planning method. (18) The DHS analysis of 21 low income countries shows that PPFP utilization is low in countries like Liberia, Mozambique, Nigeria, Ghana and Ethiopia 93%, 89%, 85%, 81%, 81% respectively.(6)

Use of family planning in postpartum period

Globally there is a variation in use and types of family planning method. Permanent type of FP like long acting reversible ones are used around Asia and 90% of short acting contraceptives like hormonal injectable were used in Africa.(18) Similarly a study done in Guatemala, Pakistan, northern Malawi, Nigeria, Kenya and Ethiopia shows that injectable is widely used type of contraceptive followed by COC and implanon.(18-21) But a study done in 5 different low income countries and India suggests a different idea than that of the idea supported by the above study which shows that condom use is very high then followed by periodic abstinence and sterilization.(17, 18) The DHS analysis of 43 country shows that Colombia and Zimbabwe has greater than 50% rate of FP utilization in 12 month of time.

Whereas countries like Sierra Leone, Burundi and Ethiopia have less than 20% rate of FP utilization. And Use of LAM in postpartum period is preferred and also it is very high in Bolivia, Madagascar, Nigeria, Sierra Leone compared to the other methods. Whereas Ethiopia's LAM use is extremely low which shows us that LAM is poorly practiced.(9) But a survey study done in Jordan shows that if LAM is used properly the overall rates of modern contraceptive method can also be improved.(22)

The utilization of PPFP depends on the intention of the couples and also the reason that they have which is different among individuals. A study done in Kenya shows that women during postpartum have 38% of unmet need for limiting and 48% of unmet need for spacing. (18) The study in Malawi shows that the reasons mentioned by postpartum women are because they are lactating which accounts for 29.5% followed by not having sex but the study done in North West Ethiopia suggests that women's reason is that because they have little perceived risk of pregnancy for not using a method followed by absence of their husband.(23, 24)

Factors for current nonuse family planning method

From the reviewed journal, most of them showed that socio demographic characters like age, marital status, educational status, wealth status and religion are significantly associated with the use of PPFP. From the analysis of Malawian DHS, it is seen that when age rises utilization of PPFP also increases. Marital status also shows difference pattern among unmarried and married one. Married women use PPFP method than unmarried one. Similarly educational status as well increase from non-educated one to primary level educated one but there is a drop of PPFP use when moving from the primary to secondary educational and above level. (23) Correspondingly a cross sectional population based study in Uganda shows that there is a direct proportional relationship between educational status and PPFP use. Unlike the above study done in Malawi the association between marital status and use of PPFP is different in Uganda. It shows as that utilization of PPFP is high among unmarried one than that of married one. And also, utilization of PPFP increases when age increases. When the age increases from 15-29 use of PPFP has an increasing pattern and when age increases greater than 29 and above it has a dropping rate of PPFP use. (25) DHS analysis of 43 countries also shows that use of PPFP increases in the age group 25 -34 than either younger or elder. Educational status also matters in utilization of PPFP. The higher the educational status the higher the use of

PPFP.(9)A study done in Northern Ethiopia suggest that when age increases up to 34 the use of PPFP also increases and then it drops down. When we see the association between educational status and PPFP utilization it shows us that those women who are not educated have a higher rate of use than that of the primary educated ones.(24)

Little is found about the association between PPFP use and religion. Study done in Uganda shows that religious connection is associated to the use of PPFP .protestant religion is 1.2 times more likely to use PPFP than that of Catholics.(25) While when we look to the wealth quantile status of the women it reveals that there is extreme effect on utilization of PPFP. The effect is more comprehended on the DHS analysis of 43 countries. when wealth quantile pattern increase from poor to reach utilization of PPFP also increase except in Bangladesh and Indonesia where they have equal pattern among poor to reach in utilization of PPFP.(9) Association between wealth quantile status and use of PPFP on the DHS analysis done on three countries does not show significant association in Nigeria and Malawi but the result of the same study support a different idea in Ethiopia. Which is that use of PPFP are significantly associated with wealth quantile status. Showing that it is higher among the richest than the poorest.(7) Similarly a study done in Butajira also shows that women with poor status are 3 times less likely to use PPFP than that of reach women.(26)

From the reviewed literature, it's found that the immediate adjacent factor that is associated to the use of PPFP is reproductive health characteristics is resumed menses, resumed sexual intercourse and fertility desire. Which shows as that there is a significant association to utilization of PPFP. DHS Analysis of Malawi shows that women with menses has returned are 2.37 times more likely to use PPFP service than that of non-menstruating.(23)Similarly DHS analysis of 17 countries in Bangladesh and Uganda shows that women whose menses has returned are 10 times more likely to use PPFP than that of women whose menses did not return. (11) Resumed sexual intercourse is also significantly associated to utilization of PPFP service and it is more pronounced on the study done in Malawi.(27)Likewise of the DHS from 17 country a community based cross sectional study done in Bahirdar, Ethiopia also suggest that women whose menses didn't returned are 7times less likely to use PPFP service than that of women whose menses has returned.(28)Reproductive health characteristics like future

intent or fertility desire has also association to utilization of PPFP service. A community based cross sectional study done in Gonder, Ethiopia shows that the odds of using contraceptive among women who wants a future fertility is 0.3 times less likely to utilize PPFP than those who did not have desire for future fertility.(24)

Another contributing factor for PPFP use is family planning counseling during ANC, PNC and linkage to FP department from child immunization service. Most studies revealed that women who visit ANC and PNC services and which had family planning counseling are highly associated with PPFP utilization than that of those women who did not use the service. Use of PPFP increase when ANC visit increase these is supported by the analyzed DHS of Nigeria.(20) counseling about family planning during maternal care in Malawi and Ethiopia is also associated to use PPFP.(24, 27) similarly another analyzed DHS study of Malawi suggests that the use of PPFP is influenced by repeated maternal care visit.(23) In Nigeria and Malawi using FP service is modestly associated to child immunization but when we see the result for Ethiopia it is a bit different. Those women who did not completed immunization for their child are two times less likely to use PPFP service than women who did.(7) community based cross sectional study done in Butajira, Ethiopia also agree with the fact that linkage to FP service from child immunization center by health professionals are four times more likely to use FP than that of who are not linked.(26)

The other most essential determinant for PPFP is awareness about family planning which is devising knowledge, source of knowledge, source of FP and consultation with partner which matter in utilization. Having knowledge about family planning is the first step to access family planning. A study done in Malawi reports that from the 361 respondent's about 94.3% of women were able to mention at least one type of contraceptive. And their source of knowledge about PPFP for 74% the respondents is antenatal clinic and postnatal clinic center for 54.4% of the women. (27) Likewise a community based cross sectional study done in Butajira, Ethiopia reveals that more than half of the study participants have information about family planning. And from the multiple regression result of the same study family planning knowledge is significantly associated to use of PPFP. Women source of knowledge brings change in FP service utilization. These is supported on the research done in Uganda showing

that women who are exposed to media are 1.9 times more likely to use family planning method than those non-exposed.(25) Similarly a study done in Nigeria and Ethiopia also shows that exposure to family planning message are significantly associated to the use of PPFP service.(20, 26) Discussion about family planning brings better and different result than that of decision done individually. A Study done in Malawi suggests that there is a significant association between husband consultation and PPFP utilization.(27) The result of study done in North West Ethiopia support the idea revealed by the Malawian study which is partner consultation and joint decision takes the higher rate for PPFP use than that single decision.(24) As discussed above in the statement of the problem the gap to be filled by this study is that this research included those women who were pregnant at the time of data collection in addition to the mothers who gave birth in the past 12 months. These mothers who came to visit the child immunization center for vaccination service or ANC have been asked for different factors affecting the use of PPFP in Addis Ababa city.

2.1 Conceptual frame work

The conceptual frame work is created based on the review done and modified from different literatures aiming to be used as a guide. It includes socio demographic and economic factors like age, marital status, educational status, wealth status, religion and ethnicity. The other factor is reproductive health characteristics including resumed sexual intercourse, returned menses and fertility desire. Another factor for the outcome variable is also Follow up that incorporate postnatal care service, antenatal care service, family planning counseling, and linkage to family planning center during the immunization. And the last factor is Awareness on PPFP including knowledge about family planning, source of information and source of family planning. Studies support that factors knowledge are associated with use of postpartum(26) a descriptive study from Malawi reports that resumed sexual intercourse is also associated to the use of family planning.(27) A study done in Gonder town also suggest that fallow up factors is also associated to postpartum contraceptive usage. (28) also a study from Nigeria revels that socio demographic characteristics like age is associated to use of postpartum family planning.(20)

Conceptual framework

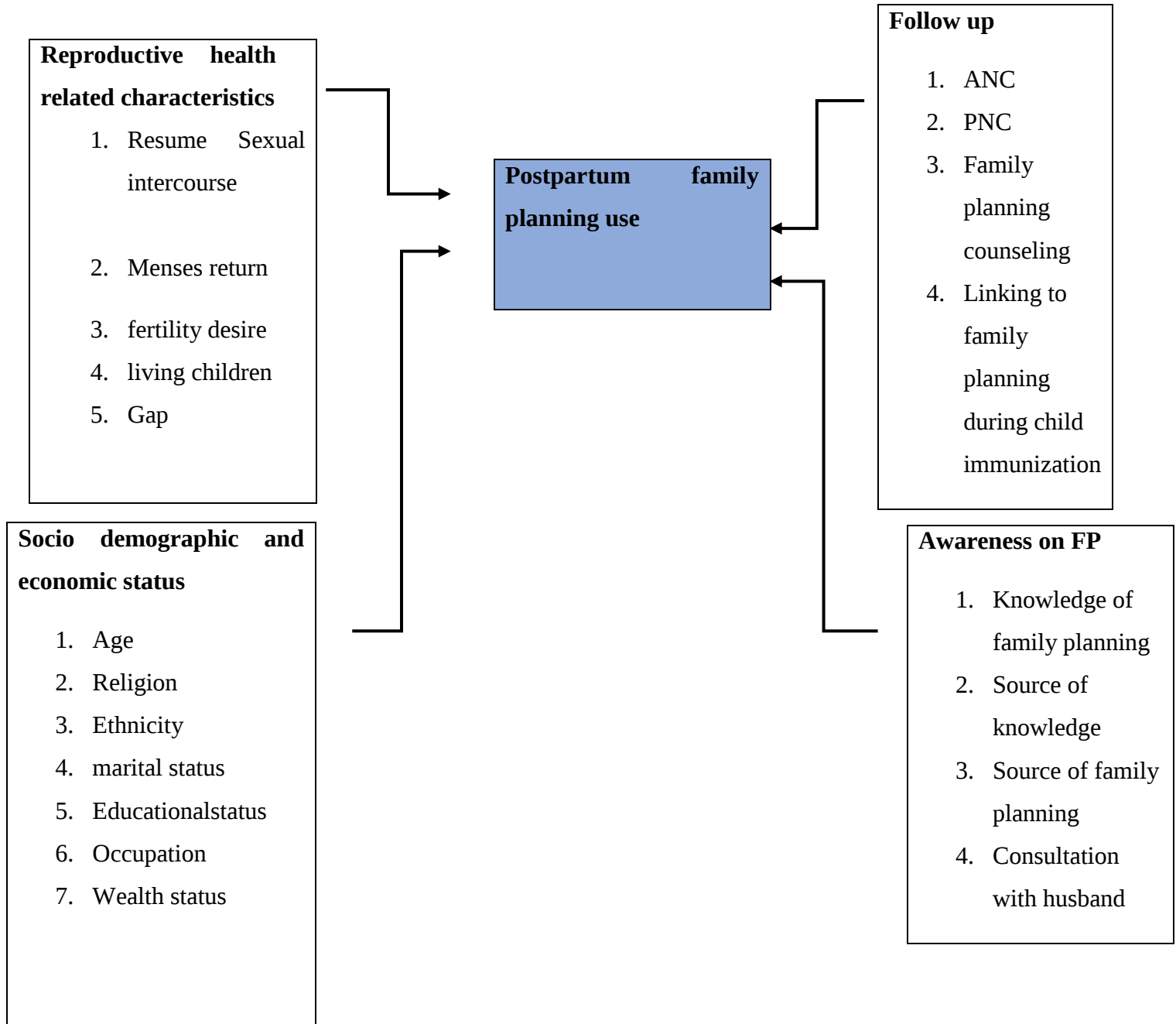


Figure 1 diagrammatic representation of the conceptual framework which is adopted and modified from a study done in Butajir by Mahelet Getachew 2015/20167.

