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# Prevalence of unintended pregnancy and associated factors among married pregnant women in Ganji woreda, west Wollega Oromia region, Ethiopia

Fetene T. Teshome<sup>1</sup>, Abebe Gebremariam Hailu<sup>2</sup>, Aaderajew Nigussie Teklehaymanot<sup>2,\*</sup>

<sup>1</sup>Gimbi zon Health Office, Oromia Rigion, Ethiopia

<sup>2</sup>Department of Population and Family Health, Jimma University, Jimma, Ethiopia

## Email address:

fetene9511@yahoo.com(F. T. Teshome), abebe\_gbremariam@yahoo.com(A. G. Hailu), aderajewnu@yahoo.com(A. N. Teklehaymanot)

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**Abstract:** Background: Unintended pregnancy contributes to unacceptably high maternal mortality rates throughout the world and can have far-reaching health, social and economic consequences. In Ethiopia, around one third of all married women feel their pregnancy unintended. Objective: To identify prevalence of unintended pregnancies and associated factors among married pregnant women in Ganji woreda west Wollega zone in year 2013. Method: A community based cross-sectional study design was employed both quantitative and qualitative method. Data were entered and analyzed using SPSS software version 20. Frequencies, binary and logistic regression were used to describe and analyze study variables. Qualitative data collected by in-depth interview method. Analyzed thematically and triangulated with the quantitative findings. Result: Out of 623 subjects, 616 responded. The response rate was 98.8%. 225(36.5%) reported unintended pregnancy. Mothers whose husbands disagree to limit family size were 2.26 times more likely to experience unintended pregnancy (OR 2.26: 95% CI, 1.23-4.14). Ever physically violated mothers by their intimate partner were 1.78 times more likely to experience unintended pregnancy compared to no violate (OR 1.78: 95% CI, 1.18-2.70). Low level knowledgeable was 3.76 times more likely to experiencing unintended pregnancy than higher level knowledgeable (OR 3.76: 95% CI, 2.37-5.96). Conclusion: According to this study age of respondents, age at marriage, total birth, ideal number of children, ever-physical violence, husband's disagreement to limit family size, family planning health worker visit and knowledge level of respondents were significantly contributing to unintended pregnancy.

**Keywords:** Unintended Pregnancy, Family Planning, Knowledge and Practice

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## 1. Introduction

Every year, about 210 million women throughout the world discover that they are pregnant when they miss a menstrual period or have a positive pregnancy test. However, out of this 15% of pregnant women spontaneously miscarry or experience a stillbirth. Another 22% end their pregnancy by abortion. Thus, only about two-thirds of known pregnancies each year 133 million result in the birth of a baby (1). Yearly, more than half a million women die from pregnancy related causes. An estimated 10 million experience injuries, infections, disease or disability that can cause lifelong suffering. Most of these deaths and disabilities are avoidable (2). An estimated 74 per cent of maternal deaths could be averted if all women

had access to the interventions for preventing or treating pregnancy and birth complications, in particular emergency obstetric care (3). Unintended pregnancies (UP) are an important cause of maternal deaths. Pregnancies that occur too early, too late or too frequently can lead to illness during pregnancy and complications at the time of birth (4).

Globally, there were an estimated 287,000 maternal deaths in 2010, of this developing countries account for 99% (284,000). At the country level, 10 countries comprised 60% of the global maternal deaths, out of this Ethiopia ranked 7<sup>th</sup> by 9,000 maternal deaths in 2010. (5). The global maternal mortality ratio (MMR) in 2010 was 210 maternal deaths per 100,000 live births (5). However, Ethiopian MMR in 2012 EDHS report were 676 per 100,000 live births which was higher as compared to the global average (6).

The fifth Millennium Development Goal (MDG) aims to

improve maternal health, with a target of reducing the MMR by 75% between 1990 and 2015. Progress made so far is not sufficient to ensure the achievement of the MDG target. To achieve the target maternal health must be addressed as part of a continuum of care that connects essential maternal, newborn and child health packages (2). Despite advances in modern obstetric practice, maternal mortality remains a worldwide problem and unintended pregnancy contribute to unacceptably high maternal mortality rates throughout the world (7).

