

# Unmet Need for Family Planning and Related Factors among Currently Married Women in Sibu Sire District, 2016

Lemessa Terefe Duressa<sup>1\*</sup>, Alemayehu Getahun<sup>2</sup>, Tesfaye Regassa<sup>2</sup>, Zalalem Kaba Babure<sup>3</sup> and Kassahun Tegegne Bidu<sup>4</sup>

<sup>1</sup>Sire Primary Hospital, East Wollega Zone, Oromia, Western Ethiopia

<sup>2</sup>Department of Public Health College of Medical and Health Sciences, Wollega University, Oromia, Western Ethiopia

<sup>3</sup>East Wollega Zonal Health Office, Nekemte, Western Ethiopia

<sup>4</sup>USAID/JSI Transform: Primary HealthCare Project, East Wollega Zone, Nekemte, Western Ethiopia

\*Corresponding author: Lemessa Terefe Duressa, Chief Executive Officer (CEO), Sire Primary Hospital, East Wollega Zone, Oromia, Western Ethiopia, Tel: +251932947291; E-mail: lterefe2018@gmail.com

Received date: October 03, 2018; Accepted date: October 12, 2018; Published date: November 20, 2018

Copyright: © 2018 Duressa LT, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## Abstract

**Background:** About 24% of married woman have unmet need for Family Planning in Sub-Saharan Africa and 25.3% of currently married women had unmet need for family planning in Ethiopia.

**Objective:** To assess the level of unmet need for family planning and related factors among currently married 15-49 years old women in Sibu Sire District, November 2016.

**Methods:** A cross-sectional study was conducted. Multi-stage sampling technique to select 616 study units was used. Qualitative data was collected by focus group discussion and in-depth interview. Quantitative data was entered into SPSS version 20 and transcripts of the recorded discussions have been coded and analyzed manually. A p-value<0.05 was considered as statistically significant.

**Result:** Total unmet need for family planning among study group was 20.94%, and (13.14%, 7.8% for spacing and limiting respectively). Educational status of respondent (AOR=2.6, 95% CI: 1.3, 5.1), visiting health facility (AOR=3.6, 95% CI:1.9, 6.8), visited by health care workers at their home (AOR=3.7, 95% CI: 2.1, 7.3), attitude of respondents towards Family Planning use (AOR=9.1 95% CI: 4.9, 16.5), discussion with partners about Family planning (AOR=2.9, 95% CI: 4.1, 5.7), number of living children (AOR=5.5, 95% CI: 1.2, 25.1) and exposure to medias (radio/television) (AOR=4.7 95% CI: 2.8, 8.5) were predictors of unmet need for Family Planning.

**Conclusion and Recommendations:** The total unmet need for family planning is still high. Integrating family planning with other health care service in health facility and emphasizing on delivery of important messages through public media were recommended activities to overpass the gap demand and unmet need for family planning.

**Keywords:** Family planning; Communication; Pregnancy; Amenorrhea; Reproductive health

**Abbreviations** CPR: Contraceptive Prevalence Rate; DHS: Demographic and Health Survey; EDHS: Ethiopian Demographic and Health Survey; IEC: Information, Education and Communication; FP: Family Planning; IUCD: Intra-Uterine Contraceptive Device; PHCU: Primary Health Care Unit; MDG: Millennium Development Goal; LAM: Lactational Amenorrhea Method; SD: Standard Deviation

## Introduction

Maternal mortality reduction relies on preventing unintended pregnancy through Family Planning (FP) and Reproductive Health (RH) [1]. Promotion of family planning has potential to reduce poverty, hunger, avert 32% of all maternal deaths and nearly 10% of childhood deaths [2]. Contraceptive Prevalence Rate (CPR) and unmet need for FP are key indicators for determining the level of improvements in access to reproductive health [1]. Sub-Saharan Africa experience the highest levels of unmet need where 24% of married

woman have need for FP but are not using FP [3,4]. Similarly, in 2011 Ethiopia unmet need for FP is 25.3%, 16.3% for spacing and 9% for limiting [5]. Globally, each year, nearly 287,000 women die while another 50 million suffer illness and disability from complications of pregnancy and child birth. Ethiopia is one among six countries that contribute to about 50% of the maternal deaths along with India, Nigeria, Pakistan, Afghanistan and the DR/Congo, by contributing 676 maternal deaths per 100,000 live births [6].

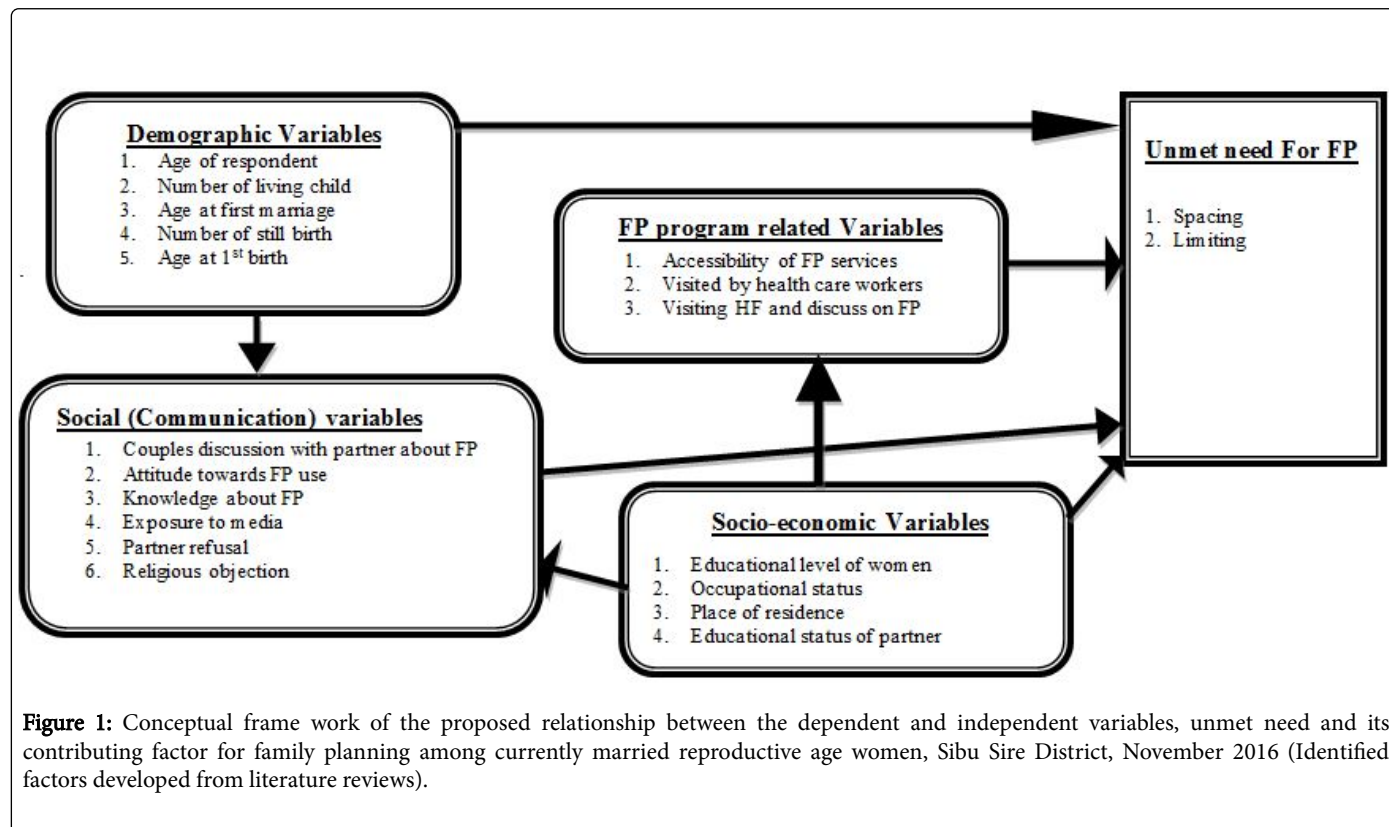
United Nation for Population Agency (UNFPA) estimates that one in three maternal deaths can be avoided if all women have met need for family planning services. When women are able to control when and how many children they have, the health of the mother and child improves substantially [7].