3 Objective

3.1 General Objective

The general objective of the present study was to assess the Use and factors associated with postpartum family planning use among women of reproductive age in Addis Ababa, Ethiopia.

3.2 Specific objectives

- To determine the Use of postpartum FP use among women of reproductive age in Addis Ababa.
- To identify types of post-partum family planning methods used by women of reproductive age in Addis Ababa.
- To identify factors associated with postpartum family planning use among women of reproductive age in Addis Ababa.

4 Method

4.1 Study area and setting

This study was conducted in Addis Ababa, which is the capital city of the Democratic Republic of Ethiopia, which covers an area of 540.01square kilometers and consists of 10 sub-cities and 116 woredas. Based on the Central Statistical Agency (CSA) report of 2007, Addis Ababa has a total population of 3, 370,778 in 2016 as projected from the 2007 Census. There are 51 hospitals in Addis Ababa with 6 hospitals being under the administration of the Addis Ababa Regional Health Bureau, 5 under the Federal Ministry of Health and the remaining are private hospitals. There are 86 health centers in Addis that provide mandatory services like Antenatal care (ANC), Expanded Programs of Immunization (EPI) and Family Planning (FP) services.(29)

4.2 Study design and period

This is an institution based cross sectional study design which has been conducted among women of reproductive age who came for child immunization services and antenatal care services. The study period was from December 2016 to June 2017.

4.3 Source population

The source population was all women of reproductive age group who gave birth within 12 months in Addis Ababa, Ethiopia.

4.4 Study population

The study population was women of reproductive age group who gave birth within 12 months prior to the study and who were attending health facilities for infant vaccination or for antenatal care services.

4.4.1 Inclusion criteria

Women in reproductive age who gave birth within 12 months, attending infant vaccination services or ANC service were included.

4.4.2 Exclusion criteria

- Women who were seriously ill during data collection time were excluded.

4.5 Sample size determination

Sample size for the specific objective one and two was calculated using a single population proportion formula based on the following assumptions; 95% confidence level, and 5%

margin of error to recruit study participants. 10% none respondent rate will be considered. From a study done in Gonder on postpartum contraceptive use showed that the magnitude of postpartum contraceptive use is 48.4%.

- N = the number of participants to be interviewed
- p = expected prevalence postpartum family planning in the community based study (48.4%)
- $(z\alpha/2)^2$ = standardized normal distribution value for the 95% CI, = 1.96
- d = marginal error between the samples and population 5%

The sample size calculated using the above formula is

$$N = \frac{(z\alpha/2)^2 p (1-p)}{d^2}$$

$$N = \frac{(1.96)^2 \times 0.48(1-0.48)}{(0.05)^2}$$

N = calculated sample size = 383

When 10% none response rate and designing effect is added the final sample size is n= 631

The sample size for the third objective was calculated by using EPI INFO version 7 by considering some determinants for PPFP use based on the following factors.(30)

Table: 1 sample size representation for selected factors for assessment of PPFP use and associated factors in Addis Ababa. 2017

Factors	of 1- βof(power)	zα/2 95% CI	Ratio of unexposed/exposed	P1	P2	N=
ANC	80	1.96	1	5	14	374
Menstrual return	80	1.96	1	16	32	246
Fertility desire	80	1.96	1	34	66	88

For the first factor which is ANC visit it was calculated as

P1= the proportion of those women who had ANC visit, p1=5%

P2= the proportion of those women who didn't had ANC visit, p2= 14%

P= the pooled prevalence $\frac{p1+p2}{2}$ i.e.

$$2$$

Z (1- α /2) = 1.96 which is the value of standard normal distribution

Z (1- β) = 0.84, value of the standard normal distribution corresponding to the desired level of power (0.84 for power of 80%)

$$N = \frac{2(z (1-\alpha/2) + z (1-\beta))^2 p (1-p)}{(P1-p)^2}$$

$$(P1-p)^2$$

Therefore, sample size was 374

For the second factor, which is returned menses

P1= the proportion of women whose menses had returned, p1=16%

P2= the proportion of women whose menses didn't returned, p2 = 32%

The pooled prevalence $\frac{p1+p2}{2}$

Z (1- α /2) =1.96 which is the value of standard normal distribution

Z (1- β) = 0.84, value of the standard normal distribution corresponding to the desired level of power (0.84 for power of 80%)

$$N = \frac{2(z (1-\alpha/2) + z (1-\beta))^2 p (1-p)}{(P1-p)^2}$$

$$(P1-p)^2$$

N =246

For the third factor which is fertility desire

P1= the proportion of women who wants to conceive $p_1=34\%$

P2= the proportion of women who don't want to conceive $p_2 = 66\%$

The pooled prevalence p_1+p_2

$Z (1-\alpha/2) = 1.96$ which is the value of standard normal distribution

$Z (1-\beta) = 0.84$, value of the standard normal distribution corresponding to the desired level of power (0.84 for power of 80%)

$$N = \frac{2(z (1-\alpha/2) + z (1-\beta))^2 p (1-p)}{(P_1-p)^2} = N = 88$$

$$(P_1-p)^2$$

Accordingly, the first factor calculated using single population proportion formula yields the largest sample size, so it was the final sample size determined for this study

4.6 Sampling procedure

In Addis Ababa city, there are 10 sub-cities which consist of 86 health centers. By using simple random sampling method 50% of the sub-cities were selected, namely Bole, Gullele, Lideta, N/S Lafto and Kirkos sub cities. Among the selected sub-cities, number of health centers located were not similar. Due to dissimilarities, proportional allocation technique has been used to select the number of health center. After using proportional allocation system health center were selected by simple random sampling technique. In each health center three-months client flow was also dissimilar due to this again by using proportional allocation technique number of participants in each sub-city were selected. From all the eligible participants visiting EPI for child vaccination and ANC services within the data collection period they were selected until it reaches the sample size.

Calculation used for the sampling procedure

$$9+9+6+8+9=41(\text{Bole, Gulele, Ledeta, N/lafto, Kirkose})$$

For 10 sub cities health coverage is 100%

Bole $\frac{41 \times 9}{100} = 4 \text{ H.C}$	}	calculated number of H.C
Gulele $\frac{41 \times 9}{100} = 4 \text{ H.C}$		
Ledeta $\frac{41 \times 6}{100} = 2 \text{ H.C}$		
N/lafto $\frac{41 \times 8}{100} = 3 \text{ H.C}$		
Kirkose $\frac{41 \times 9}{100} = 4 \text{ H.C}$		

Each health center participant was selected from the total average Clint flow. It is calculated as

Table 2: sampling technique representing average three month client flow of CIM and ANC for assessment of PPFP use and associated factors in Addis Ababa June 2017.

SER	SM	HD	AD	SL	W2	W11	W12	TH	LD	MK	KR	EFT	FM	GO	AW	B17	DF	
EM	47	61	98	68	300	214	144	53	13	79	73	18	39	117	120	111	91	
ANC	32	42	64	66	165	150	95	32	7	68	54	15	30	61	46	51	46	
TOL	79	103	162	134	465	364	239	85	20	147	127	33	69	178	166	162	137	2670

Table 3: Number of participants calculated from three month client of CIM and ANC for assessment of PPFP use and associated factors in Addis Ababa. June 2017

SER	SM	HD	AD	SL	W2	W11	W12	TH	LD	MK	KR	EFT	FM	GO	AW	B17	DF
EM	11	14	23	16	71	50	34	12	3	19	17	4	9	28	28	26	21
ANC	8	10	15	16	39	36	22	8	2	16	13	4	7	14	11	12	11

From a study done in Ethiopia, short birth interval in Addis Ababa is found to be 10% .So from the selected participants in the health center 90% of women were selected from the child immunization center and 10% of women with short birth interval were selected from the ANC service in each health center.(31) The participant selected from ANC service 10% has been calculated and total of 25 pregnant women has been selected and 606 women has been selected from CIM center.

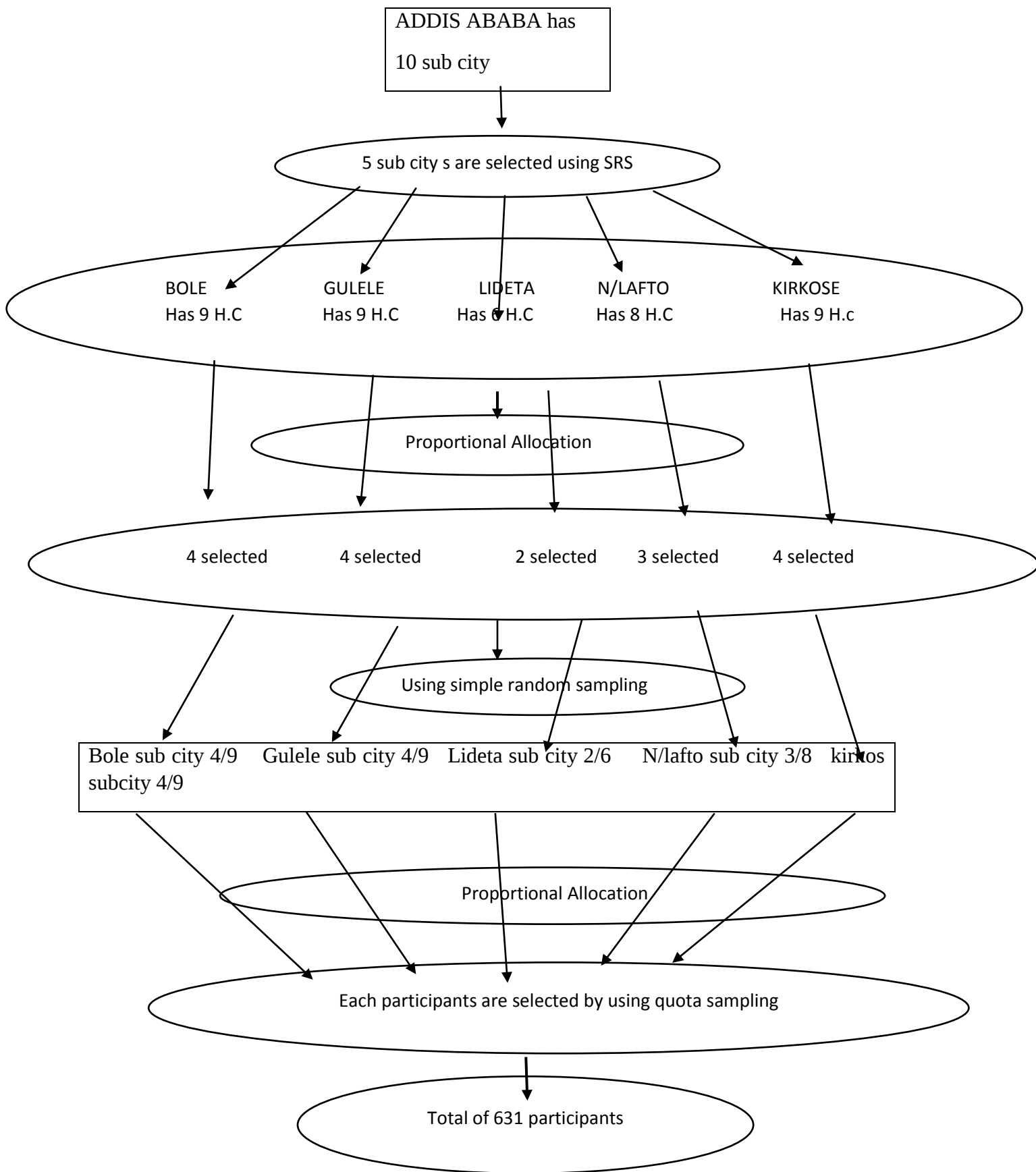


Figure: 2 schematic presentation of the sampling procedure.