Unintended pregnancy affect both demographic trends and people's health and well-being (4). Globally, it was estimated that 80 million UP occur in 2010 out of this 75 million was in developing country (8, 9). Forty percent of all pregnancies in developing countries are unintended (4). In Sub-Saharan Africa (SSA) thirty-nine percent of pregnancies are unintended, ranging from 30% in Western Africa to 59% in Southern Africa in 2008 (10).

The consequence of unintended childbearing affects both the mother and the born child. Those results in a live birth associated with household dysfunction and exposure to psychological, physical or sexual abuse during the woman's childhood (12-14).

Women's with UP are fewer opportunities to prepare for an optimal health outcome increases the risk of adverse birth outcomes, delayed recognition of pregnancy, gestational diabetes, hypertension during pregnancy and to be hospitalized during pregnancy than women with intended pregnancies (17, 18). Mother with UP is associated with depression, anxiety and abuse (16). Also they are less likely to use any maternal and child health services, more likely to use alcohol and tobacco during pregnancy than women with intended pregnancies (12, 15).

Parents who have a birth resulting from an UP are less likely to be in a committed relationship, less likely to move into a more formal union, and more likely to have high levels of relationship conflict and unhappiness (19).

Women with an UP were significantly more likely to say they would terminate the pregnancy than women who planned to become pregnant (20). About half of unintended pregnancies in developing countries result in abortion, and unsafe abortion is a leading cause of maternal death (4). An estimated 21.6 million unsafe abortions took place worldwide in 2008, almost all 21.2 million in developing country. Complications of unsafe abortions account for 13 per cent of maternal deaths worldwide (3). In Eastern Africa nearly one in five maternal deaths can be attributed to unsafe abortion and more than 500 women die per 100,000 unsafe abortions (21).

Morbidity is a far more common consequence of unsafe abortion, manifested both in short-term and potentially long-term complications (14). The health care system also bears significant financial costs for treating complications resulting from unsafe abortions. In many African countries, a high proportion (15%–30%) of hospital gynecological admissions result from complications of unsafe induced abortion (22).

Disadvantaged women are less likely to have access to safe abortion services and to proper care to treat complications so further exacerbate maternal mortality (16). UP had been the problem of both developing and developed country. But in almost all countries, the poor and disadvantaged groups are such as young people, the uneducated, ethnic minorities and migrants disproportionately affected and higher rates of UP (16).

Use of contraception could reduce the share of maternal mortality caused by unsafe abortion by up to 15 percent (4). UP occurs even among contraceptive users mainly through incorrect or inconsistent use and contraceptive discontinuation. Also unavailability of method choice or restricted access, contraceptive failure, use a variety of contraceptive methods during their lifetime stop using an effective method and delay taking up a new one and switching methods as their circumstances change leads UP (13, 16).

Evidence suggests that even though contraceptive use is often imperfect, it can reduce unintended pregnancy and abortion. Women with unmet need for modern contraceptives account a disproportionate share 82% of UP. Sixty-six percent are among women using no method, and 16% are among those using traditional methods. The three-fourths of women who use modern contraceptive methods account for 18% of UP (23).

In Ethiopia the vast majority of UP 95% occur among the women who do not practice contraception at all and the remaining 2% are attributable to failures of traditional methods. More than seven in 10 women who want to avoid pregnancy either do not practice contraception or use a relatively ineffective traditional method. Meeting just half of this unmet need would result in 754,000 fewer UP each year, leading to 178,000 fewer unsafe abortions and 3,300 fewer maternal deaths (25).

In Ethiopia induced abortion is remains predominantly unsafe and clandestine, despite its being legal under some conditions (25). Totally the percentage of unplanned birth decreased from 35% 2005 to 29 % in 2011 (6). According to studies conducted in different parts of Ethiopia the prevalence of UP were showed 27.9% in Kersa District East Hararge in 2010, 34% in Hosanna town in 2011 and 42.4% in Damote Gale woreda respectively (27-29).