There are varieties of factors responsible for high level unmet needs of family planning (Figure 1). According to WHO (World Health Organization) the highlighted reasons are: limited choice of family planning methods, limited access to contraception, poorness, fear or experience of having side-effects, cultural or religious opposition, Poor quality of available family planning services and gender based barriers

[8]. In Ethiopia, there is limitation of studies that were conducted to assess level of unmet need and related factors among currently married 15-49 years old.

Specifically, this District was not assessed at all. Knowing the level of unmet need for family planning and related factors is essential to use for advocacy, formulate plans, implement strategies, monitoring of

family planning program in the study area. It can also be valuable to the organization working in family planning program to conduct necessary programs adjustment to meet family planning need study group. The objective of this study is to assess the level of unmet need for family planning and associated factors among 15-49 years currently married women in Sibu Sire District in November 2016.



**Figure 1:** Conceptual frame work of the proposed relationship between the dependent and independent variables, unmet need and its contributing factor for family planning among currently married reproductive age women, Sibu Sire District, November 2016 (Identified factors developed from literature reviews).

## Methods and Materials

### Study area and period

Sibu Sire is one of 17 East Wollega Zone Districts located in Western Ethiopia about 281 km from Addis Abeba (Capital town of Ethiopia). The district has divided in to 18 rural and 3 urban Kebeles. Female of 15-49 years age group comprises 22% of total population. The study was conducted from November 15-25/2016.

### Study design

A cross-sectional survey using quantitative and qualitative data collection techniques was employed.

### Source population

**Quantitative study:** All currently married 15-49 years old women in the district were source population.

**Qualitative study (FGD and In-depth interview):** Currently married 15-49 years old women and their partners in the district were source population of focus group discussion. District family planning expert, family planning provider in health centers and health extension workers in the district were source population for in-depth interview.

### Study population

**Quantitative study:** Currently married 15-49 years old women in selected Kebeles were study population.

**Qualitative study:** Currently married 15-49 years old women and their partners in selected Kebeles were study population for FGD. Targeted health institutions family planning provider and district health office family planning focal persons in the district for in-depth interview were study population identified for qualitative part of the study.

### Study unit

**Quantitative study:** Currently married 15-49 years selected as study participant was study subject.

**Qualitative study:** Each currently married 15-49 years and partners selected as study participant for FGD was study subject. Family planning service provider in targeted health facility and district health office FP focal person selected as study participant was study subject of in-depth interview.

### Inclusion and exclusion criteria

**Inclusion criteria:** Currently married 15-49 years women who lived for at least six-month in study area were included in the study.

**Exclusion criteria:** Those women who were seriously sick and unable to respond were excluded from the study.

### Sample size determination

**Quantitative method:** Formula for sample size is that used for measuring single population proportion.

$$n = Z(\alpha/2)^2(P-P)/d^2$$

P=Proportion, d=Degree of precision, Z=Reliability coefficient, P=25.3% (proportion of unmet need for FP, with 95% Confidence Interval (C.I.)). This is 2011 EDHS result which is relatively similar with study result conducted recently at [4], Enemay District, North West Ethiopia, 2014, which was 25.6% [9-11].

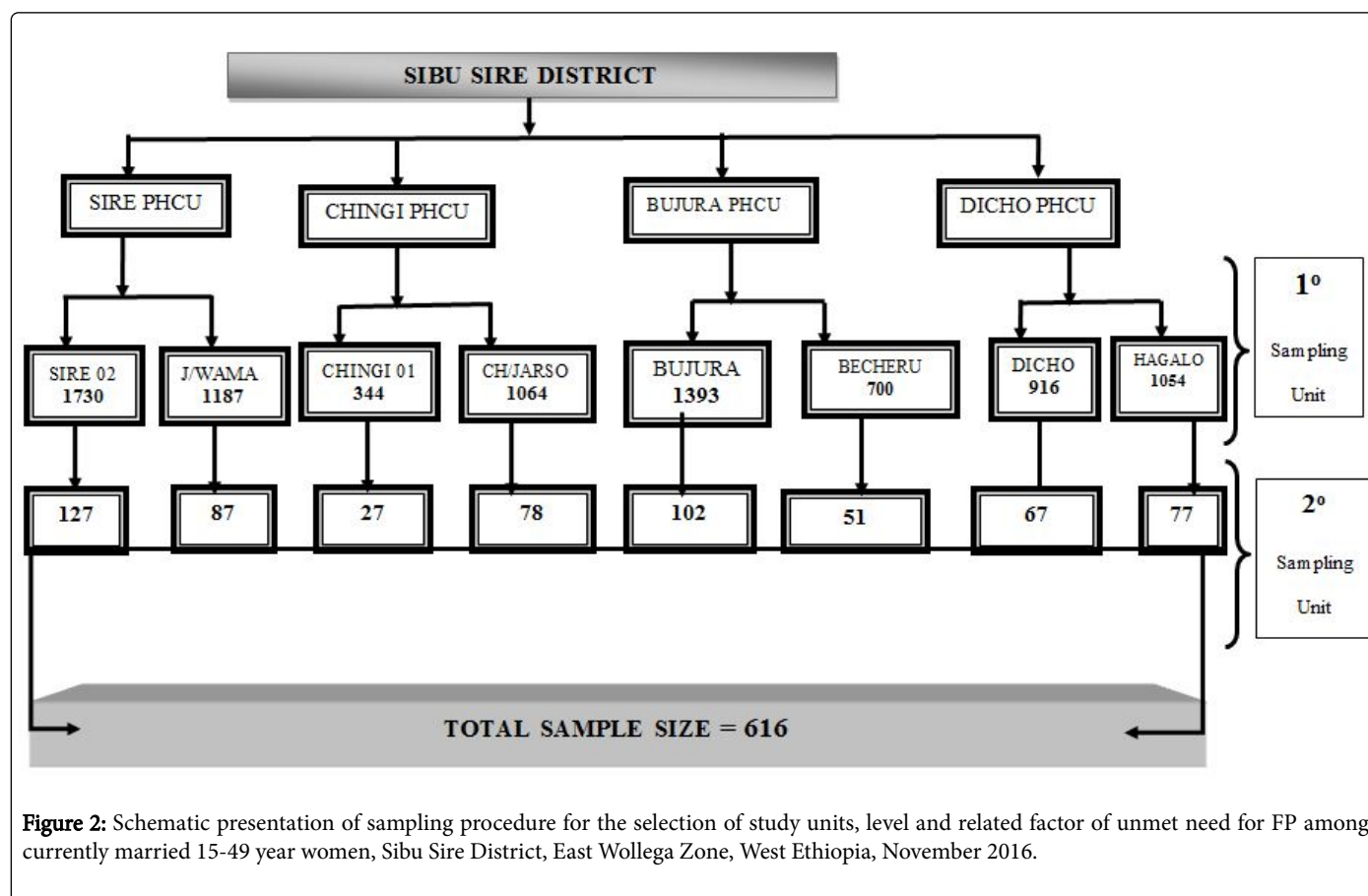
$$n = (1.96)^2(0.256)(0.744)/(0.05)^2 = 293 \text{ [Sample size=293; Design effect } 2 \geq 293 \times 2 = 586, 5\% \text{ for non-response rate=30]}$$

Total Sample Size=616 currently married women.