4.7 Data collection tool and procedures

Primary data from women of reproductive age group were used in this study and data on socio demographic and economic characteristics follow up history, awareness on FP and reproductive health characteristics were collected using interviewer administered questioners which was adopted from studies done on similar topics. And this tool was used as a data collection tool from the study participants for this study.

Then data has been collected from the study participants by trained data collectors and supervisors by using a face to face interview. Pretest has been done on one of the selected health centers on 32 participants (5%) of the sample population. After correction was done on the questioner according to result of the pretest, one day training was given for all data collectors and supervisors by the principal investigator. Finally, data has been collected after consent was taken from each participant. The questioners were prepared in English and were translated in to Amharic which were then translated back to English to ensure consistency.

Variables

Dependent variable: postpartum family planning use which was dichotomized as “yes” and “no”

Independent variable: The independent variables used in the present study included

- **Socio demographic characteristics** age marital status, educational status, ethnicity, religion, wealth.
- **Awareness on FP** knowledge of FP, source of knowledge, source of FP
- **Follow up history** ANC, PNC, Family planning counseling, and linkage
- **Reproductive health character** fertility desire, resumed sexual intercourse, returned menses.

4.8 Data quality control

Data quality has been assured by using adopted and pretested questionnaires. Data collectors and supervisors were Nurses the Health officers, respectively. And the supervisors checked for data completeness and consistency every day. Furthermore, one day training on the purpose of the study, the tool used, and data collection procedure was given to the data collectors and supervisors. The supervisors directly contacted the principal investigator when they face a problem and for any misunderstanding. Principal investigator was at the health centers every day to check data completeness and consistency.

4.9 Operational definitions

PPFP use – women who had ever used any type of family planning method within the first twelve months after she gave birth to the last child.

Sexual resumption- women who returns to have sexual intercourse after her last birth

Menstrual resumption- women who returns to see menstruation after her last birth

Short birth interval- consecutive births which occurs less than 12months of time.

Postpartum contraceptive Knowledge: women who knew the right and wrong FP method to use during postpartum.

4.10 Data processing and analysis

Data were entered using EPI Info version 7 and analyzed using STATA version 14 software. Odds ratios (OR) with 95% confidence intervals (CI) were used to measure the association between outcome variable (PPFP use) and each independent variable, p value less than 0.05 was used to define statistically significant association.

For the 1st and 2nd objective to describe the magnitude of postpartum family planning use, descriptive statistics like ratio and percentage were used. For the 3rd objective, bivariate analysis has been used to explain association between two factors (dependent and independent variables). Independent variables that have shown associations with dependent variable in the bivariate analysis (those with p value less 0.2) were included in multivariable logistic

regression analysis to determine independent factors associated with postpartum family planning use. The data have been summarized and presented using proper table, graphs and charts as well as text description as necessary.

4.11 Data quality management

Data editing has been carried out regularly through the course of the survey. The collected datum has been coded and entered in the computer using EPI INFO data software after fitting with data entry template. Data cleaning was done by using the same software by running simple frequencies, cross tabulation and sorting to check for missing value and outliers and missed values were rechecked from the questioners. Finally, the cleaned data was imported to STATA version 14 software for analysis

4.12 Ethical consideration

Ethical clearance from REC of AAU was secured. Similarly, a formal letter has been secured from AARHB and the selected sub-cities to sample health centers to start the data collection. The potential risk and benefit of the study has been discussed with the participants and participation was based on their willingness after Verbal informed consent was obtained from each. The participants have been cleared with enough that they can discontinue the interview at any time and the care they get from the facility was not dependable on their participation. It was discussed that all the information that they gave will be kept confidential and names will not be recorded on the form. Privacy was maintained during interview.

4.13 Dissemination of the result

The result of the study will be submitted to School of public health, College of Health Science Addis Ababa University as a partial fulfillment of the requirement for the Master's degree in public health. Copy of the thesis will also be given to Addis Ababa regional health bureau and to organization, institution and individuals who directly or indirectly made an input to this research. An attempt will be done to get it published in a peer reviewed journal to reach as wide research community as possible.

5. Results

In this study, 631 women who met the eligibility criteria were included. However, 623 women responded to the questioners making the response rate 98.7%. The mean age $\pm$ SD of respondents was 27.5 ± 4.9 year. Majority of the respondents which accounts 86.2% ranged from 20-34 years. In the present study, almost all (97.4%) of the respondents are currently married. Seven in ten study participants were followers of Orthodox Christianity followed by Muslims (18.6%) and Protestants (11.1%). Main stream in ethnic group is held by the Amhara which accounts for two hundred eighty-seven. Above (86%) of the respondent which are literate (47.9%) of them attended primary education. More than half (63.2%) of the respondents were house wife followed by (17.7%) private employee. Over one quarter (27.9%) of the respondents belong to poorest wealth status followed by (22.0%) Medium wealth status. (Table4)

Table: 4 Socio Demographic characteristics of study participant's in Addis Ababa, Ethiopia, June 2017. (n=623)

Variable	Frequency	Percentage (%)
Mother's age (years)		
< 20 years	17	2.73
20-34 years	537	86.20
35-49 years	69	11.08
Marital Status		
Currently Married	607	97.4
Currently Unmarried	16	2.6
Religion		
Orthodox Christian	438	70.30
Protestant	69	11.08
Muslim	114	18.62
Ethnicity		
Amhara	287	46.07
Oromo	143	22.95
Tigre	32	5.14
Gurage	106	17.01
SNNP	55	8.83
Mother's education		
Literate	539	86.52
Illiterate	84	13.48
Educational level		
Primary school	258	47.87
Secondary school	181	33.58
Technical and Vocational	38	7.05
Higher Education	62	11.50
Occupational Status		
House Wife	394	63.24
Merchant	17	2.73

Governmental Employee	35	5.62
Private Employee	110	17.66
Unemployed	67	10.75
Wealth Quantile		
poorest	174	27.93
poor	96	15.41
Medium	137	21.99
Rich	107	17.17
Riches	109	17.50

The median number of living children was 1 per women (IQR=4) Three hundred thirty five (53.7%) had only one child followed by 249(39.3%) who has 2 to 3 children. Majority (30.02%) of the respondents were on the first postpartum period which is 6th week to 3rd month. From those respondents (288) who has above 1 child (88.5%) lay on the birth interval of 24- 48 month. Two hundred sixty-six (42.70%) of the respondent did not decide yet their future pregnancy. Two hundred (32.1%) wants to space their pregnancy. More than half (53.7%) of the respondents had regular menses Four hundred fifty-four (72.8%) of them had resumed sexual intercourse.

Maternal health service utilization during last pregnancy

From the total respondent almost all (97.3%) of them had ANC attendance. Among those who had ANC attended, around (63%) received counseling about postpartum family planning. Five hundred fifty-three (88.6%) respondents delivered in governmental institute and (3.4%) of them delivered in their house. From the total respondent three hundred forty-eight (55.9%) of delivery was assisted by midwife. Two hundred fifty-nine (41.6%), (2.6%) delivery was assisted by doctors and traditional birth attendants respectively. Four hundred eighty-nine (78.5%) had PNC service. From these respondents three hundred nineteen (65.2%) of them had received counseling about postpartum family planning. Of the total respondent who accessed child immunization two hundred fifty-one (40.3%) were linked to family planning service.

Table 5. Reproductive health characteristics of respondents in Addis Ababa, Ethiopia, June 2017. (n=623)

Variables	Frequency	Percentage (%)
Living children		
1	335	53.77
2-3	249	39.96
≥4	39	6.26
PP period (month)		
6 th week-3 rd month	187	30.02
4 th -6 th month	169	27.12
7 th -9 th month	106	17.01
10 th -12 th month	161	25.84
Birth Interval (288)		
<24	33	11.46
24-48	255	88.54
Fertility Desire		
Want birth so soon	46	7.38
Spacers	200	32.10
Limiters	87	13.96
Not decided	266	42.70
Pregnant	24	3.85
Resumed Menses		
Yes	335	53.77
No	288	46.23
Resumed Sex		
Yes	454	72.87
No	169	27.13
ANC follow up		
Yes	606	97.27
No	17	2.73
Counseling about FP at ANC(606)		
Yes	386	63.70
No	220	36.30
Place of delivery(623)		
Governmental Institute	553	88.76
Private institute	48	7.70
Home	22	3.53
PNC Follow up		
Yes	489	78.49
No	134	21.51
Counseling about FP at PNC(n=489)		
Yes	319	65.24
No	170	34.76
Immunization visit		
Yes	623	100
No		
Linked to FP at Immunization(623)		
Yes	251	40.29
No	372	59.71

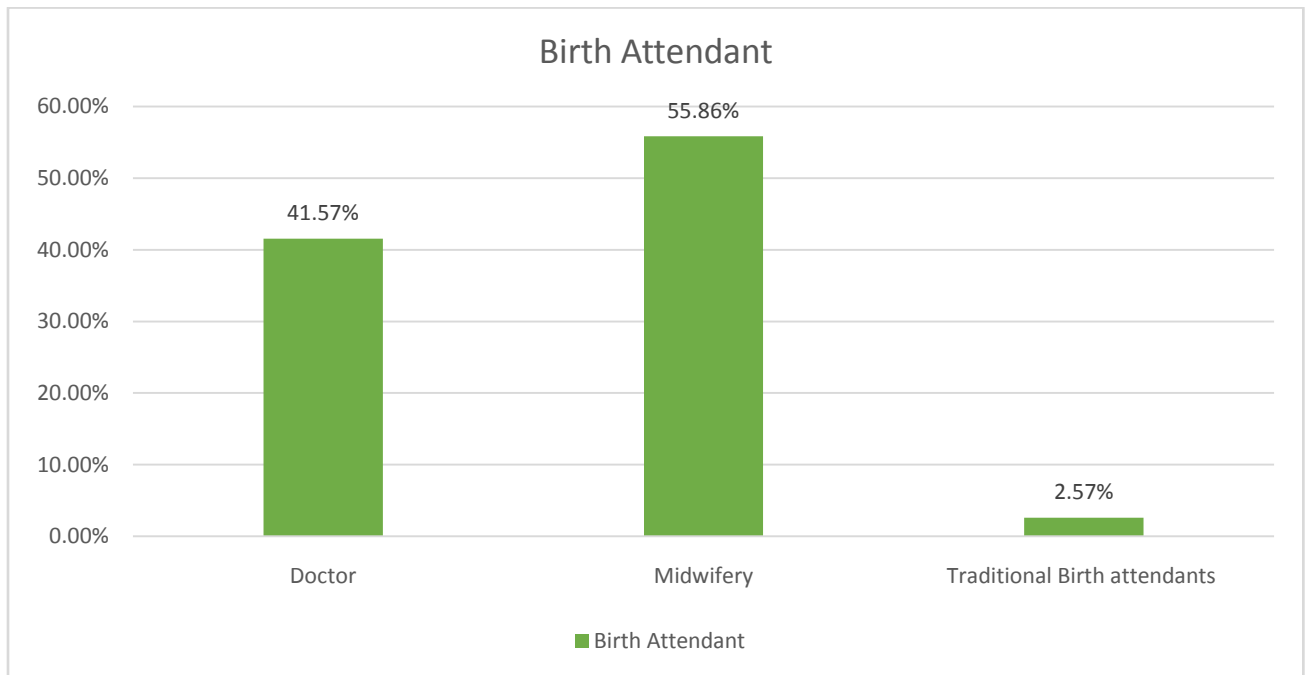


Fig: 3 Birth attendant during postpartum period in Addis Ababa, Ethiopia, June 2017 (n=623)

Knowledge about postpartum family planning

From all respondents five hundred thirty-two (85.4%) knew at least one method of postpartum family planning. From these respondents 415 (78.0%) got information from health professionals and 216(40.6%) and 215(40.41%) had discussion about postpartum family planning with their husbands sometimes and most of the times, respectively while 105 (19.0%) had never discussed about postpartum family planning with their husbands.