In a National reproductive health strategy of Ethiopia from 2006-2015 and in Health Sector Development Plan Four (HSDP IV) there was a goal set to reduce maternal and neonatal mortality. However, in this goal prevention of UP was not included explicitly which could potentially to substantially reduce maternal and neonatal mortality (30).

The reason for undertaking this study is, in Ethiopia one third of birth was unintended, potentially associated with high rate of maternal and infant morbidity and mortality but can also have far-reaching health, social and economic consequences (8).

Additionally prevalence and associated factors of UP were different in different time and places. Therefore this study was aimed to identify prevalence and associated

factors of UP among married pregnant women that will help health planners and health professionals in planning and provision more efficient maternal health services.

## 2. Methods and Participants

A community-based study was conducted in Oromia region West Wollega zone Ganji Woreda from January 1 to February 30 in year 2013. The District is located in the Eastern part of West Wollega zone at a distance of 67 km away from zonal capital, Gimbi town. It is bounded by Lalo Asabi Woreda in north, Homa Woreda in east, SayoNole Woreda in South and Guliso Woreda in North-West. Gimbi, the capital of the zone is situated 440 km in West of Addis Ababa main high way to Asosa (39). There is one health center and 18 health posts in Woreda. The health service coverage of the Woreda was 52 %. Family planning service coverage of the Woreda was 20% in year 2012.

A community based cross-sectional study designs both quantitative and qualitative method of data collection was employed.

Source population; The source population was consists of all pregnant women residing in households in Ganji Woreda.

Study population; All sampled married pregnant women selected from the source population.

Inclusion criteria: Married pregnant women residing in the study area for at least six month prior to conception

Exclusion criteria: women who are seriously ill at the time of data collection. women who are not hear or speak and mentally disabled was excluded.

### *Sample Size Determination and Sampling Techniques*

For quantitative study the required sample size was determined by using single population proportion formula by considering the proportion of unintended pregnancy taken from Ethiopian Demographic and Health Survey 2011 which is 29% (24). The calculated sample size was = 316. Since the source population is less than 10,000 finite population correction formulas was used. The calculated sample size was based on the assumption of simple random sampling (SRS) method. However, multi-stage sampling method were used, so as to achieve the same precision as simple random sampling the calculated sample size was multiplied by design effects of 2 and considering non response rate of 10%, the total sample size taken was:  $283 * 2 = 566$  the total sample size was  $566 + \text{non response } 10\% (57) 623 = \text{total sample size}$ . Quantitative data was collected by interviewer-administered technique, using a questionnaire adapted from relevant literatures of similar studies. It consists of basic socio demographic characteristics, information concerning reproductive history, access to health service and factors related to family planning methods question. For qualitative part, key informants of women were included from different duties. Three health professional working in maternal and child health, three health extension worker, Three community

health agents and two workers from woreda women's & child affairs office. Qualitative data was collected by in-depth interview method, using interview guideline. The data collection was carried by principal investigator. Voice recording and notes taking were used to capture the information obtained from the in-depth interview. The interview was held in quiet and comfortable place. A soon as the sessions were finalized the investigator summarize the key information obtained.

### *Data Analysis Procedures*

The collected data was edited, coded and entered to a computer and analyzed by SPSS version 20. Missing values, outliers and normality of data were checked by data exploration. Proportion and bivariate analysis were carried out. Variables that were statically significant at bivariate level  $p\text{-value} < 0.25$  confidence intervals 95% were used as candidate for multivariate analyses. Multiple logistic regressions was used to analyze study variables. Data was summarized by summary statistics and tables, figures and narratives presented the result. The captured qualitative data was transcribed word by word in to English language, organized under specific objective and summarized manually. Thematically analyzed and the result was presented in narrative way and triangulated with the quantitative findings.