**Qualitative method:** The number of FGD conducted was eight (four men and four women groups) one group in each Primary Healthcare Unit (PHCU) for both men and women. Each FGD had consists average of 10 participants. Key informant interview has been conducted with nine key informants.

### Pretesting the questionnaire

Pre-test was done on 5% of the total sample size with all research teams at other than selected Kebeles in order to make them able to understand and modify unclear idea against study participants' culture and value questions. Necessary amendment was made to ensure their consistency prior to actual collection of data.



**Figure 2:** Schematic presentation of sampling procedure for the selection of study units, level and related factor of unmet need for FP among currently married 15-49 year women, Sibu Sire District, East Wollega Zone, West Ethiopia, November 2016.

### Sampling procedure

**Quantitative study:** Two stage sampling technique has been used to select 616 currently married 15-49 years' age women in the district. First eight Kebeles were selected from total of 22 Kebeles in the District by simple random sampling (lottery) method. Then samples were selected from each of the eight Kebeles by systematic sampling method among households. If selected house hold has no eligible women the next house hold with eligible women was used, in case of presence of more than one eligible in the house found, lottery method was used to choose one eligible. Similarly, in case of absence of eligible women from house hold two times revisit was used. Keeping the class interval (sampling fraction k=13) all 616 eligible women were included. Sample

sizes of each selected Kebeles were proportional to their currently married 15-49 years old women (Figure 2).

**Qualitative study:** Participants were selected purposively based on who can give the most and best information about contraceptive practice among different groups of currently married 15-49 years old women and men independently. District FP Program expert, targeted Health centers' FP providers and one of two Health Extension Workers by lottery method for in-depth interview was used.

## Data collection tool and procedure

**Quantitative data (Structured questionnaire):** Quantitative data was collected using structured interviewer administered questionnaire with five parts adopted by reviewing literatures (EDHS) and suited to the local situation. It was prepared first in English and translated to Afan Oromo (local language) used to collect data.

**Qualitative data (FGD and in-depth interview guide):** Focus Group Discussions (FGDs) were conducted with married 15-49 years old women and men independently about unmet need for FP, using a FGD guide. Focus group discussions was conducted to probe the phenomena of contraceptive utilization within the society and unmet for FP. Each FGD consist an average of 10 participants. Participants were selected purposively based on who can give the most and best information about contraceptive utilization among different groups of currently married 15-49 years old women and married men independently. The numbers of FGDs were four for women and four for men independently.

Participants were first given number, a code and their characteristics registered (age, sex, educational status (all necessary characteristics of each participant). At each time the participant interested to give an idea first s/he has to call the number or her code. Notes on points of discussion were taken in addition to tape recording. In-depth interview was conducted with key informants at facility and District health office level.

## Data collectors

Qualitative data was collected by 8 trained female 10<sup>th</sup>/12<sup>th</sup> grade complete and was supervised by 3 trained BSc. public health professionals. The discussions were moderated by trained two female and two male public health professionals independently one in each group as note takers.

## Operational Definitions

**Unmet need for spacing:** Includes currently married women who are fecund and not using FP and who say they want to wait >2 years for their next birth, or who say they are unsure whether they want another child, or who want another child but are unsure when to have the child or pregnant women whose current pregnancy was mistimed. It also includes amenorrhea women whose last birth was mistimed.

**Unmet for limiting:** Is a currently married woman who is fecund and not using FP and who say they do not want another child, pregnant women whose current pregnancy is unwanted or who are undecided whether they want another child. It also includes amenorrhea women whose last birth was unwanted.

**Total unmet need:** The combination of women with unmet need for spacing and limiting.

**Attitude:** Is a feeling or a way of thinking, for purposes of this study towards FP use and issues concerning FP.

**Unfavorable attitude:** A woman who has cumulative sum value for 6 attitudinal statements response was lower than summed median score value of all respondents.

**Favorable attitude:** A woman who has cumulative sum value for 6 attitudinal questions response was greater than or equal to the summed median score value of all respondents.

**In-fecund:** Women who are married/give birth 5+ years ago, had no child in the past 5 years and never used contraception; or said "can't get pregnant" on wanting of future children; or said "menopause/hysterectomy" on reason for not using contraception; or response time since last period is  $\geq 6$  months or "never menstruated".

**Post-partum amenorrhea:** Refers to the interval between child birth and resumption of menstruation up to 0-23 months, a period during which a woman is temporarily in fecund.

**Comprehensive knowledge of family planning:** Is knowledge of family planning assessed by asking seven main knowledge assessment questions.

**Good knowledge:** A woman who has cumulative sum value for 7 knowledge statements response was greater than summed median score value of all respondents.

**Poor knowledge:** A woman who has cumulative sum value for 7 knowledge statements response was less or equal to summed median score value of all respondents.

## Study Variables

### Dependent variables

Unmet need for family planning.

### Independent variables

- Demographic variables (age, number of living children, age at 1st marriage, age at 1<sup>st</sup> birth, number of abortion, number still birth)
- Socio-economic characteristics (Educational status of women and their partners, Residence, Occupational status of respondents)
- FP program related variable (Accessibility of FP service, Visit health facility/visited by health worker and discuss about FP)
- Social (Communication) related variables (Knowledge of FP, Spousal discussion, attitude towards family planning use, Opposition from spouse/Family)

## Data Processing and Analysis

### Quantitative data

The collected data was coded, cleaned and fed in to SPSS version 20 statistical software. Simple descriptive analysis was done to explore levels of contraceptive use, unmet need for family planning, attitude and practice, socio-economic status and demographic characteristics of respondents. Bivariate analysis was used to test association of each independent variable and identify the candidate variable for multivariate at  $p < 0.2$ . In multivariate logistic regression odds ratio and 95% CI with p-value less than 0.05 statistical significant was used for data presentation.

### Qualitative data

Focus group discussions were recorded as sound files using tape recorder and translated to English and transcribed to text files. Translated transcript of the recorded discussions was coded and analyzed manually. To check the internal consistency, data from the quantitative part was used to triangulate with the qualitative results. Similarly, data received through in-depth interview was collected transcribed and analyzed manually.

### Data quality management

Pre-test was done on 5% of total sample size with all research teams at other than selected kebele in order to familiarize interviewers with questionnaire and modify some unclear questions. Necessary amendment was made to ensure their consistency prior to actual collection of data. The English version questionnaire was translated in to local language Afan Oromo and then back to English to maintain its consistency for actual data collection purpose with great emphasis given to local context.

After detail training of data collectors and supervisor a field work manual was prepared and given to them. Furthermore, the principal investigator and supervisor gave feedback and correction on daily basis for the data collectors before they deployed to the next day field. Completeness, accuracy, and clarity of the collected data were checked

carefully. Any errors, ambiguity, incompleteness encountered were addressed on the following day before starting next day activities.

### Results

#### Background characteristics of study subjects

Demographic and socio-economic characteristics of the study participants: Six hundred sixteen (100%) married women had responded for the interviews. Seventy-five percent of respondents were from rural and 25% from urban areas of the District. Median age was 28.0 (SD ± 6.30) and 32.0 (SD ± 7.7) for respondents and their partners respectively. Five hundred fifty-two (89.6%) of respondents were Oromo ethnic group and 58.8% were protestant religion followers (Table 1).