Table: 6 Knowledge on PFP, Source of Information and discussion of the study participants among postpartum women living in Addis Ababa June 2017. (n=623)

Variable	Frequency	Percentage (%)
Knowledge on PFP		
Yes	532	85.39
No	91	14.61
Source of information(532)		
Health Professional	415	78.01
Friends	38	7.14
Media	79	14.85
Discussion/Husband		
Sometime	216	40.60
Most of time	215	40.41
Never discuss	105	18.98

Contraceptive use in postpartum period

The use of contraceptive use was found to be 312(50.1%). From these respondents two hundred sixty-five (84.9%) adopted family planning in the first 45 days to 3rd month and 15% of the respondents used within 4th to 7th month. Half of the respondents did not use family planning during postpartum period. Among those who used postpartum family planning, one hundred eighty-nine (60.6%) of the respondents accessed contraceptive from governmental institutions while the other 18.6% got from private hospitals and 20.8% from pharmacies. Current use of family planning method was found to be 45.9%. From the total respondents three hundred twelve of them were not using contraceptive while twenty-five (4.0%) of the respondents were pregnant during data collection period. (table 7) The most widely used contraceptive method in this study was injectable which is 34.6% followed by progesterone only pill which is 22.8% and IUCD ranks third which is 16.7%. The reasons why respondents didn't use postpartum family planning raised was fear of side effect which is 73 (23.5%) followed by women having low perceived risk of getting pregnant because of menses didn't resume. (Figure 6.)

Table: 7 Practice of PPFP among study participants in Addis Ababa, Ethiopia, June 2017.

Variable	Frequency	Percentage (%)
PPFP use in 12 months		
Yes	312	50.08
No	311	49.92
Used FP within(n=312)		
≤3rd month	265	84.94
4th - 6th month	34	10.90
7th - 9th month	11	3.53
10th - 12th month	2	0.64
Source of FP(n=312)		
Governmental health institute	189	60.58
Private Institute	58	18.59
Pharmacy	65	20.83
Current Use of PPFP		
Yes	286	45.91
No	312	50.08
I am pregnant	25	4.01

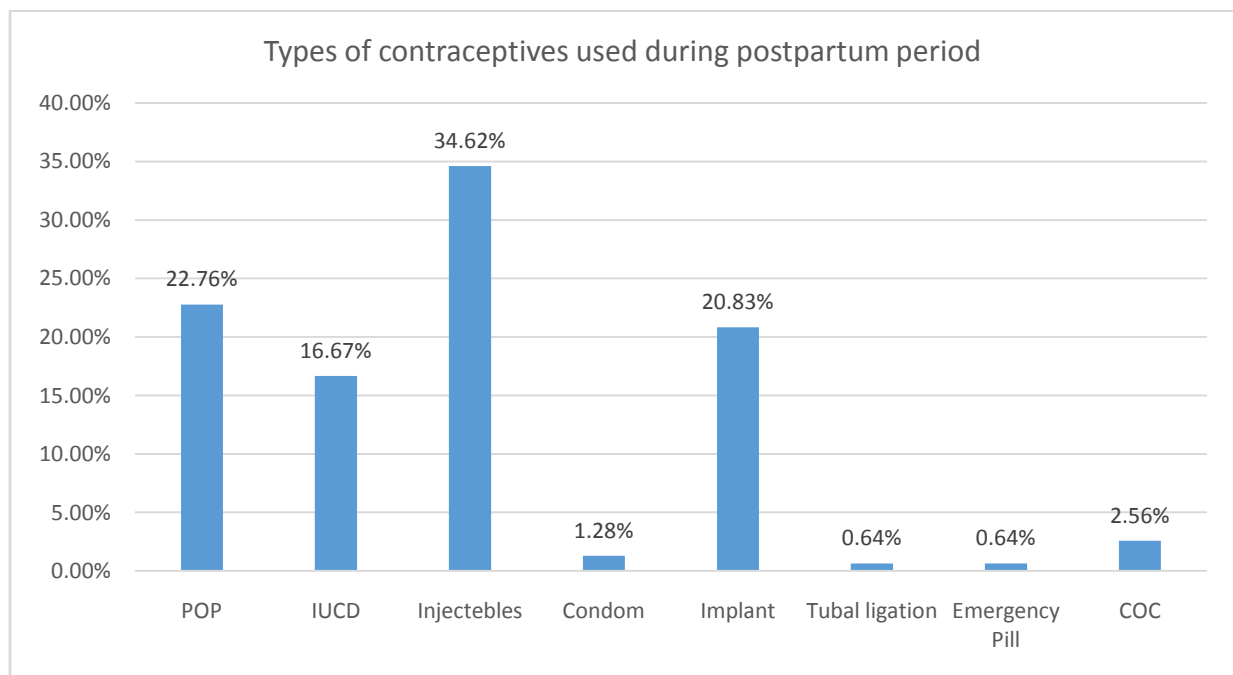


Fig -4: method-mix used during postpartum period in Addis Ababa, Ethiopia, June 2017 (n=312)

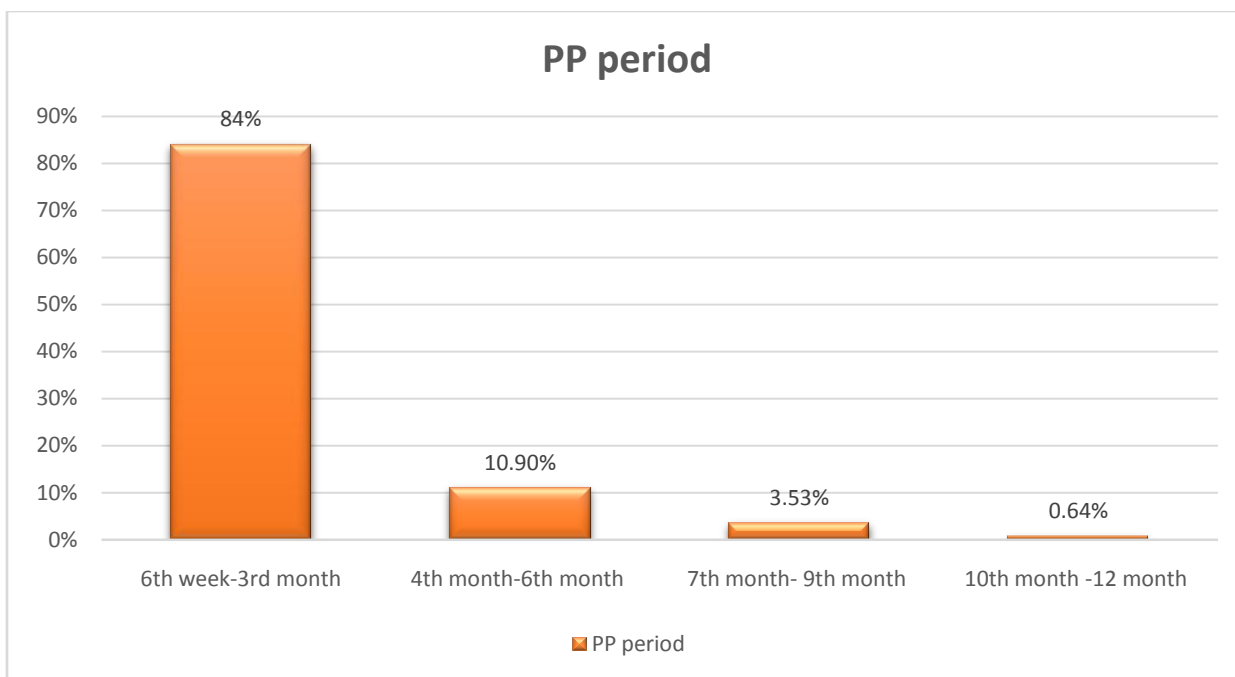


Fig-5: Time duration where participants have used FP during postpartum period among women in Addis Ababa, Ethiopia June 2017(n=312)

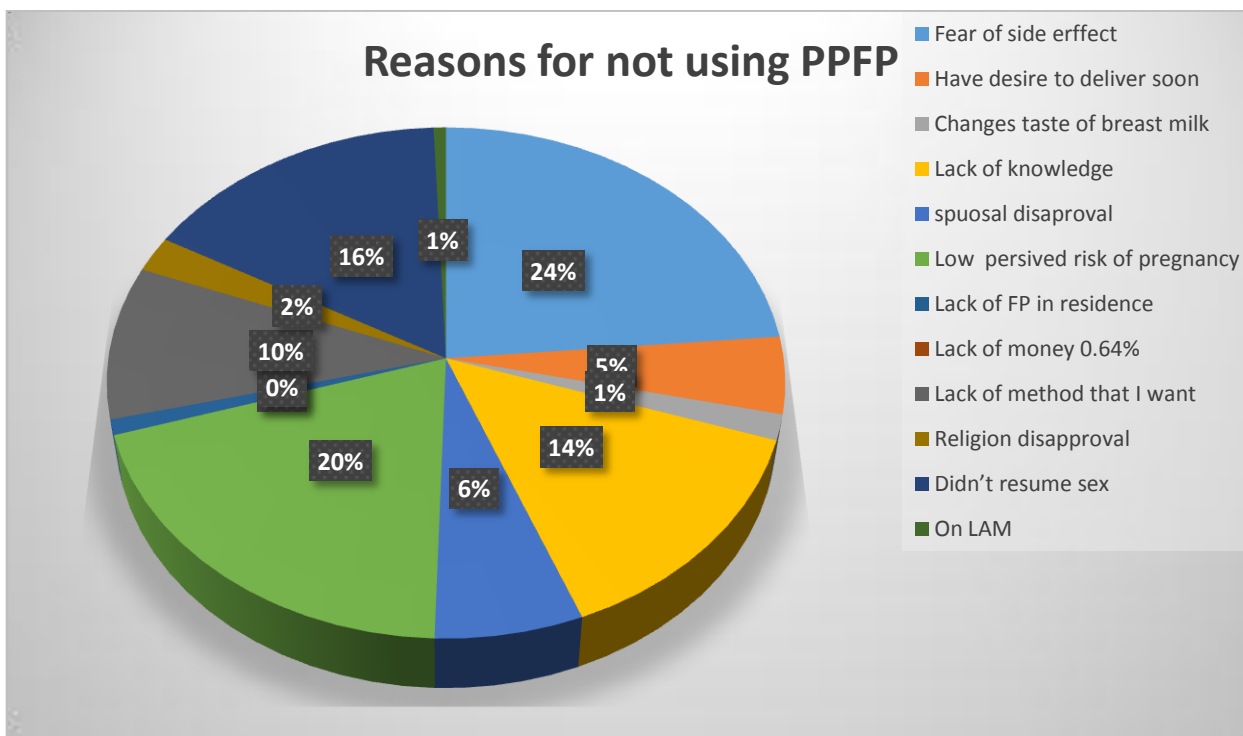


Fig- 6: Reasons for not using modern contraceptive during postpartum period among women in Addis Ababa, Ethiopia June 2017(n=311)

Factors associated with postpartum family planning use

According to the bivariate analysis the reproductive health characteristics of the respondents such as postpartum period, resumed menses, resumed sex and awareness on postpartum family planning discussion with husband and maternal health service utilization like ANC, counseling about postpartum family planning, birth attendance, PNC counseling, linkage from CIM to FP service were significantly associated with outcome variable (PPFP) relative to their respective reference group.