### *Operational Definitions and Definition of Terms*

Unintended pregnancy: is a pregnancy, which has either unwanted or mistimed

Unwanted pregnancy: a pregnancy that has occurred to the women who were not wants to become pregnant neither at the time of conception nor in the future.

Mistimed pregnancy: a pregnancy, which has occurred without the wish of the woman at the specific time of occurrence of the pregnancy, but she has a desire to be pregnant and have a child or children sometime in the future.

Intended pregnancies: is pregnancy that occurred to women who wanted a baby at the time they became pregnant or sooner or were indifferent about conceiving

Pregnant woman: a woman who is amenorrhea for at least two months and has minor signs of pregnancy or a woman who claims that she was told to be pregnant by health worker on her visit to health institution.

Married women: In this study, women who are married in a formal civil or religious ceremony or informally women living in consensual unions currently were taken as married women and are not either divorced, widowed or separated.

Women's autonomy: in this study, variables categorized in to some autonomy and no autonomy.

Some autonomy those who have decision on health care seeking and decision to visit family or making household purchase

No autonomy was only decision to health care seeking or

visit family or major household purchase or no decision at all.

Spousal communication: this variable were measured by respondent's discussion with their husband regarding family planning matters.

Ever used of family planning: a woman who had used any of contraceptive method previously

Never contraceptive user: a woman who was not using any of the contraceptive methods any time

High Knowledge of family planning: those study participant who had answered correctly more than average of knowledge questions regarding family planning methods.

Low knowledge of family planning: those study participant who had answered average and below average of knowledge questions regarding family planning methods.

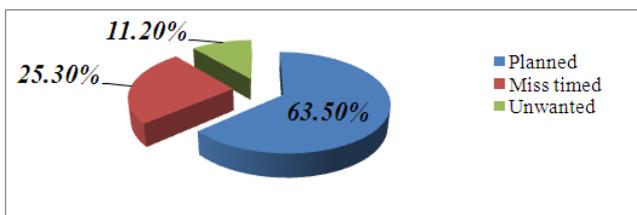
### 3. Results

#### 3.1. Distribution of Respondents by Socio-Demographic Characteristics

Out of 623 sampled women 616 were interviewed making a response rate of 98.8%. 10.9% were urban residents. 71.1% were found to be between the ages of 20 to 29. 98.7% and 86.9% were Oromo by Ethnicity and protestant in religion respectively showed in (table 1).

**Table 1.** Distribution by socio-demographic characteristics of West Wollega zone, Ganji Woreda, February 2013 (n=616)

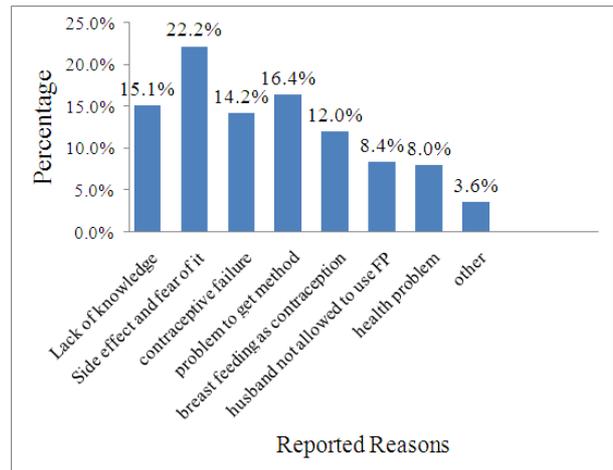
Variable	Characterized	Frequency	Percentage
Age	15-19	38	6.2
	20-24	190	30.8
	25-29	248	40.3
	30-34	81	13.1
	35-45	59	9.6
<b>Mean age 26.2 (SD ±5.14)</b>			
Religion	Protestant	535	86.9
	Moslem	46	7.5
	Orthodox	35	5.7
Women Education	Uneducated	224	36.4
	Educated	392	63.6
Husband education	Uneducated	119	19.3
	Educated	497	80.7
Occupation	Farmer	421	68.3
	Housewife	138	22.4
	Other	57	9.3
Residence	Rural	549	89.1
	Urban	67	10.9