Variables		Frequency (%)
Residence	Rural	462 (75.0)
	Urban	154 (25.0)
Age group respondents (n=616)	15-19 Years	21 (3.40)
	20-24 Years	124 (20.1)
	25-29 Years	193 (31.3)
	30-34 Years	123 (20.0)
	35-39 Years	105 (17.0)
	40-44 Years	46 (7.50)
	45-49 Years	4 (0.60)
Religion (n=616)	Protestant	362 (58.8)
	Orthodox	212 (34.4)
	Muslim	38 (6.20)
	Others (Wakefata)	4 (0.60)
Ethnicity (n=616)	Oromo	552(89.6)
	Amhara	56 (9.10)
	Gurage	4 (0.60)
	Tigre	4 (0.60)
Educational status of respondent (n=616)	Cannot read and write	249 (40.4)
	Elementary School	272 (44.2)
	High school and preparatory school (9-12)	53 (8.60)
	Certificate (Level/Diploma) and above	42 (6.80)
Educational status of partners (n=616)	Cannot read and write	158 (25.6)
	Elementary school	249 (40.4)
	High school and preparatory school (9-12)	115 (18.7)
	Certificate (Level/Diploma) and above	94 (15.3)
Occupation of respondents (n=616)	House wife	430 (69.8)

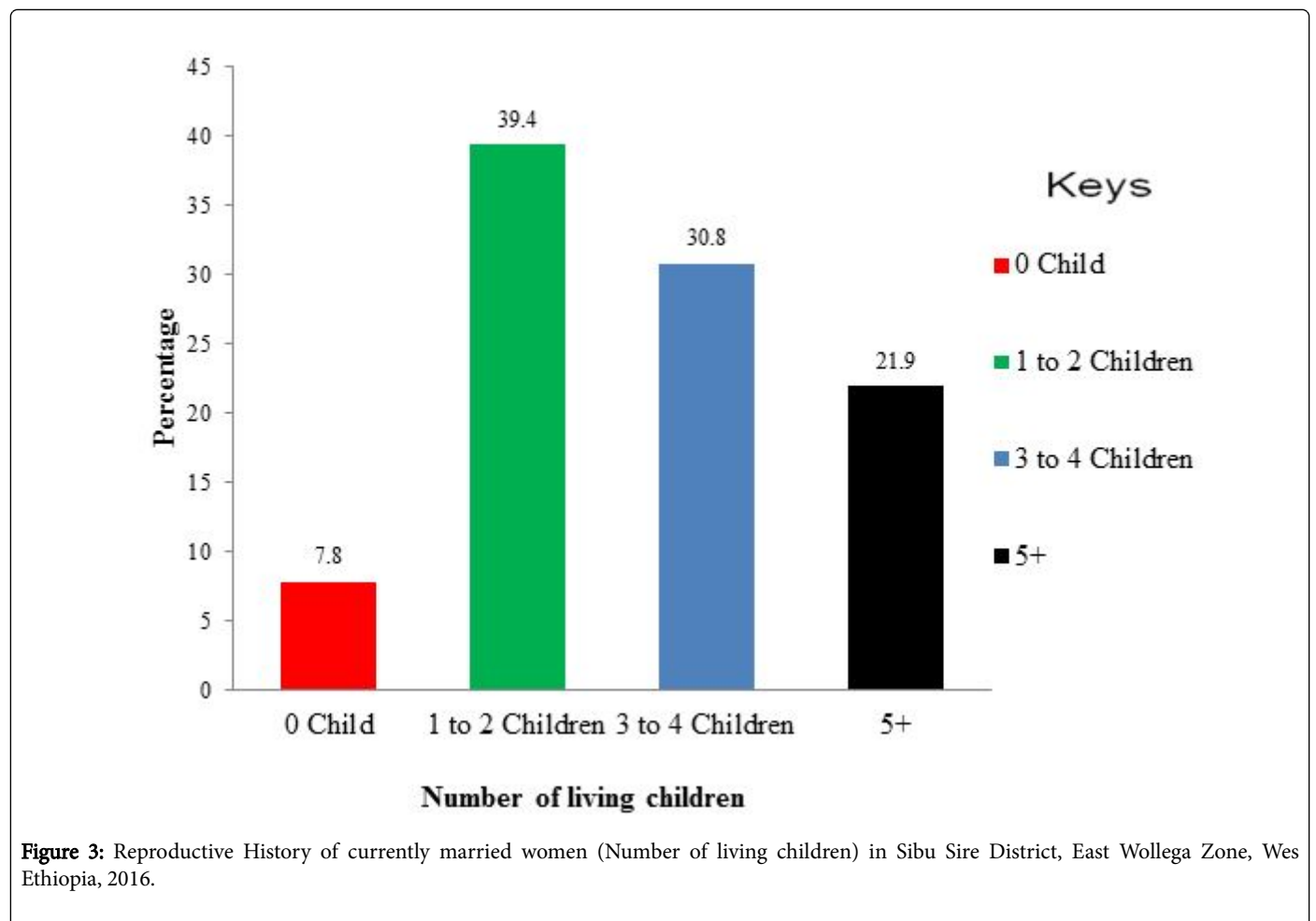
	Merchant	73 (11.9)
	Government employee	68 (11.1)
	Daily laborer	45 (7.3)
Income level of the HH (monthly) (n=616)	<400	163 (26.3)
	400-849	297 (48.4)
	> 850	156 (25.3)
Presence electronic media (Radio/TV) (n=616)	Yes	449 (73)
	No	167 (27)
Exposure to electronic (Radio/TV) media (n=616)	Yes	449 (72.9)
	No	167 (27.1)

**Table 1:** Socio-demographic and socio-economic characteristics of currently married women in Sibu Sire District, East Wollega Zone, West Ethiopia, Nov 15-25, 2016.

### Reproductive history of the study subjects

One hundred thirty (21.1%) of respondents get married before 18 years of age. Fifty-two percent of respondents had more than three

currently living children. The median age of the respondents at first marriage and first birth were 18.0 (SD ± 2.2) and 20 (SD ± 2.3) respectively (Figure 3).



**Figure 3:** Reproductive History of currently married women (Number of living children) in Sibu Sire District, East Wollega Zone, West Ethiopia, 2016.

### Knowledge of family planning

This study shows all 616 respondents heard of at least one family planning method. The highest score of knowledge assessment question is 21 and the least score is 11 for all respondents out of 21 total score using 7 main questions.

The median score of attitude questions was 15. About 48% of all respondents scored more than 15 had good knowledge of family

planning and 52% of them scored <15 had poor knowledge of family planning).

### Information about each contraceptive method of the study subjects

About 97.4% and 96.4% of the study participant's uses injectable and pill as a contraceptive option (Figure 4).