Table below indicates that the odds of PPFP use among women on the 10th -12th is 2.6 times higher than the odds of women on the 6th week to 3 month (p-value < 0.001; COR 2.68; 95% CI (1.74-4.15)). The odds of using PPFP among women who had their regular menses is 2.7 times higher than the odds of women whose menses didn't return (p-value <0.001; COR 2.67; 95%CI (1.93-3.69)). Similarly, the odds of using PPFP among women who had resumed sexual intercourse is 2.6 times higher than the odds of women who didn't resume sexual intercourse (p-value <0.001; COR 2.67; 95% (4.30-10.05)). Regarding to awareness of postpartum family planning the odds of PPFP use among women who had knowledge is 62 times higher than the odds of women who didn't have knowledge (p-value 0.0001; COR 62.13; 95% (15.14-250.0)). Variable knowledge on PPFP was intentionally omitted from being entered into multivariable analysis due to large variation between the knowledgeable and those who are not as this could destabilize the model. And the odds of PPFP use among women who had discussion with their husband is 1.9 times higher than the odds of women who had never had discussion (P-value<0.01; COR; 1.94; 95%CI (1.20-3.14)). The odds of using PPFP among women who had ANC counseling service is 1.5 times higher than the odds of women who didn't have counseling during ANC time (P-value<0.01; COR 1.56; 95%CI (1.12-2.19)). correspondingly the odds of PPFP use among women who had postpartum contraceptive counseling during PNC time is 2.8 times higher than the odds of women who didn't have counseling during PNC time (P-value <0.001; COR 2.81; 95%CI (1.90-4.15)). Moreover the odds of PPFP use among women who were linked to family planning service during

postpartum period is 2.1 times higher than the odds women who were not linked to family planning service during postpartum period (P-value <0.001;COR 2.16;95%CI(1.55-3.01)).

In multivariate analysis resumed menses, resumed sexual intercourse, discussion with husband and counseling about postpartum family planning during PNC were the only associated factors (table 8).Accordingly, having all variables controlled the odds of women who had menses returned were 1.9 times more likely to use postpartum family planning when compared to those women whose menses didn't return (P-value 0.009; AOR 1.94; 95%CI (1.18-3.2)).similarly those women who resumed sexual intercourse were 7.8 time more likely to use postpartum contraceptive when compared to women who didn't resumed sexual intercourse. (P –value 0.0001; AOR 3.0; 95%CI (4.18- 14.74)).And women who had discussion with their husband were 3 times more likely to use postpartum contraceptive when compared to women who didn't had discussion about postpartum contraceptive (P-value0.003; AOR 3.0; 95%CI (1.45- 6.18)).The odds of using postpartum contraceptive among women who had postpartum counseling were 3 times higher when compared to those women who had never had postpartum family planning counseling (P-value 0.0001; AOR3.0; 95%CI (1.71- 5.39)).

Table: 8 Crude and adjusted odds ratios with 95% confidence interval for socio demographic characteristics with contraceptive use during postpartum period in Addis Ababa, June 2017

Characteristics	PPFP Use		COR(95%CI)	AOR(95%CI)
	Yes (n, %)	No (n, %)		
Mother's age (years)				
< 20 years	10[58.8]	7[41.18]	1.0	
20-34 years	269[50.1]	268[49.9]	0.7[0.2-1.8]	
35-49 years	33[47.8]	36[52.1]	0.6[0.2-1.8]	
Marital Status				
Currently Married	308[50.7]	299[49.2]	3.1[0.9-9.6]	1.4[0.3-7.0]
Currently unmarried	4[25]	12[75]	1.0	1.0
Religion				
Orthodox Christian	208[47.1]	230[52.5]	1.0	1.0
Protestant	40[57.9]	29[42.1]	1.5[0.9-2.5]	1.6[0.6-4.4]
Muslim	64[55.1]	52[44.8]	1.3[0.9-2.1]	0.9[0.4-2.1]
Ethnicity				
Amhara	132[46.1]	155[54.1]	1.0	1.0
Oromo	73[51.1]	70[48.9]	1.2[0.8-1.8]	2.2[1.1-4.7]**
Tigre	16[50.1]	16[50]	1.1[0.5-2.4]	0.9[0.3-2.6]
Gurage	59[55.7]	47[44.3]	1.4(0.9-2.3)	1.8[0.8-4.3]
SNNP	32[58.2]	23[41.8]	1.6(0.9-2.9)	1.3[0.4-4.1]
Educational status				
Literate	271[50.3]	268[49.7]	1.1[0.6-1.6]	
Illiterate	41[48.8]	43[51.2]	1.0	
Educational level				
Primary school	136[52.7]	122[47.3]	1.0	1.0
Secondary school	93[51.3]	88[48.6]	0.9(0.6-1.3)	1.1[0.6-2.1]
Technical and Vocational	16[42.1]	22[57.8]	0.6(0.3-1.2)	0.5[0.1-1.6]
Higher Education	26[41.9]	36[58.1]	0.6(0.3-1.1)	0.3[0.1-0.9]
Occupational Status				
House Wife	213[54.1]	181[45.9]	1.0	1.0
Merchant	6[35.2]	11[64.7]	0.4[0.1-1.2]	0.8[0.1-4.9]
GOV'T employee	18[51.4]	17[48.5]	0.8[0.4-1.7]	0.9[0.3-2.6]
Private employee	38[34.5]	72[65.4]	0.4[0.2-0.6]	0.5[0.2-1.1]
Unemployed	37[55.2]	30[44.7]	1.0[0.6-1.7]	0.7[0.2-1.7]
Wealth Quantile				
poorest	79[57.2]	59[42.7]	1.0	1.0
poor	80[55.9]	63[44.1]	0.9[0.5-1.5]	1.1[0.4-2.7]
Medium	54[43.9]	69[56.1]	0.5[0.3-0.9]	0.4[0.1-1.0]
Rich	58[43.9]	74[56.1]	0.5[0.3-0.9]	0.5[0.2-1.2]
Richest	41[47.1]	46[52.8]	0.6[0.3-1.1]	0.8[0.3-2.1]
Number of alive children				
1	164[48.9]	171[51.1]	1.0	
2-3	127[51.0]	122[49]	1.0[0.7-1.5]	
≥4	21[53.9]	18[46.2]	1.2[0.6-2.3]	

Table: 9 Crude and adjusted odds ratios with 95% confidence interval for reproductive health characteristics and MCH service utilization in Addis Ababa, June 2017

Characteristics	PPFP Use		COR(95%CI)	AOR(95%CI)
	Yes(n, %)	No (n, %)		
Postpartum Period (month)				
6 th week-3 rd month	72[38.5]	115[61.5]	1.0	1.0
4 th -6 th month	88[52.1]	81[47.9]	1.7[1.1-2.6] ***	1.4[0.6-3.1]
7 th -9 th month	51[48.1]	55[51.9]	1.4[0.9-2.3]	0.98[0.4-2.2]
10 th -12 th month	101[62.7]	60[37.3]	2.6[1.7-4.1] ***	1.40[0.6-3.1]
Birth Interval				
<24	19[57.6]	14[42.4]	1.0	
24-48	130[51.0]	125[49.0]	0.7[0.3-1.5]	
Fertility Desire				
Want birth so soon	21[45.7]	25[54.3]	1.0	
Spacers	106[53.0]	94[47.0]	1.3[0.7-2.5]	
Limiters	45[51.7]	42[48.3]	1.2[0.6-2.6]	
Not decided	126[47.4]	140[52.6]	1.1[0.5-2.1]	
Currently pregnant	14[58.3]	10[41.7]	1.6[0.6-4.5]	
Menses Return				
Yes	205[61.2]	130[38.8]	2.6[1.9-3.6]***	1.9[1.1-3.2]***
No	107[37.2]	181[62.8]	1.0	1.0
Resume Sexual intercourse				
Yes	279[61.5]	175[38.5]	2.6[4.2-10]***	7.8[4.1-14.7]***
No	33[19.5]	136[80.5]	1.0	1.0
Knowledge of PPFP				
Yes	310[58.3]	222[41.7]	62.1[15.1-255]***	
No	2[2.2]	89[97.8]	1.0	
Source of knowledge				
Health professionals	247[59.5]	168[40.5]	0.9[0.48-1.8]	0.8[0.3-2.1]
Friends	23[60.5]	15[39.5]	1.0	1.0
Media	40[50.6]	39[49.4]	0.6[0.38-1.4]	0.6[0.2-2.1]
Discussion with husband				
Sometime	134[62.0]	82[38.0]	2.1[1.2-3.2]***	3.0[1.4- 6.1]***
Most of time	131[60.9]	84[39.1]	1.9[1.2-3.1]**	2.8[1.2-6.6]
Never discuss	45[44.5]	56[55.5]	1.0	1.0
ANC follow up				
Yes	305[50.3]	301[49.7]	1.4[0.5-3.8]	
No	7[41.2]	10[58.8]	1.0	
Counseling on PPFP at ANC				
Yes	210[54.4]	175[45.6]	1.5[1.1-2.1]**	0.7[0.4-1.4]
No	95[43.2]	125[56.8]	1.0	1.0
Place of delivery				
Governmental hospital	283[51.2]	270[48.8]	0.8[0.3-2.1]	
Private institute	17[35.4]	31[64.6]	0.4[0.1-1.2]	
Home	12[54.6]	10[45.4]	1.0	
Birth attendant				
Doctor	117[45.2]	142[54.8]	0.8[0.3-2.2]	0.7[0.1-9.3]
Midwife /nurse	187[53.7]	161[46.3]	1.1[0.4-3.1]	1.1[0.9-13.2]

Traditional birth attendant	8[50.0]	8[50.0]	1.0	1.0
PNC Follow up				
Yes	241[49.3]	248[50.7]	0.8[0.5-1.2]	
No	71[53.0]	63[47.0]	1.0	
Counseling on PPFP at PNC				
Yes	185[56.0]	134[42.0]	2.8[1.9-4.1]**	3.0[1.7- 5.3]***
No	56[32.9]	114[67.1]	1.0	1.0
Immunization Visit				
Yes	312[50.1]	311[49.9]	2.0[0.5-8.1]	
No			1.0	
Linkage to FP at CI				
Yes	154[61.4]	97[38.6]	2.1[1.5-3.0]**	1.4[0.8-2.5]
No	158[42.5]	214[57.5]	1.0	1.0

N.B * <0.2 ** <0.05 *** <0.01 COR (crude odds ratio) AOR (Adjusted odds ratio)

6. Discussion

This is a facility based study which has investigated the magnitude, types and factors associated with postpartum family planning use among women of reproductive age group within 12-months period in Addis Ababa Ethiopia. In this study menstrual resumption, resumed sex, having discussion with husband and PNC counseling are factors that have significant association with PPFP use. This study has included those women who were pregnant at the time and had given birth within 12 months before the data collection. Based on the analysis done among the participants the magnitude of postpartum family planning use was found to be (50.08%). A facility based study done in Malawi showed that the magnitude of postpartum family planning was found to be (74.6%)(27). This discrepancy could be due to the difference in RH service given in the two different setting. This finding is fairly comparable with a community studies done in North west Ethiopia, Butajira and Bahir Dar(48.4%,47% and 48.8 %) respectively(26, 28, 30).The figure on PPFP in this study was expected to be higher by fact that Addis Ababa has a better health facility and access to FP when compared to those done in Butajira and North west Ethiopia. But this result shows lower figure, this might be due to the study was done among women coming to the facility. The finding on the magnitude shows slightly similar finding with the DHs analysis done in three countries showing Addis Ababa figure (55%). On the health sector transformational plan of Ethiopia the targeted total family planning use is estimated around (55%) by 2020(32).