**Figure 1.** The distribution by pregnancy intention of West Wollega zone, Ganji Woreda, in February 2013.

#### 3.1.1. Prevalence of Unintended Pregnancy

Two hundred twenty five (36.5%) of pregnancy was unintended with 95% CI: 32.7 - 40.9. 156 (25.3%) wants to have baby later while other 69(11.2%) wants no more birth showed in (Figure 1). The major reported reasons for failure to avoid unintended pregnancy were: side effects plus fear of it and problem to get method (38.6%) and lack of knowledge and contraceptive method failure shares (31.5%). The least important reason identified health concern which was 4.8 percent as presented in (Figure 2).



**Figure 2.** Reported reason for failure to prevent unintended pregnancy of West Wollega zone, Ganji Woreda, February 2013

#### 3.2. Reproductive History of Respondents

The mean age at first marriage was 18.63 (± SD 2.29) years. 31.2% were married below the ages of 18 and 68.8% were at age 18 and above shown in (table 2).

#### 3.3. Socio-Cultural Factors

One hundred three (16.7%) were not discussed about contraception with their husbands. 160 (26%) were no autonomy and 456 (74%) were some autonomy regarding to making decision for their health care, visit family and house hold purchase (table 3).

#### 3.4. Access to Health Information/Services

Three hundred seventy five (60.9%) were visited by family planning worker within the past twelve months before pregnancy while other 241 (39.1%) were not. 373 (60.6%) did not listen radio or watch television (table 4).

#### 3.5. Knowledge and Practice of Family Planning of Respondents

Five hundred twelve (83.1%) were ever used modern family planning in their lifetime while other 104(16.9%) were not. Among ever user 316(61.7%) were used Depo-Provera and 195(38.1%) were used pills and 1(0.2%) used implants at first use of family planning method indicated in (table 5).

**3.6. Identified Factors Contributing to Unintended Pregnancy among Married Pregnant Women of West Wollega Zone Ganji Woreda**

Out of independent variables age of respondents, ideal number of children, husband desire, ever physical violence, age at marriage, total number of birth, family planning worker visit and knowledge related to family planning had a significantly contributing factor to unintended pregnancy.

Women between ages 35-45 were 6.51 times more likely to experience unintended pregnancy as compared to age group between 25-29 (OR 6.51: 95% CI, 2.73-15.48).

Who disagree with their husband to limit family size were 2.24 times more likely to regard their pregnancy

unintended compared to those agree (OR 2.26: 95% CI, 1.23-4.14).

Ever physically violated by their intimate partner were 1.78 times more likely to consider their pregnancy unintended than counter parts (OR 1.78: 95% CI, 1.18-2.70).

Having  $\geq 5$  number of births were 3.03 times more likely to face unintended pregnancy compared to none births (OR 3.03: 95% CI, 1.13-8.06).

Being visited by family planning worker before pregnancy were 37% less likely to experience unintended pregnancy as compared to not visited (OR 0.63: 95% CI, 0.42 - 0.95) (table 6).

*Table 2. Reproductive history of West Wollega zone, Ganji Woreda, February 2013 (n= 616)*

Variable	Characterized	Frequency	Percentage
Age at first marriage	Below 18 year	192	31.2
	18 years & above	424	68.8
Mean age at marriage 18.63 (SD $\pm$ 2.29)			
Age at first pregnancy	15-19	298	48.4
	20-24	290	47.1
	25-29	28	4.5
Mean age at first pregnancy 19.81 (SD $\pm$ 2.54)			
Total number of pregnancy	none	142	23.1
	1-2	194	31.5
	3-4	200	32.5
	$\geq 5$	80	13.0
Mean number of total pregnancy 2.41 (SD $\pm$ 1.96)			
Number of births	none	148	24.0
	1-2	202	32.8
	3-4	189	30.7
	$\geq 5$	77	12.5
Mean number of birth 2.34 (SD $\pm$ 1.95)			
Preceding birth interval *	Less than 2 years	87	18.4
	Two to three years	247	52.1
	Three years & above	140	29.5
Previous unintended pregnancy*	Yes	81	17.1
	No	393	82.9
Ideal number of children	0-2	137	22.2
	3-4	285	46.3
	$\geq 5$	194	31.5
Mean Ideal number of children 3.89 (SD $\pm$ 1.55)			
* - 142 not pregnant previously			