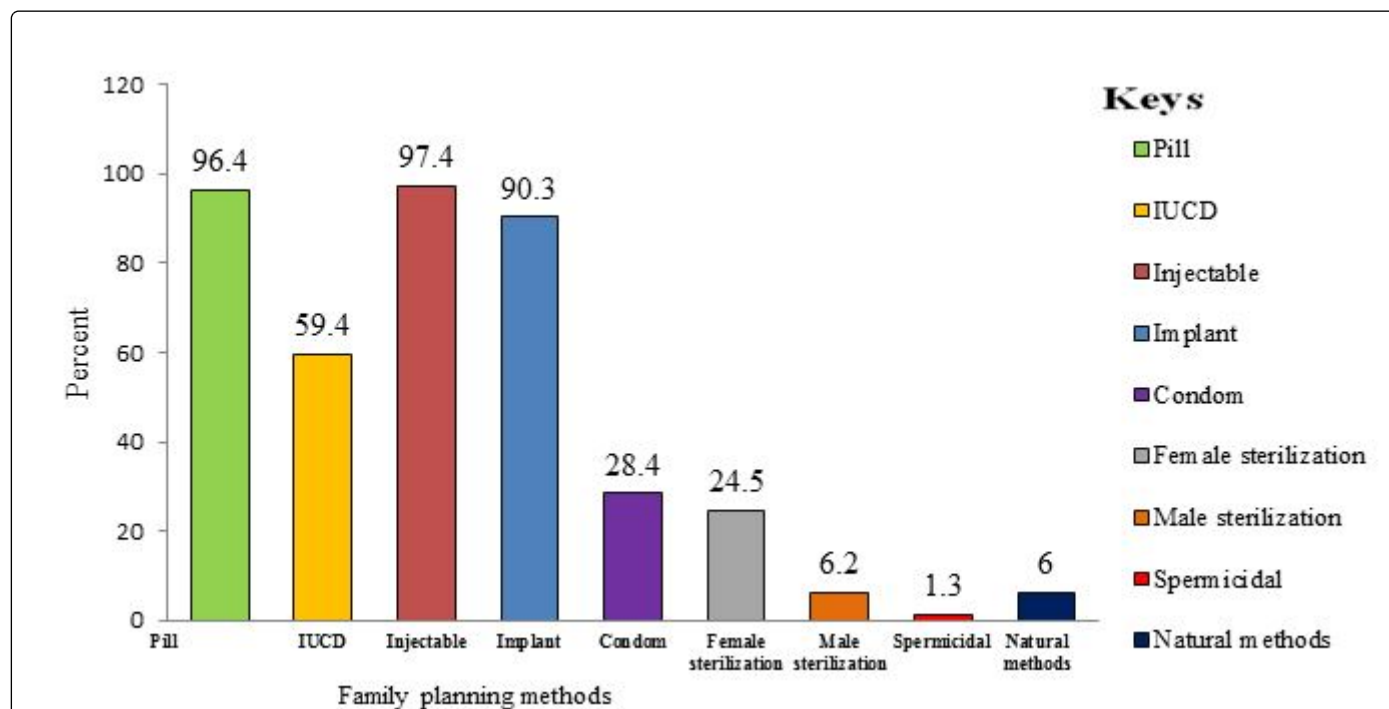


Figure 4: Awareness about each Contraception methods of currently married women in Sibu Sire District, East Wollega, West Ethiopia, November 15-25/2016.

### Discussion with partner about family planning and program related

One hundred twenty (19.5%) of 616 respondents haven't discussed with their partners about FP at all in the past 12 months before this survey was conducted. Two hundred (32.5%) of all respondents didn't visit health facility for any service before the past 12 months of this

survey and 4.4% of those visited health facility didn't discussed with health care provider about family Planning. Only 67.5% of all respondents were visited by health care provider and 35% of them discussed with them about family planning 12 months prior to this study (Table 2).

Variables		Frequency (%)
Discussed with partner about FP (n=616)	Yes	496 (80.5)
	No	120 (19.5)
Frequency of discussion with Partner about FP (n=496)	Only Once	15 (3.0)
	Discussed some time	191 (38)
	Discussed regularly	292 (59)
Visited by Health workers/health extension workers in the past 12 months (n=616)	Yes	416 (67.5)
	No	200 (32.5)
Discussed with Health /health extension workers about FP (n=416)	Yes	216 (52)

	No	200 (48)
Visited Health facility for any service within the last 12 months (n=616)	Yes	418 (67.9)
	No	198 (32.1)
Discussed with health care worker about FP (n=418)	Yes	391 (93.5)
	No	27 (6.5)

**Table 2:** Discussion with partner about FP and family planning program in Sibu Sire District, East Wollega, West Ethiopia, November 15-25/2016.

### Attitude of women towards family planning utilization

The highest score of attitude assessment question was 18 and the last score was 6 for all respondents out of 18 total score by using 6 attitude measuring questionnaire. The median score of attitudinal questions was 15. Seventy-five percent of respondents who scored more than 15 out of total 18 score had favorable attitude for family planning use and those 25% scored <15, had poor/unfavorable attitude towards family planning use.

respondents 43.3%, 15.2% and 41.5% were currently pregnant/Post-partum amenorrhea and neither Pregnant nor post-partum amenorrhea at the time of interview respectively.

Two hundred six (42%) of all currently married women do not use Family Planning due to variety of reasons. The main reasons were unmet need for family planning 20.94%, desire for child bearing 10.5%. Infecundity is the rare reason of not using any family planning method currently 14 (2.2%) (Table 3).

### Family planning utilization

About 58.4% of all currently married women were family planning users, 45.3% for spacing and 13.1% for limiting. From all non-user

Variables	Frequency (%)
Any family planning method use currently (n=616)	
Yes	360 (58.4)
No	256 (41.6)
Purpose of FP use (n=360)	
For spacing	279 (77.5)
For limiting	81 (22.5)
Currently pregnant mothers (n=256)	
Yes	111 (43.3)
No	145 (56.7)
Status of current pregnancy (n=111)	
Intended	65 (58.5)
Wanted later	36 (32)
Not wanted	8 (7.2)
Contraceptive failure	2 (2)
Status of not currently pregnant mother (n=145)	
Postpartum amenorrhea	39 (27)
Not post-partum amenorrhea or pregnant	92 (63)
In fecund	14 (10)
Status of previous pregnancy of PPA (n=39)	

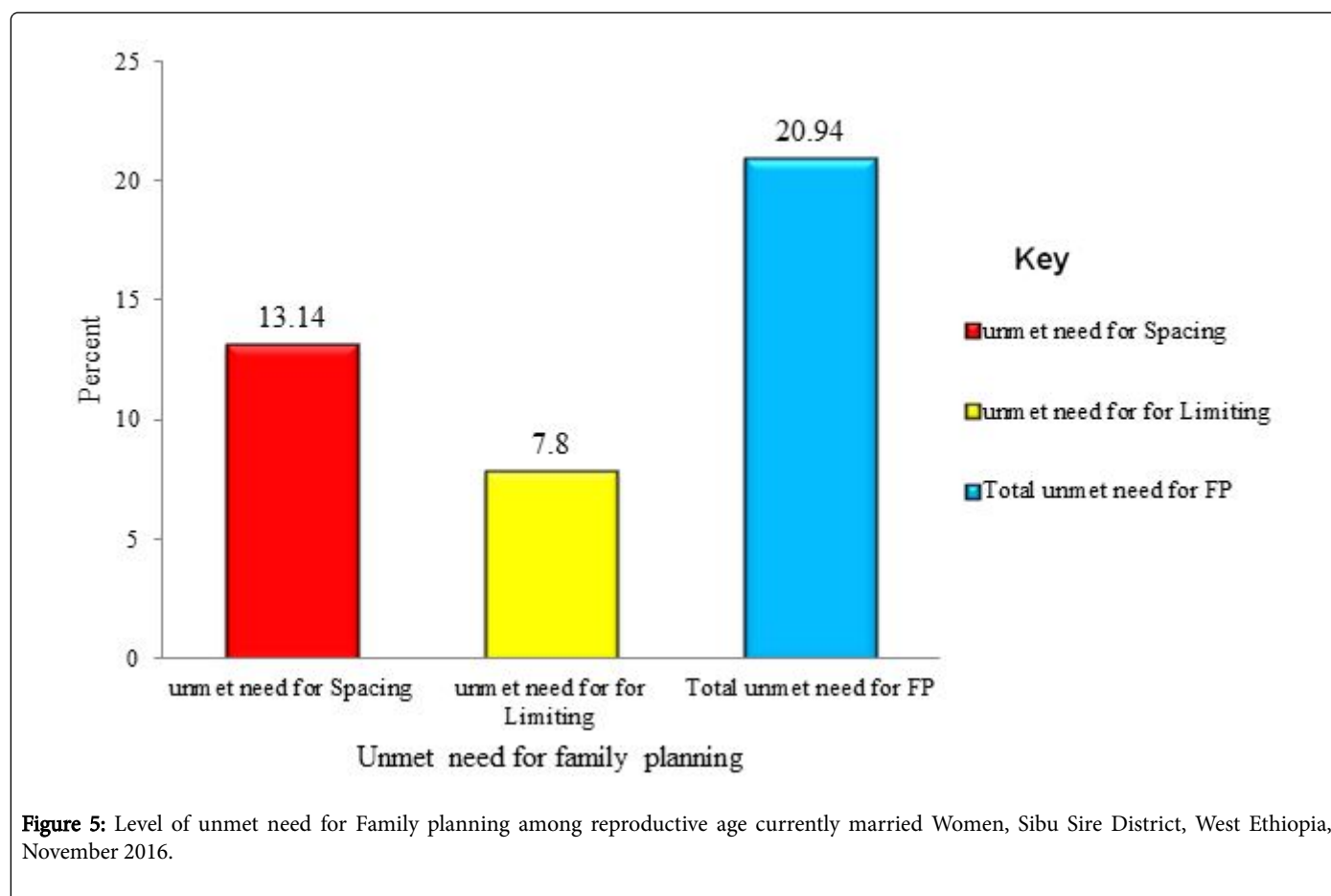


Intended	23 (59)
Wanted later	10 (26)
Not wanted	4 (10)
Contraceptive failure	2 (5)

**Table 3:** Family planning utilization among currently married women in Siburu District, East Wollega, West Ethiopia, and November 15-25/016.