Based on the finding of this study the widely used types of contraceptive were Injectable followed by implants and POP. A study done in Ghana also have different result showing LAM followed by combined oral contraceptive pill. similarly a finding in Mali also display that LAM and COC pill are the highest in percentage (33) this difference might have occurred due to the urban setting of this study. But a study done in other region of Ethiopia i.e. Debat Gonder, Butajira and north west Gonder(26)(24)(21),have similar pattern like that of the finding in this study. This might be due to the same trend of accessing counseling service on the family planning health sector. A national program strategy address that getting counseling service on ranges of PPFP helps to see and get well-informed and to use the right method of contraceptive . It suggests that LAM, IUD, condoms and sterilization (male or female). Progestogen-only methods are appropriate for women prior to discharge(2).

In reviewing different literatures it's found that factors like socio demographic characteristics, Reproductive health characteristics, awareness on postpartum family planning and utilization of maternal health service have been stated in a different way. Different literatures suggest that a socio demographic characteristic like marital status is significant to PFP use. but in this study significant association were not found this could be majority of the participants lie on the married category of marital status where by this cannot allow to appreciate difference among the two categories.

Factors like resumed menses have significant association. Women whose menses resumed have 1.9 times higher odds of using PFP and it is consistent with a study done in Gonder reporting 8 times higher odds of using PFP CI: (5.2-13.1] (21).this could be explained by the fact that women who had resumed menses consider them self as vulnerable to pregnancy. Objective set by USAID suggests that provision of effective messages to women is prerequisite to use PFP , about pregnancy risk concerning return of menses, including that women have the right to receive a method even if they are not menstruating(34).

Similarly women who have resumed sexual intercourse after delivery have 7.8 times higher odds of using postpartum family planning when compared to those women who didn't started practicing sexual intercourse. The risk of getting pregnant starts from the fact of starting sexual intercourse.

The presents study shows discussion with husband has significant association with postpartum family planning .though those women who had discussion have 3 times higher odds of using postpartum contraceptive use when compared to those women who didn't had discussion. This could be explained by the fact that having discussion on their number of children helps Husband to have role in agreement, support and approve for women to use postpartum contraceptive .this finding is also consistent in the study done in Ghana and north west Ethiopia(33)(24).

Finding On this study revealed that postpartum family planning use has significant association with utilization of maternal health service. Women who had counseling service about contraceptive during postpartum have 3 times higher odds of using postpartum

contraceptive when compared to those women who didn't get counseling. This could be explained by the fact that PP counseling helps women to stay alert and cautious by having information on ranges of contraceptive that they can decide and use right after delivery. This finding is consistent with the study done in Butajira Ethiopia and Nigeria (26, 35). According to Ethiopia postpartum family planning program strategies it suggested that it should ensure pre discharge counseling on integrated maternal newborn service including PPFP by 2020, working on PNC service better from the earlier can increase PPFP users at discharge (36).

In this study it is revealed that magnitude of PPFP use, types and associated factors is consistent enough with those study done in regions of Ethiopia.

6.1 Strength

- The use of well-trained data collectors and close supervision during data collection.
- Large sample size was used in this study to assure representativeness

6.2 Limitation

- The nature of this study being facility based may underestimate the finding due to mothers who did not come for child immunization might have been missed.

7. Conclusion

This study revealed contraceptive use during postpartum period showing Low Use. Injectable and POP were the most widely used types of method used during postpartum period. The use of postpartum contraceptive has significant association with factors like discussion with husband, Menses resumed, sex resumed and PNC counseling.

8. Recommendation

With respect to the findings and objective of this study, recommendation has been made at different level.

Health institution level

- PNC information and couple/partner discussion to support the women on postpartum contraceptive use should be stronger than the earlier one.

- postpartum women on FP use, risk of pregnancy during the postpartum period should be addressed to Mothers during their possible contacts in postnatal . They should make them understand that fertility precedes the return of menses.

Community level

- HEW should encourage couples communication about postpartum family planning.

Researchers

National representative study involving diversified communities in the country is recommended. Especially community based study would be helpful.

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Annex 1

Information sheet and informed consent

Information sheet

Good morning? / Good afternoon? My name is-----I am member of the research team from Addis Ababa University. I am going to ask you few questions about your history of family planning during the previous twelve months after you deliver of the last child. The information we get from you help as to recommend to the concerned body about the improvement of family planning service. You were selected to participate in this study just by chance. The following are some general information about the study.

Title of the study: Assessment of postpartum contraceptive use and its associated factors among women of reproductive age group within 12month time Addis Ababa.

Background of the study Postpartum family planning (PPFP) is the prevention of unintended pregnancy and closely spaced pregnancies through the first 12 months following childbirth. Because most women in developing countries have short birth interval mothers and children are dying. By lengthening the period between birth interval postpartum family planning play significant role in improving maternal and child survival.

Objective of the study: To determine level of postpartum family planning use and identify factors associated among women of reproductive age group in first 12 months after delivery.

Benefit of the study: there is no direct short term benefit for participants. However, it may use the policy makers to evaluate the service and help them to improve it.

Risk of the study: this study has no risk for participants.

Right of the participants: your participation is voluntary base and you are not obligated to answer any question which you do not wish to answer. This interview will take about 15-20 minutes. If you feel discomfort with the interview, please feel free to drop it any time you want.

Confidentiality: your name will not be written in this form and will never be used in connection

We have different types of questions that will be applied below Now I would like to record about your socio demographic characteristics.

Informed consent

I have read this form or it has read to me in the language I understand all conditions stated above.

There for,

1. I agree to participate 2. I do not agree to participate

Name of PI: Zelalem tedla

Address: tell 0913308172

Email: lavelytidla@yahoo.com

Signature-----Date of interview-----time started-----
--time completed-----Result of interview:

1. Complete 2. Respondent not available 3. Refused 4. Partially completed

1. Other_____

Checked by:

Supervisor name -----signature-----date-----

[Annex 2](#)

[English version of the questionnaire](#)

No	Questions	Coding category	Skip
101	In what month and year were you born?	Month ----- Don't know month -----98 Year ----- Don't know year -----98	
102	How old were you at your last birth day? Compare and correct 101 or 102 for consistent	Age in completed years	
103	What is your marital status?	Yes currently married----- 1 Yes currently living with a man----- 2 No not in union -----3 No I'm not married-----4 Widowed-----5 Divorced-----6 Separated -----7	
104	What is your religion?	Orthodox -----1 Catholic -----2 Protestant -----3 Muslim -----4 Other -----99 (specify)	

105	To which ethnic group do you belong?	Amhara-----1 Oromo -----2 Tigre -----3 Gurage -----4 Other ----- 99 (Specify)	
106	Have you ever attended school?	Yes -----1 No-----2	108
107	What is the highest level of school you attended?	Primary-----1 Secondary -----2 Technical/vocational -----3 Higher-----4	
108	What is your occupation?	House wife -----1 Student----- 2 Government Employee-----3 Private-----4 Merchant-----5 Daily labourer----- 6 Unemployed-----7 Other ----- 99 (Specify)	
109	Which material exists in your house?	YES 1 No 2	

		Electricity Radio Television Refrigerator Mobile phone Home phone Chair Bed with cotton Electric Mitade	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
110	Does any member of your family own the following ?(multiple answer is possible)	Bicycle Motor cycle Car	☐ ☐ ☐	
111	Do you have heard animals that you keep?	Cow Horse Sheep	☐ ☐ ☐	
Section 2 : Now I would like to record your reproductive history and preferences				
201	Till now, for how many times have you been pregnant?(Including pregnancy of abortion/still			If the 1 st

	birth)	----- (enter number)	Skip to 204
203	How old is your youngest child now?	----- (enter number)	
204	How many alive children do you have currently?	----- (enter number)	If the 1 st skip to 208
205	What is the time gap between the previous birth and pregnancy of your recent child?	It is my first time -----1months	
208	Did you plan your last birth delivery?	Yes -----1 → No -----2	211
209	Did you use any family planning method?	Yes -----1 → No -----2	211
210	Why didn't you use contraceptives? (Don't read, circle the mentioned one only)	Fear of side effects -----1 Lack of knowledge about FP-----2 Spousal disapproval -----3 I was breast feeding -----4 I was amenoreic and felt I can't get pregnant -----5 Absence of FP method I my residence -----6 Lack of money to get FP-----7 Lack of method that I choose -----8 Other -----99 (specify)	

211	What is the desire about your future pregnancy?	Want to have child before two year-----1 Want to have child after two year -----2 I don't want to have any more children -----3 I didn't decide yet -----4	
Now I am going record about your condition of sexual intercourse and menstruation after you gave birth			
212	Did your menses started flowing after your recent delivery?	Yes -----1 No -----2 → 214	
213	When was the time that it started flowing after your recent delivery?	-----(weeks) (Enter number)	
214	Did you started having intercourse after your recent delivery?	Yes -----1 No -----2 → 301	
215	When was the time that you started having intercourse after your recent delivery?	-----(weeks) (Enter number)	
Section 3: now I would like to record about your knowledge of postpartum family planning			
301	Have you heard about methods of family planning that can be used after delivery?	Yes -----1 → No -----2	401
302	Which FP methods do you know that can be used after delivery? Record all mentioned methods More than one answer is possible	Progestron only pill-----1 Combined oral contraceptive -----2 IUCD-----3 Injectables -----4	

		Male condom -----5 Female condom -----6 Implants -----7 Standard days method -----8 Rhythm method -----9 Female steralization -----10 Male steralization -----11 Lactational amenorrhea(LAM) -----12 Withdrawal method -----13 Emergency contraceptive -----14 All can be used-----15 Other -----99 (Specify)	
303	Which method of FP do you know that can't be used after delivery? Read the method for the mother More than one answer is possible	Progestron only pill-----1 Combined oral contraceptive -----2 IUCD-----3 Injectables -----4 Male condom -----5 Female condom -----6 Implants -----7 Standard days method -----8 Rhythm method -----9 Female steralization -----10 Male steralization -----11 Lactational amenorrhea -----12 Withdrawal method -----13 Emergency contraceptive -----14 All can't be used-----15	

		Other -----99 (Specify)	
304	What are the side effects of using contraceptive after delivery? More than one answer is possible	It changes the amount of breast milk-----1 It changes the taste of breast milk-----2 It has health effect on the baby -----3 It has health effect on the mother-----4 It has no side effect -----5 I don't know-----6 Other -----99 (specify)	
305	Do you think LAM can be used as a FP method alone without using any additional modern method?	Yes-----1 No-----2	
306	What are the conditions that need to be met for LAM to be used as a method of family planning?	Exclusive breast feeding -----1 Fully or nearly full breast feeding-----2 Breast feeding on demand-----3 Infant should be < 6 month old-----4 Menstrual cycle should return -----5 Don't know-----6 Other -----99 (specify)	
307	From where/whom did you get the information about PPFP. More than one answer is possible	Health care professionals-----1 Friends -----2 Media -----3 Others -----99 (specify)	

308	Do you talk about contraceptive with your husband?	Yes every time -----1 sometimes -----2 Rarely..... No we have never discussed -----3 My husband has no knowledge -----4	
Section 4: now I would like to record about your contact history with the health system			
401	Did you have antenatal care service for the recent pregnancy?	Yes -----1 No -----2	403
402	Did you have FP counseling service during the last pregnancy?	Yes -----1 No -----2	
403	Where was the place of your recent delivery?	Governmental hospital -----1 Health center -----2 Privet clinic -----3 Privet hospital -----4 NGO health institute -----5 Other -----99 (specify)	
404	Who assisted you with the delivery? Record all mentioned	Doctor-----1 Nurse/midwife -----2 Other -----99	
405	Did you have postnatal care service for the recent pregnancy?	Yes ----- 1 No ----- 2	407
406	Did you receive counseling about FP during postnatal care?	Yes -----1 No -----2	