**Table 3.** Socio-cultural factors West Wollega zone Ganji Woreda in February 2013 (n=616)

Variables	Characterized	Frequency	Percentage
Agreement to limit number of birth with husband	Agree	477	77.4
	Not agree	75	12.2
	Don't know	64	10.4
Discussion about family planning with husband	Discussed	513	83.3
	Not discussed	103	16.7
Women autonomy	Some autonomy	456	74.0
	No autonomy	160	26.0
Ever psychological violated	Yes	355	57.6
	No	261	42.4
Ever physically violated	Yes	314	49.0
	No	302	51.0
Ever sexually violated	Yes	221	35.9
	No	395	64.1
Ever all forms of violence	Yes	435	70.6
	No	181	29.4

**Table 4.** Distribution by access to health information or services of West Wollega Zone Ganji Woreda in February 2013 (n=616)

Variables	Characterized	Frequency	Percentage
Listen radio or TV n=616	Yes	243	39.4
	No	373	60.6
Visited by family planning worker within the past 12 months n=616	Yes	375	60.9
	No	241	39.1
Distance from family planning source n=616	< 30 minute	435	70.6
	30 -60 minute	158	25.6
	Above one hour	14	2.3
	Don't know	9	1.5

**Table 5.** Knowledge and practice of family planning of West Wollega zone Ganji Woreda in February 2013 (n=616)

Variables	Characterized	Frequency	Percentage
Knew source of family planning	Yes	602	97.7
	No	14	2.3
Knew family planning methods	Knew only one method	83	13.5
	More than one method	518	84.1
	Not knew any method	15	2.4
Knew advantages of contraceptive method	Mention no advantage	16	2.6
	Knew one advantage	415	67.4
	Knew more than one advantage	185	30.0
	Immediately after bleeding	313	50.8
During monthly cycle most likely to be pregnant	Two week after bleeding	166	26.9
	Just before bleeding	45	7.3
	During bleeding	26	4.2
Knowledge categorized	Don't know	66	10.7
	Low level knowledge	404	65.6
	Higher level knowledge	212	34.4
Practice of FP	Ever used	512	83.1
	Never used	104	16.9

**Table 6.** Multiple logistic regressions analysis for factor associated with unintended pregnancy of West Wollega zone Ganji Woreda February 2013 (n= 616)