### Level of unmet need for family planning

Total Unmet need of currently married in the study area was 20.94%, 81 (13.14%), 48 (7.8%) for spacing and limiting respectively (Figure 5).



**Figure 5:** Level of unmet need for Family planning among reproductive age currently married Women, Siburu District, West Ethiopia, November 2016.

### Reasons of unmet need for family planning

The main reasons of not using FP of those who had unmet needs for FP are:

- Inaccessibility of health facility-7%
- Partner disapproval-21.7%
- Religion prohibition-11.6%
- Fear of side effect-25.6%
- Health concerns-15.5%

The most listed reason is fear of contraceptive side effect (Table 4).

### Association of Independent Variables with Unmet Need for Family Planning

#### Bivariate analysis

The bivariate logistic regression analysis was carried out to identify candidate variables for logistic regression.

#### Unmet need for FP and socio-economic characteristics

Among variables of socio-economic characteristics of the respondent residence and educational status of both respondents and

their partner had association with unmet need for FP in bivariate analysis and identified as multivariate regression candidate.

### Unmet need for FP and socio-demographic factors

Here, bivariate result indicates:

Women's age at first marriage, number of living children and number of abortions were associated with Women's unmet need for FP and identified as candidate variables for further multivariate analysis.

### Unmet need and family planning program related factors

Visiting health facility for any service and being visited by health worker are identified to be candidate for multivariate logistic regression.

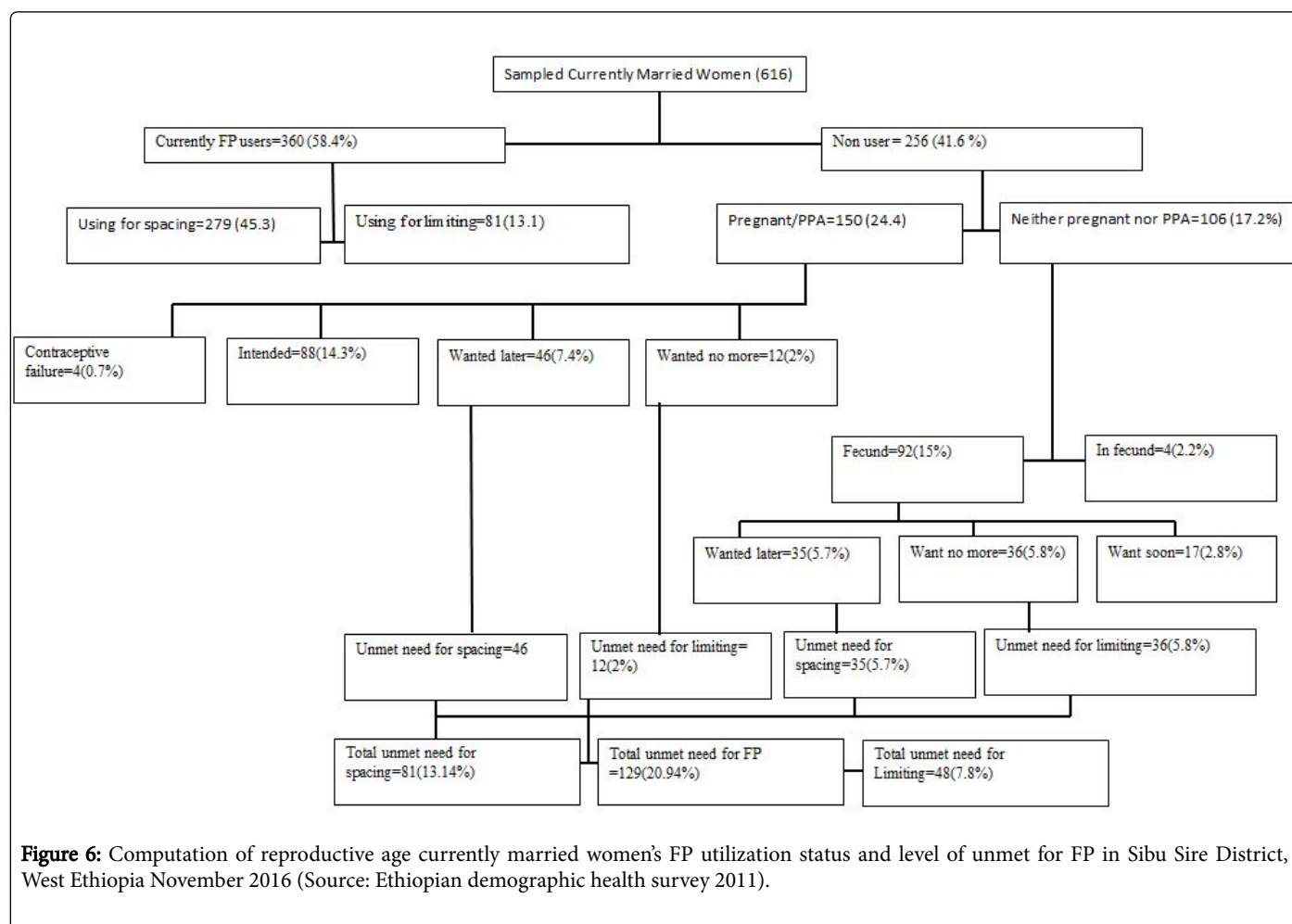
### Unmet need for FP and social (behavioral) and communicational factor

Discussion among couples about family planning, knowledge about family planning, attitude of respondents towards family planning utilization and exposure to media were variables identified as candidate for further multivariate logistic regression analysis.

### Multivariate analysis

Further, multivariate analysis was applied to identify association of the various candidate independent variables with unmet need for family planning among currently married women (Table 5).

The computation of each characteristic on met and unmet need for family planning at study area and period is illustrated in below diagram (Figure 6).



**Figure 6:** Computation of reproductive age currently married women's FP utilization status and level of unmet for FP in Sibu Sire District, West Ethiopia November 2016 (Source: Ethiopian demographic health survey 2011).

Reasons to unmet need for FP (n=129)	Frequency (%)		
	Spacing	Limiting	Total
Health Facility is far from residence (>60' on foot to FP providing HF)	5(3.87)	4(3.13)	9(7.00)
Husband/partner disapproval	20(15.5)	8(6.2)	28(21.7)
Religion prohibition	8(5.7)	7(5.4)	15(11.6)

Fear of side effect	38(29.45)	19(14.75)	57(25.6)
Health concern	10(7.75)	10(7.75)	20(15.5)

**Table 4:** Percentage distribution of currently married Women with unmet need by reasons for not using family planning method, Sibu Sire District, West Ethiopia, November 15-25/2016.