407	Did you receive counseling about FP before delivery?	Yes -----1 No -----2	
408	Did you ever come to the health facility to get immunization servicer for your child?	Yes -----1 No -----2 → 501	
409	Did the health professionals in told you to go to FP department.	Yes -----1 No -----2	
Section 5 : These is the last section of the questions now I will record your practice of modern contraceptives in postpartum period			
501	Did you use a modern family planning method within 12 month of time?	Yes ----- 1 No ----- 2 → 505	
502	What type of method did you use?	Pill-----1 IUCD-----2 Injectable -----3 Male condom -----4 Implant -----5 Femal steralization -----6 Male steralization -----7 Emergency pill -----8 Other -----99 (specify)	
503	From where did you get the family planning?	Governmental health facility-----1 Private health facility -----2 NGO facility -----3 Pharmacies-----4 Others -----99 (specify)	

504	When did you start family planning method after delivery?	----- (enter number in weeks)	
505	If you didn't use FP method in the first 12 months of time why didn't you use? More than one answer is possible	Fear of side effect ----- 1 Have desire to deliver soon ----- 2 Fear of change to breast milk by FP-----3 No knowledge about FP----- 4 Spousal disapproval -----5 Felt not at risk because of LAM ----- 6 Lack of FP in my residence ----- 7 Lack of money to get FP ----- 8 Lack of method that I need ----- 9 My religion doesn't allow FP-----10 Other -----99 (specify)	
506	Are you currently doing something or using modern method to delay or avoid pregnancy?	Yes ----- 1 No ----- 2 I am pregnant -----3	

Thank you for your participation

Annex 3

Amharic version of the information sheet and consent

የሚጻፍበት

እንደምን አደርሽ / ዋልሽ? እኔ ሰሜ ----- ሲሆን ከአዲስ አበባ የኒሽርስቲናና ትብብር መሀል አንዱ/ዶ

ነኝ: : ከወለደሽ በሀዋላ በ18 ወራት ውስጥ ስለተጠቀምኸኝ ወይ ቤተሰብ ሆኜ እንዳንድጥ ይታወቅልኝ ወ: : ከአንቺ የምናገኘው ምላሽ የቤተሰብ ሆኜ እንልግሎ ትንሹ ማሻሻል ለሚሆኑ ከተወከሉ ማጠቃለያ ሊደረግልኝ ይችላል: : በቃለ መጠይቁ እንደተሳተፈ የተሟላ ጥሽ ወዲሁ ስለደረሰሽ ነው: : ስለጥናቱ አጠቃላይ መረጃ እንዲኖርሽ ከዚህ በታች ያለው መረጃ ይጠቅምኸኝል: :

የጥናቱ ዕቅድ: -የቤተሰብ ሆኜ ተጠቃሚ ትከውለዳ በሀዋላ ባለወቅቱ 18 ወራት ውስጥ እንዲሠማገብ ተጠቃሚ ትላይልዩ ነ ት የሚመጣክን ያቶች: :

መግቢያ: -ከወለዳ በሀዋላ

በ18 ተከታታይ ወራት ውስጥ እርሳን እንዲከሰት የቤተሰብ ሆኜ ንመጠቀም ስፈልጋል: : እንዲትእና ትከውለዳ ሽርሽር በሀዋላ ከሀላ ትዓመት ባን ስረዜ ውስጥ ካረገ ዘች እስከ ምህን ትልጅ ለደጋላ ይወድቃሉ: : ነገር ግን በዚህ ረዜ ውስጥ የቤተሰብ ሆኜ መጠቀም እና ቶችን ና የህጻናትን ሞት ይቀንሳል: :

የጥናቱ አላማ: -ከወለዳ በሀዋላ በ18 ወራት ውስጥ የቤተሰብ ሆኜ ተጠቃሚ ትመጠንን ለመላካት እና በተጠቃሚ ትላይልዩ ነ ት የሚመጣክን ያቶችን ለመጠቀም: :

የጥናቱ ጥቅም: -ጥናቱ ለተሳታፊዎች

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ላንቺፈላን እና ቀጥተኛ ጥቅም ይኖረዋል ቤተሰብ ሆኜ እንልግሎትን ለማሻሻል ለሚሆኑ ከተወከሉ ማጠቃለያ ሊደረግልኝ ይችላል: :

በጥናቱ የሚጠቀሙት

:

ይህ ጥናት በተሳታፊዎች መካከል ይሆናል ትችግር አይኖረዎትም ተሳታፊነት ትመጠን ትፈረሽ ባን ቺፍታድኝ ነ ትላይ የተመሰረተ ነው: : ይህ ቃለ መጠይቅ ከ 15 ደቂቃ ይደረጋል: : በጥናቱ ነፃነት ትካል ተሰማሽ በማንኛውም ረዜ ማፍረጥ ትችላለሽ: : በዚህ መጠይቅ ላይ ስምሽ እያስፈልግም: :

✓ ይሄንን ፎርም እንብቃለሁ / በማወቅዎ s''s ተነሱ ስለኛል፤ በመሆኑም የጥናቱን ሁኔታ ተረድቻለሁ: : ስለዚህ

1. ተስማምቻለሁ 2. አልተስማምቻለሁም

ዋና አጥኝ: ዘላለም ተደላ

አድራሻ: ስልክ 0913308172

ኢሜል: laveltytedla@yahoo.com

ፊርማ-----

ቃለ-መጠይቁ የተደረገበት ቀን-----

የቃለ መጠይቁ ወጠክ:

1. የተሟላ 2. ተሳታፊው አልተገኘም 3. አልተስማማችም 4. በከፊል የተሟላ

የተቆጣጠሪ ስም-----

ፊርማ ----- ቀን ----- ካልተስማማች ያልተስማማችበትን ምክንያት በመጻፍ ወደ ቀጣይዎ እለፍ/ፊ

Annex 4

Amharic version of questionnaire

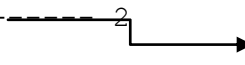
ቁጥር	ጥያቄ	መልስ	ማረጋገጫ
101	የተወለድሽበትን ዓመት እና ወር ልትነግሪኝ ትችላለህ?	ወር ወሩን አላወቀዋል ----- 98 ዓመት ዓመቱን አላወቀዋል ----- 98	
102	የመጨረሻ ልጅሽን ስትወልጁ ስንት ዓመትሽ ነበር? ጥያቄ ቁጥር 101 እና 102 በሚገኙ መረጃዎች ላይ ይጻፉ	አድሜ እና መጡ ዓመት	
103	አሁን ያለሽበት የጋብቻ ሁኔታ ምን ይመስላል?	በህጋዊ አግባብ እየኖርኩኝ ነው-----1 ያለህጋዊ ጋብቻ አብራ እየኖርኩኝ ነው-----2 አይ አብራው አልኖርም -----3 -----4 አይ አሁን አላገባሁም-----5 በህግ ተፋትቻለሁ-----6 ባለቤቴ ሞት-በኛል-----7 -----8 ተለያይቼለሁ-----9 -----10	
104	ሀይማኖት	ኦርቶዶክስ -----1 -----2 ፕሮቴስታንት-----3 -----4 ሌላ ካለ ይጠቅሙ-----5 -----6	
105	ብሄር	አሜ-----1	

		አሮሞ-----2 ትግሬ -----3 ጉራጌ -----4 ሌላ ካለ ይጠቀስ -----99	
106	መጀመሪያ ትምህርት ተምረሽ ታወቂያለሽ;	አዎ-----1 አላወቅም -----2	108
107	ከፍተኛ የትምህርት ደረጃሽ ስንት ነው?	የመጀመሪያ ደረጃ (1-8) -----1 ሁለተኛ ደረጃ (9-12) -----2 የቴክኒክና መጽ -----3 የከፍተኛደረጃ -----4	
108	ስራሽ ምንድን ነው?	የቤት እመቤት -----1 ተማሪ -----2 የመንግስት ሰራተኛ -----3 የግል ሰራተኛ -----4 ነጋዴ -----5 የቀን ሰራተኛ -----6 ሰራ የለኝም -----7 ሌላ ካለ ይጠቀስ -----99	
109	ከምክቅሰው ወሰን የትኛው በቤትሽ ወሰን አለ;	አለ 1 የለም 2 የኤሌክትሪክ መከመር ራዲዮ ቴሌቪዥን ፍሪጅ ተንቀሳቃሽ ስልክ የቤት ስልክ መንበር አልጋ እና ፍራሽ ኤሌክትሪክ ምጣድ	
110	ከቤተሰብሽ መሀል የሚከተሉትን ያለው አለ ወይ; ከአንድ በላይ መልስ መመለስ ይቻላል	ብስክሌት ሞተር ሳይክል መኪና	
ከፍል ሁለት አሁን ደግሞ ስለ ስነ-ተዋልዶ የበፊት ታሪክ እና ምርጫ ጥቂት ጥያቄዎችን ልጣይቅሽ ነው :			

20 1	እስካሁን ድረስ ለምን ያህል ጊዜ አርግዘሻል; (ወርጃን እና በወሊድ ጊዜ የሞተን ጩሮ)	----- ----- ጊዜ (በቁጥር ይቀመጥ)	
20 2	የመጨረሻው ልጅሽን ጩሮ ምን ያህል ልጆችን በሂወት ወልደሻል;	----- (በቁጥር ይቀመጥ)	
20 3	የመጨረሻው ልጅሽ ስንት ዓመት ይሆን ዋል;	----- -----አመት (በቁጥር ይቀመጥ)	
20 4	በአሁኑ ጊዜ ምን ያህል ልጆች በሂወት አለሽ;	----- (በቁጥር ይቀመጥ)	1ልጅ ከሆነ ወደ 208
20 5	በቀድሞው ወሊድሽ እና በመጨረሻው እርግዝናሽ መካከል ምን ያህል የጊዜ እርቀት አለ;	የመጀመሪያዬ ነው----- ----- 1 ከአንድ ዓመት በታች ----- -----2 ከሁለት ዓመት በታች ----- ----- 3 ሁለት ዓመት እና ከዚያ በላይ----- -----4 (በቁጥር ይጠቅስ)	
20 6	ከአንድ ዓመት በታች የሞተብሽ ልጅ አለ; (ወይም ሲወለድ የህይወት ምልክት የነበረው ነገር ግን ሳይቆይ የመት)	አዎ----- 1 አይ -----2	
20 7	ከአንድ ዓመት በታች እስከ አምስት ዓመት የሞተብሽ ልጅ አለ; (≤ 5)	አዎ----- 1 አይ -----2	
20 8	የመጨረሻው እርግዝናሽ የታሰበና/የታቀደ ነበር ወይ;	አዎ-----1 አይ -----2	211
20 9	የቤተሰብ ምጣኔ ተጠቅመሽ ነበር ወይ;	አዎ-----1 አይ -----2	211
21 0	ለምንድን ነው የቤተሰብ ምጣኔ ያልተጠቀሰው;	የጎንዮሽ ጉዳቱን ስለምረራ ----- -----1 ስለቤተሰብ ምጣኔ በቂ እወቀት ስለሌለኝ -----	