Variable	Status of current pregnancy		COR(95%CI)	AOR (95%CI)	
	Intended	Unintended			
Age	15-19	21(55.3%)	17(44.7%)	1.39(0.70, 2.78)	0.53(0.21, 1.32)
	20-24	154(81.1%)	36(18.9%)	0.40(0.25, 0.63)	0.42(0.24, 0.73)*
	25-29	157(63.3)	91(36.7%)	1	
	30-34	39(48.1%)	42(51.9%)	1.85(1.12, 3.08)	2.21(1.13, 4.15)*
	35-45	20(33.9%)	39(66.1)	3.36(1.85, 6.11)	6.51(2.73, 15.5)*
Desired number of children	0-2	85(64.4%)	47(35.6)	1.18(0.74, 1.88)	7.03(3.37, 14.7)*
	3-4	171(60.0%)	114(40.0%)	1.42(0.96, 2.08)	5.14(2.89, 9.12)*
	5=<	132(68.0%)	62(32.0%)	1	
Husband desire	Agree	316(66.2%)	161(33.8%)	1	
	Disagree	35(46.7%)	40(53.3%)	2.24(1.37, 3.66)	2.26(1.23, 4.14)*
Ever physical violated	Don't know	40(62.5%)	24(37.5%)	1.17(0.68, 2.02)	1.06(0.52, 2.12)
	Yes	183(58.3%)	131(41.7%)	1.58(1.13, 2.20)	1.78(1.18, 2.70)*
Age at marriage	No	208(68.9%)	131(31.1%)	1	
	Below 18	81(42.2%)	111(57.8%)	3.73(2.60, 5.33)	4.60(2.88, 7.34)*
Number of birth	18 years and above	310(73.1%)	114(26.9%)	1	
	None	114(77.0%)	34(23.0%)	1	
	1-2	141(69.8%)	61(30.2%)	1.45(0.89, 2.36)	1.18(0.65, 2.217)
FP worker visited	3-4	106(56.1%)	83(43.9%)	2.62(1.62, 4.23)	2.01(1.01, 3.99)*
	=>5	30(39.0%)	47(61.0%)	5.25(2.89, 9.54)	3.03(1.13, 8.06)*
	Yes	255(68.0%)	120(32.2%)	0.61(0.43, 0.85)	0.63(0.42, 0.95)*
Knowledge related to FP	No	136(56.4%)	105(43.6%)	1	
	Low knowledge	223(55.2%)	181(44.8%)	3.09(2.10, 4.55)	3.76(2.37, 5.96)*
	High knowledge	168(79.2%)	44(20.8%)	1	

P- Value < 0.05

## 4. Discussion

Thirty-six point five percents perceive their pregnancy were unintended. It is higher in proportion to the study conducted in Kersa eastern Ethiopia in 2010 27.9 (27). This may be due to diverse tradition, cultural and religious denominations that of from this study: 85% of Kersa participants were illiterate and Muslim dominant area so every child is taken as gift of God. Being in age between 35-45 was 6.51 times more likely to become unintended pregnancy as compared to age between 25-29 (OR 6.51: 95% CI, 2.73-15.48).

This is similar with the study conducted in Bangladesh age between 35-39 (OR 2.88: 95% CI, 2.13-3.89) and 40-44 (OR 4.98: 95% CI, 3.31-7.48) (31). The possible reason may be as women age increases preference to have children decrease because women completed their fertility desire.

Mother who desire to have few children 0-2 were 7.03 times more likely to experiencing unintended pregnancy in relation to those who want >=5 children (OR 7.03: 95% CI, 3.37-14.66). It is in line with the study conducted in Nepal (OR 2.14: p-value <0.01) (35). This may be due to the

fact that as the desired number of children declines, the numbers of years during which women are potentially at risk of experiencing an unintended pregnancy increases (32). Mother who disagree with husbands to limit family size were 2.26 times more likely to declare their pregnancy unintended compared to agree (OR 2.26: 95% CI, 1.23-4.14). It is parallel to the study conducted in Hosanna Town (OR 3.24: 95% CI, 1.69-6.21) (28) and Indonesia (OR 1.2: p-value <0.006) (32). This could be due to both in Hosanna and this areas men's wants to have more births than women because of the socio-cultural context that having many children were considered as prestige in the community.

Ever physically violated women by intimate partner were more likely to experience unintended pregnancy (OR 1.78: 95% CI, 1.18-2.70). Alike to study conducted in Peru 2008 that any lifetime physical violated were higher risk of experiencing unintended pregnancy (OR 1.42 95% CI ,1.16-1.74) (37). This may be due to in both area violence against women by intimate partner were prevalent because socio-economic and cultural context. The probable reason for violated women to experience unintended pregnancy was due to less negotiates to use contraceptive

or effective contraceptive method. The finding is also supported by in-depth interviewees report.

One of key informant of in-depth interview said that *“many women didn't want to have many children because they face many problems during pregnancy, delivery and child care ... but their husband's did not think about this he want to have many birth, prevent them not to take contraceptive and some women began to use contraceptive secretly due to this conflicts arise between them and their husbands intimidate them by saying that I will marry other women unless you gave birth”*.