Variables	Unmet need for FP Frequency (%)				COR (95%CI)	AOR (95%CI)
	Yes		No			
Residence (n=616)						
Rural	108	-23.8	345	-76.2	2.12 (1.3, 3.5)	1.94 (0.92, 4.08)
Urban	21	-12.9	142	-87.1	1	1
Educational status of the women (n=616)						
No education	97	-39	152	-61	6.7 (4.3, 10.4)	2.6 (1.3, 5.1)*
Educated	32	-8.7	335	-91.3	1	1
Educational status of partners (n=616)						
No education	54	-34.2	104	-65.8	2.7 (1.575, 4.0)	0.72 (0.4, 1.4)
Educated	65	-16.4	383	-83.6	1	
Age at 1st marriage (n=616)						
≥ 18 Years	92	-18.9	394	-81.1	1	1
<18 Years	37	-28.5	93	-71.5	1.7 (1.1, 2.7)	1.5 (0.7, 2.9)
Number of living children (n=616)						
0	4	-8.3	44	-91.7	1	1
01-02	36	-14.8	207	-85.2	1.9 (0.7, 5.7)	2.9 (0.7, 12.8)
03-04	34	-17.9	156	-82.1	2.4 (0.8, 7.1)	4.9 (1.1, 22.4)*
5+	55	-40.7	80	-59.3	7.6 (2.6, 22.3)	5.5 (1.2, 25.1)*
Visited by HEW/HW (n=616)						
Yes	45	-10.8	371	-89.2	1	1
No	84	-42	116	-58	5.9 (3.9, 9.1)	3.7 (2.1, 7.3)*
Visit health facility (n=616)						
Yes	41	-9.8	377	-90.2	1	1
No	88	-44.4	110	-55.6	7.4 (4.8, 11.3)	3.6 (1.9, 6.8)*
Discussion with partners about FP (n=616)						
Yes	60	-12.1	436	-87.9	1	1
No	69	-57.5	51	-42.5	9.8 (6.3, 15.4)	2.9 (1.4, 5.7)*
Attitude of women towards FP use (n=616)						
Favorable attitude	34	-7.9	399	-92.1	1	1
Unfavorable attitude	95	-51.9	88	-48.1	12.7 (8.0, 19.9)	9.1 (4.9, 16.5)
Exposure to media (radio/TV) (n=616)						

Yes	39	-9.7	365	-90.3	1	1
No	90	-42.5	122	-57.5	6.9 (4.5, 10.6)	4.7 ( 2.8, 8.5)*
Knowledge status of FP of respondents (n=616)						
Poor knowledge	90	-28	232	-72	2.54 (1.7, 3.8)	1.1 (0.6, 2.0)
Good knowledge	39	-13.2	255	-86.8	1	
Number of Abortion (n=616)						
No. of abortions	116	-20	464	-80	1	1
1-2 abortions	12	-36.4	21	-63.6	2.3 (1.1, 4.8 )	1.2 (0.3, 4.5)
3-4 abortions	1	-33.3	2	-66.7	2.0 (0.2, 22.2 )	0.5 (0.04, 7.3)

**Table 5:** Multivariate analysis of candidate factors, Sibu Sire District, West Ethiopia, November 15-25/2016 [\*Shows association is statistically significant at P-value<0.05].

## Discussion

This study results shows that the level of unmet need for family planning among currently married child bearing age women in Sibu Sire District is 20.94%. This is comparable with study done in Eastern Nepal (21.7%) (14), and in Amhara region, Ethiopia (22.1%) [4]. But this is lower than the 2011 Ethiopian DHS (25.3%), study done in Northern Ethiopia [4], Enemay District (25.6%) [11], and Misha District, South Ethiopia 26.5%. These disparities might be ascribed to the increased potential health services coverage and awareness of FP.

This study result demonstrated those factors associated with unmet need for FP of child bearing age using multivariate logistic regression after controlling for possible confounders. Educational status of women, visiting health facility in the past 12 months, visited by healthcare providers at their home in the last 12 months, attitude of woman towards FP use, discussion with partners about FP issues, number of living children and exposure to Medias (radio/TV) were those variables identified to have association with unmet need for family planning in Sibu Sire District, West Ethiopia. These factors were discussed as follows:

This study shows that the possibility of having unmet need for FP of child bearing mothers decreased with educational status of the mother. Women who have no education were more than two times more likely to have unmet need for FP than educated (AOR=2.6, 95% CI: 1.3, 5.1).

Similarly, study conducted in Butajira, married women who were illiterate were 2 times more to unmet need for family planning than those attained education [12]. Likewise, 2011 Ethiopian DHS showed that Women with no education are much more likely to have an unmet need for FP than those educated [13]. Which is similar in Misha District, Southern Ethiopia, Enemay District, North Ethiopia [14] and Ethiopian DHS (2000, 2005 and 2011). This may be as a result of educated woman is more likely to know about contraceptive methods and to be more convinced in approaching service providers than women with no education. Moreover, it affects positively women's attitudes towards contraceptive use and puts them in a position to negotiate contraception adoption.

This study shows that the likelihood of having unmet need for FP of currently married women decreased with visit of healthcare providers at women's home and discussing about family planning issues. Women

who have not visited by healthcare providers were almost four times more likely to have unmet need than those who have visited (AOR=3.7, 95% CI: 2.1, 7.3) [15-18].

Qualitative study result also supports this finding. Male participants of Dicho primary health care unit says "We are far from center of kebele Health Extension worker didn't visit our females, females around the health post has opportunity to be advised and most of them are using FP, but the question I would like to ask you is: Why government construct health post and deployed health extension worker for us" (Male participant age 43 year, Dicho).

The result is consistent with earlier studies (EDHS 2011, 75% of mothers with unmet need for family planning didn't visited by any health workers [4]. The healthcare providers can help them find ways to deal with side effects or counsel to different methods which lead them to be beneficiaries of the services. Those who didn't discussed with partners about family planning issues in the past 12months prior to this study had 3 times more likely to have unmet need for family planning than who were discussed (AOR=2.9, 95% CI: (4.1, 5.7).

The result is consistent with earlier studies, study conducted in Jimma Zone, the spousal communication showed a negative association with couple's unmet need for family planning use, Similarly at Belessa District, spousal communication about family planning methods was found to be significantly affecting couples unmet need for contraception [19]. More over study conducted in south Ethiopia, participants who didn't discussed with their partner about family planning found to have unmet need of about 3 times more than their counterparts [20-22].

This is due to the fact that couples' discussion on matters concerning family planning and reproductive health provides an enabling environment for mothers to apply their fertility desires and contraceptive needs. This may show the importance of male involvement in family planning program and enhancing spousal discussion to decrease unmet need for family planning.

Women who didn't visit health facility for any service in the past 12 months has more than three times more likely to unmet need for family planning than who were visited (AOR=3.6, 95% CI: 1.9, 6.8). This is consistence with EDHS 2011, 81% of mothers with unmet need for FP didn't visited any HF in the past 12 months [3].

Key informant interview in health facility also support this idea that FP provider in chingi health center said *"Most FP users didn't come primarily to get FP service but we have using referral slip at all entry points after Engender Health gave as training on integration of Family Planning and other health services"* (female Key informant interview, FP provider, Chingi).

This study shows those mothers who were not exposed to any media were about five times more likely to have unmet need for family planning (AOR=4.7 (95%CI: 2.8, 8.5)).

Study in-depth interview result support this, one of family planning providers said *"Mass media is doing well in mobilizing community to use FP service especially long acting, I have faced those couples who consult me to use long acting family planning 'loop', by saying we have heard from "Fana" FM/radio, I think this is best strategy and should have sustainability."* (Sire health center FP provider in-depth interview participant, 28 years).

This result is consistent with study done in the SNNP, among women who had no exposure to media, 35.8% in 2000 and 38.1% in 2005 had unmet need for family planning [22]. Similarly, study done in Ethiopia (2002), Women who were exposed to media had a lower unmet need for family planning (57%) compared with women who had no media exposure (88%) [23-27].