	(እባክዎ ሙሉን አያንብቡላት የተጠቀሰውን ብቻ ምልክት ያድርጉ)	-2 ባለቤቱ ስለሚደግፈኝ----- -----3 ጠቅ በማጥባት ላይ ስለነበርኩኝ ----- -----4 ከወለድኩ በሀዋላ የወር አበባዬን ስላላየሁ አረግዛለሁ ብዬ አላስብኩም----- -----5 በአካባቢዬ የቤተሰብ ምጣኔ አገልግሎት የሚሰጥ ተያም ባለሙያ----- -----6 ገንዘብ ስለሌለኝ----- -----7 የሚጥኩትን ዘዴ በማጣቱ ----- -----8 ሀይማኖቴ ስለሚፈቅድልኝ ----- -----9 ሌላ ካለ ይጠቀስ ----- -----99	
21 1	የወደፊት የወሊድ እቅድሽ ምንድን ነው?	ከሁለት ዓመት በፊት መወለድ እፈልጋለሁ-----1 ከሁለት ዓመት በሀዋላ መወለድ እፈልጋለሁ-----2 ምንም ተጨማሪ ልጅ አልፈልግም ----- ---3 ማረጋገጥ አልችልም ----- -----4 አልወሰንኩም ----- -----5 ሌላ ካለ ይጠቀስ ----- -----99	
ከወሊድ በሀዋላ ስላለ የወር አበባ እና የግብረ-ሰጋ ግንኙነት ሁኔታ እንነጋገራለን			
21 2	ከወሊድ በሀዋላ የወር አበባሽን ማቅ ጀምረሻል;	አዎ----- 1 አላየሁም----- 2	214
21 3	ከወሊድ በሀዋላ መቼ ነበር ያየሽው?	----- ----- ቀን/ሳምንት/ወር (በቁጥር ይቀመጥ)	
21 4	ከወሊድ በሀዋላ የግብረ-ሰጋ ግንኙነት ማረጋገጥ ጀምረሻል;	አዎ ----- ----- 1 2 አለጀመርኩም ----- -- 2	301
21 5	ከወሊድ በሀዋላ መቼ ጀመርሽ;	----- ----- ቀን/ሳምንት/ወር (በቁጥር ይቀመጥ)	

ክፍል 3 አሁን ደግሞ ስለ ደህረ ወላድ የቤተሰብ ምጣኔ ያለሽ እወቅት እና ወይይት ላይ ጥያቄዎችን ልጠይቅሽ ነው፡			
30 1	ከወላድ በሀዋላ መወሰድ ያለብሽን ቢያንስ አንድ የቤተሰብ ምጣኔ ዘዴ ተወቂያለሽ ወይ;	አዎ----- 1 አላወቅም ----- 2	401
30 2	ከወላድ በሀዋላ መጠቀም ያለብሽ የትኛውን ዘዴ ነው? (እባክዎ መልሱን አያንብቡላት የተጠቀሰውን ብቻ ምልክት ያድርጉ)	ለአጥቢዎች የሚጠማ ከኒን-----1 በማንኛውም ጊዜ የሚጠማ ከኒን -----2 ሉፕ(በሚፀፀን የሚቀበር) ----- -----3 ሚፈ----- -----4 የወንድ ኮንዶም ----- -----5 ሴት ኮንዶም ----- -----6 በክንድ የሚቀበር ----- -----7 ካላንደር----- -----8 ወር አበባ በሚመጠነው ወቅት ----- 9 ሚፀፀን መከፈል ----- -----10 የወንድ ሚዛን መሳሪያ ----- -----11 ጠቅ በማጥፋት ዘዴ----- -----12 የወንድ ዘር ከሴት ብልት ወጪ ማፍሰስ---13 በ72 ሰዓት የሚወሰድ ከኒን----- --14 ሁሉንም መወሰድ ይቻላል--- ----- 15 ምንም አላወቅም ----- -----16 ለሌ ካለ ይጠቀስ ----- -----99	
30 3	ለወላዱ እናቶች የሚፀሰጥ የወላድ መከላከያ ዘዴ የምታወቁት ምንድን ነው? (እባክዎ መልሱን አያንብቡላት የተጠቀሰውን ብቻ ምልክት ያድርጉ)	ለአጥቢዎች የሚጠማ ከኒን----- --1 በማንኛውም ጊዜ የሚጠማ ከኒን -----2 ሉፕ(በሚፀፀን የሚቀበር) ----- -----3 ሚፈ----- -----4 የወንድ ኮንዶም ----- -----5 ሴት ኮንዶም ----- -----6 በክንድ የሚቀበር -----	

		-----7 ካላንደር----- -----8 የወር አበባ በሚመጠነው ወቅት----- ---9 ሚፀን መከሰት----- -----10 የወንድ ሚመከረው----- -----11 ጠቅ በማጥፋት ዘዴ----- -----12 የወንድ ዘር ከሴት ብልት ወጪ ማጥፋት-----13 በ72 ሰዓት የሚወሰድ ከኒን----- -----14 ሁሉንም መወሰድ አይቻልም----- --15 ምንም አላውቅም----- -----16 ሌላ ካለ ይጠቅሱ----- -----99	
30 4	ከወሊድ በሀዋላ የወሊድ መቆጣጠሪያ የጎንዮሽ ጉዳቱ ምንድን ነው?	የእናት ጠቅ ወተትን ብዛት ይቀንሳል----- 1 የእናት ጠቅወተት ጣዕም ይቀይራል-----2 ልጄ ላይ የጠፍ ችግር ያመጣል----- ---3 የጠፍ ችግር ያስከትልብኛል----- -----4 ምንም ችግር የለውም----- -----5 ምንም አላውቅም----- -----6 ሌላ ካለ ይጠቅሱ----- -----7	
30 5	ሌላ የመከላከያ ዘዴን ሳይወሰድ ጠቅ የመጥፋት ዘዴን እንደ መከላከያ መጠቀም ይቻላል ወይ;	አዎ----- 1 አይቻልም----- 2 	307
30 6	ጠቅ የማጥፋት ዘዴን ለመጠቀም መመላት ያለበት ቅድመ ሁኔታዎች ምን ይመስላሉ?	ያለ ምንም አጋዥ ምግብ የእናት ጠቅን ብቻ መመገብ-----1 በከፊል የእናት ጠቅን ብቻ መመገብ----- 2 እንደ አስፈላጊነቱ የእናት ጠቅን መመገብ-----3 ህፃኑ ከ 6 ወር በታች እስከሆነ ድረስ----- --4 የወር አበባ እስካላመጣ ድረስ----- -----5	

		ለሌ ካለ ይጠቀስ----- -----99	
30 7	ከወሊድ በሀዋላ ስለሚወሰድ የቤተሰብ ምጣኔ መረጃ ከየት አገኝሽ; (ከአንድ በላይ ሜሰከ መከፈት ይቻላል)	ከጠፍ ባለሙያ-----1 ከጓደኛ----- -2 ከመኖሪያ ብዙሀን-----3 ለሌ ካለ ይጠቀስ-----99	
30 8	ከባለቤትሽ ጋር ስለ ቤተሰብ ምጣኔ ዘዴዎች ተወያይተሽ ታወቂያለሽ;	አዎ አንድ/ሁለት ጊዜ ብቻ ተወያይተናል-----1 ብዙ ጊዜ አንወያያለን----- -----2 በፍፁም ተወያይቼ አላወቅም----- -----3 ባለቤቴ እወቀቱ የለውም----- -----4 ለሌ ካለ ይጠቀስ----- -----99	
ክፍል 4: በእናቶች እና በህፃናት የጠፍ ክትትል ወቅት ከጠፍ ባለሙያ ጋር ስለሚደረግ ወይይት እንዲሁም በዛ ወቅት ስለሚኖር የጠፍ ክትትል ልጣይቅሽ ነው፡፡			
40 1	ለሚጠፋሽው እርግዝናሽ የቅድመ ወሊድ ክትትል ነበረሽ;	አዎ----- -----1 አልነበረኝም----- ---2	403
40 2	የቅድመ ወሊድ ክትትል ወቅት ስለ ቤተሰብ ምጣኔ የምክር አገልግሎት አግኝተሻል;	አዎ-----1 አላገኘሁም-----2	
40 3	የት ነበረ የወለድሽው;	በመግለጫ ሆስፒታል-----1 በጠፍ ጣቢያ----- ---2 በግል ክለኒክ----- ---3 በግል ሆስፒታል----- -4 በቤት ወስጥ----- ---5 ለሌ ካለ ይጠቀስ----- -99	
40 4	ያዋለደሽ ማን ነበር;	ዶክተር----- 1 አዋላጅ ነርስ/ነርስ-----2 ከዘመዶቹ አንዱ-----3 ባልሰለጠነች ባህላዊ አዋላጅ-----4 በሰለጠነች ባህላዊ አዋላጅ-----5 ለሌ ካለ ይጠቀስ-----99	
40 5	የደህረ ወሊድ ክትትል ነበረሽ ወይ;	አዎ----- -1 አልነበረኝም----- -----2	407
40	ከወሊድ በሀዋላ ስለ ቤተሰብ ምጣኔ	አዎ----- --1 አላገኘሁም-----2	

6	የምክርአገልግሎት አግኝተሻል?		
40 7	ልጅሽን ለማከተብ ወደ ጠፍ ተሰም ሄደሽ ነበር ወይ;	አዎ----- 1 አይ----- 2	501
40 8	ልጅሽን ለማከተብ ወደ ጠፍ ተሰም ስትመጪ ወደ ቤተሰብ ምጣጤ አገልግሎት ክፍል በባለሙያ ተልከሻል ወይ;	አዎ----- 1 አልተላከም -----2	
ክፍል 5: ከወሊድ በሀዋላ ስለሚጸከድ የቤተሰብ ምጣጤ አጠቃቀም እና ትግበራ ጥያቄዎችን ልጦይቅሽ ነው			
50 1	ከወሊድ በሀዋላ ባለው አንድ ዓመት ውስጥ የቤተሰብ ምጣጤ ተጠቅመሻል;	አዎ-----1 አልተጠቀም-----2	505
50 2	የተጠቀምሽው የቤተሰብ ምጣጤ ዘዴ የትኛው አይነት ነው;	ለአጥቢዎች የሚጠከኑ -----1 ሉፕ (በሚፀን የሚቀበር) -----2 ሚፈ----- -----3 የወንድ ኮንደም----- -----4 በክንድ የሚቀበር ----- -----5 ሚፀን ማቆዋጠር ዘዴ-----6 የወንድ ምረ መከላከያ----- 7 በ72 ሰዓት ውስጥ የሚጸከድ ከኒን-----8 ማንኛውም የሚጠመን ከኒን-----9 ሌላ ካለይጠቅስ ----- --99	
50 3	የቤተሰብ ምጣጤን ከየት አገኝሽ;	ከመግስት ሆስፒታል----- 1 ከጠፍ ጣቢያ ----- -----2 ከግል ክለኒክ----- -----3 መግስታዊ ካልሆኑ ተቁዋሚ-----4 ከመደሀኒት ቤት ----- -----5 ሌላ ካለ ይጠቅስ----- -----99	
50 4	ከወሊድ በሀዋላ የቤተሰብ ምጣጤ ዘዴን መቼ መጠቀም ጀመርሽ;	----- -ሳምንት/ቀን/ወር (በቁጥር ይቀመጡ)	506

50 5	ከወሊድ በሀዋላ የቤተሰብ ምጣኔን ለምን እንዳልተጠቀምሽ ልትነግሪኝ ትችያለሽ;	የጎንዮሽ ጉዳቱን ስለምፈራ----- -----1 በቶሎ እንደገና መወሊድ ስለፈለኩኝ----- --2 የጠፍ ወተትን ጣም ይቀይረዋል----- --3 ስለቤተሰብ ምጣኔ በቂ እወቅት ስለሌለኝ----- 4 ባለቤቴ ስለማይደግፈኝ----- -----5 ከወለድኩኝ በሀዋላ የወር አበባዬን ስላላየሁ አረግዛለሁ ብዬ አላሰብኩም----- -6 በአካባቢዬ የቤተሰብ ምጣኔ አገልግሎት የሚሰጥ ተፈጥሮ ስለሌለ----- -----7 ገንዘብ ስለሌለኝ----- -----8 የሚጥኩትን ዘዴ በማጣቴ----- -----9 ሀይማኖቴ ስለማይፈቅድልኝ ----- ----10 ሌላ ካለ ይጠቀስ ----- -----99	
50 6	አሁን ላይ የቤተሰብ ምጣኔን እየተጠቀምሽ; ነው;	አዎ----- ---1 አልጠቀምም-----2 ነፍሰጠፎ ነኝ-----3	

ስለትብብረዎት እጅግ በጣም አመክንዮአለሁ :