This difference may be due to the different exposure for family planning messages through different mass media like radio and television. Those Women who had unfavorable attitude towards family planning use were nine times more likely to have unmet need than women with favorable attitude (OR=9.1, 95% CI: 4.9, 16.5).

Qualitative study result also consistent with this finding, one of female participants in Sire said *"I am not using family planning now, if you ask me why? I can't use pills because I've serious gastric disease, the injection is said to have excessive bleeding, this is the reason why I laid on God"* (29 years old Female FGD participant, Sire).

Similarly, the finding is consistent with study done in Ethiopia in 2002, women who has favorable attitude towards family planning use are less likely to have a need for family planning services than women who has unfavorable attitude towards family planning use [27].

Number of living children in this study associated factor with women's unmet need for family planning (AOR=5.5, 95% CI:1.2, 25.1), woman who had more currently living children had five times more likely to have unmet need for family planning than those who has no child. This result is consistent with survey conducted in North Shoa which indicated that couples who have more children are more likely to have unmet need than the ones who have fewer children or none at all [16]. This implies the likelihood of wanting no more children increases with the actual number of living children. Other variables such as residence of respondents, Occupation status of currently married women, Knowledge of family planning, educational status of partners, age at 1st marriage, number of abortion and number of still birth were not associated with unmet need for family planning with this study.

## Ethical Considerations

Ethical clearance was obtained from the ethical committee of Wollega University and support letter was written from public health department and all concerned governmental offices. The study participants were informed about the objective, rationale and expected

outcomes of the study using a predefined information sheet and consent was obtained from each woman participating in the study. No reimbursement was provided as direct incentive to the participants. All data collectors were females and interview was conducted in private location, each at a time to keep their privacy. Both ethics committees and advisors have approved this consent procedure.

## Limitation of the Study

As the study design was cross sectional study it might not show cause and effect relationship of dependent and independent variable. Study is restricted to currently married 15-49 years, didn't assessed all sexually active women unmet need for family planning and related factor.

## Conclusion

This study showed that the level of total unmet need for family planning among currently married child bearing aged women is high in Sibu Sire District, West Ethiopia. Factors related with this high unmet need were; educational status of women, visiting health facility in the past 12 months, visited by healthcare providers at their home in the last 12 months, attitude of woman towards family planning use, discussion with partners about family planning issues, number of living children and exposure to medias (radio/TV).

## Recommendations

- All currently married women in reproductive age should discuss openly with their partners and health care provider about family planning and other RH issues
- Health care provider in targeted health facilities should be concentrated in conducting house to house regular supportive visiting and discussion with the about FP. Also the integration of FP counseling with other health care delivery system to minimize missed opportunity should be emphasized by health care provider
- District health office and targeted health center should conduct regular supervision of family planning program especially in relation with house to house visit and family planning service integration
- Public Media should emphasis on family planning issue messages to change the attitudes of mothers to favorable for family planning use
- Researchers were recommended to conduct further study to identify the level and related factor of unmet need for family planning for all sexually active women

## Competing Interests

The authors declare that they have no competing interests.

## Authors' Contributions

The authors' responsibilities were as follows: LT participated in the design of the study, performed the data collection and the statistical analysis and served as the lead author of the manuscript. Alemayehu Getahun, Tesfaye Regassa, Zalalem Kaba Babure and Kassahun Tegegne Bidu supervised the study, ensured quality of the data; they assisted in the analysis and interpretation of the data. All authors read and approved the final manuscript.

## References

1. John W (1991) Family planning managers Handbook (1st edtn.) Wolff JC, Benzen S SL. Kumarian Prink, New York.
2. Singh S, Darroch JE, Sasford MV (2012) Adding it up: The cost and benefit of investing on family planning, maternal and newborn health.
3. Darroch JE, Sedgh G, Ball H (2011) Contraceptive technologies: Responding to women's needs.
4. Central Statistical Agency (2012) Ethiopia Demographic and Health Survey. ICF International Calverton, Ethiopia.
5. Health FDR of EM of health sector development programme IV (2014) Addis Ababa 19: 50-60.
6. Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, et al. (2010) Maternal mortality for 181 countries, 1980-2008: A systematic analysis of progress towards Millennium Development Goal 6736: 1-15.
7. UNFPA (2013) Unmet need for family planning in state of Palastine.
8. WHO (2012) Unmet need for family planning. *Int WHO J* 3: 98-100.
9. Westoff CF, International ICF (2012) Unmet need for modern contraceptive methods dhs analytical studies 28. ICF Int United States Agency Int Dev 28: 25-41.
10. Yerpude PN, Jogdand KS, Jogdand MS (2013) A study on determinants of unmet need for family planning among married women in urban slum area. *Int J Recent trends Sci Technol* 8: 122-124.
11. Dejenu G, Ayichiluhm M, Abajobir AA (2013) Prevalence and associated factors of unmet need for family planning among married women in Enemay District, Northwest Ethiopia: A comparative cross-sectional study. *Glob J Med Res Interdisciplinary* 13: 4.
12. Mekonnen W, Worku A (2011) Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia. *Reprod Heal J* 8: 1-8.
13. Tiwari S (2012) Factors influencing unmet needs for family planning among currently married women in Nepal. University of Tromso, Norway.
14. Nr K (2012) Unmet need for contraception and its associated factors among married women of reproductive age in Simichaur VDC of Gulmi District. *Heal Prospect* 11: 11-14.
15. Molla G, Experiment T (2014) Assessments of patterns and determinants of contraceptive use among females of reproductive age in Kelala Town, Northern Ethiopia. *Int J Sci Technol* 22: 1503-1510.
16. Mohammed A, Woldeyohannes D, Feleke A, Megabiaw B (2014) Determinants of modern contraceptive utilization among married women of reproductive age group in North Shoa Zone, Amhara Region, Ethiopia. *Reprod Health* 11: 1-7.
17. Mosha IH, Ruben R (2013) Communication, knowledge, social network and family planning utilization among couples in Mwanza, Tanzania. *Afr J Reprod Health* 17: 57-69.
18. Lakew Y, Reda AA, Tamene H, Benedict S, Deribe K (2013) Geographical variation and factors influencing modern contraceptive use among married women in Ethiopia: Evidence from a national population based survey. *Reprod Health* 10: 1.
19. Mihret N (2008) Determinants of unmet need for contraception among currently married couples in west Belessa woreda North Gondar of Amhara, Ethiopia. Addis Ababa.
20. Bongaarts JB (2006) The causes of unmet need for contraception and the social content of services. *Stud Fam Plann.* 26: 57-75.
21. Tilahun T, Coene G, Luchters S, Kassahun W, Leye E (2013) Family planning knowledge , attitude and practice among married couples in Jimma Zone, Ethiopia. *PLoS One* 8: 1-8.
22. Hailemariam FH, Haddis F (2011) Factors affecting unmet need for family planning in Southern Nations, nationalities and peoples region, Ethiopia. *Ethiop J Heal Sci* 21: 77-89.
23. Office DH (2014) Sibul Sire District Annual Report.
24. Chafu K, Doyore F (2014) Unmet need for family planning and associated factors among currently married women in Misha District, Southern Ethiopia: A cross-sectional study. *Women's Heal Care* 3: 4.
25. Ayele W, Tesfaye H, Gebreyes TG (2013) Trends and determinants of unmet need for family planning and programme options, Ethiopia. Calverton, Maryland, USA.
26. Tilahun T, Coene G, Temmerman M, Degomme O (2014) Spousal discordance on fertility preference and its effect on contraceptive practice among married couples in Jimma zone, Ethiopia. *Reprod Health* 11: 1-10.
27. Korra A (2002) Planning and reasons for nonuse among women with unmet need for family planning in Ethiopia. *Care Ethiopia.* Calverton, Maryland, USA.