Who married before age 18 were 4.6 times more likely to experience unintended pregnancy compared to who married at age 18 and above (OR 4.60: 95% CI, 2.88-7.34). It is similar with the study conducted in Iran in 2010 the rate of unintended pregnancy significantly increase in age group less than 18 as compared to between 19-24 years (38).

This could be due to the fact that women who married in early age would bear children early and the reproductive life time that she had many children increased. The possible reason may be those who married in early age would less likely to attend and complete formal education which may lead to lower level of knowledge about family planning and reproductive health system contribute to higher rate of unintended pregnancy.

Having  $\geq 5$  number of births were 3.03 times more likely to face unintended pregnancy compared to none births (OR 3.03: 95% CI, 1.13-8.06). The finding is comparable with the study conducted in Indonesia (OR 1.59: P-Value  $< 0.05$ ) and Kersa (OR 5.18: 95% CI, 3.30-8.12) (27, 32). This may be because of women who have attained their desired number of children will regard any additional child as unintended.

Mother visited by family planning worker before pregnancy were 37% less likely to experience unintended pregnancy as compared to not visited (OR 0.63: 95% CI, 0.42-0.95). It is in line with the study conducted in Damote Gale (OR 0.30: p-value  $< 0.001$ ) (29). This is because in both place the health policies were the same that encourage outreach community service. The possible reason may be family planning outreach workers provide information and service and mobilize the community on family planning matter.

Who had low knowledge on family planning were 3.76 times more likely to experience unintended pregnancy in contrast to high knowledge (OR 3.76: 95% CI, 2.37-5.96). This may be because of women who had low knowledge were less likely to know the available option, more likely to complain with minor side effects and less likely to use method correctly. The finding is supported by qualitative study:

One of key informants of in-depth interview said that *“women took Depo-Provera for many consecutive times and stop taking it by thinking that they will not get pregnant because of they took Depo-Provera for many consecutive time but they became pregnant”*.

*Also the other in-depth interviewees said that “women complain, using Depo-Provera will leads to high menstrual bleeding and pills will be deposited in the body and leads serious disease like cancer”*.

## 5. Conclusion

From a total of 623 sample 616 responded making a response rate of 98.8%. More than one third of married pregnant women experienced to unintended pregnancy. Within the currently growing awareness, accessibility of service and ever practice of modern contraceptive the prevalence was high. From this we claim awareness and accessibility of contraceptive does not prevent unintended pregnancy rather counseling on each method and breaking misconception about contraception in the community is necessary.

The social-cultural and economic positions of women in society as well as by her husband influence were contributed to unintended pregnancy. The more children a woman already had, the more likely she was to report that her last pregnancy was unintended. Above one tenth of women who disagree with their husbands to limit births were experienced higher rate of unintended pregnancy. More than a third of mothers not visited by family planning worker were faced a higher rate of unintended pregnancy. Women who desire less number

(0-2) of children were experienced higher rate of unintended pregnancy. About two third of the study participant had low-level knowledge of modern family planning method and experienced high rate of unintended pregnancy.

## Recommendation

Based on the findings of this study, the following recommendations were forwarded

### *Policy and Program Level*

- Federal MOH should plan on the prevention of unintended pregnancy, which was missed from a national reproductive health strategy, and HSDP planned to decrease maternal and child death.

- The woreda health office should work with community elder, Idirs, other influential persons and woreda women's & child affairs office to decrease the rumors and misconceptions related to family planning

### *Health Worker*

- Health extension worker should improve the door to door visit of the community

- Health worker should provide information and counseling about each contraceptive methods in order to make informed choice and correct method use and strengthening family planning methods users

### **NGO and Other Stakeholders**

- Woreda women affair & child office and administration should work on women empowerment which increases women negotiation to use family planning and reducing violence made against married women by general community orientation and informal (peer) education.

### **Researcher**

- Large scale study on determinants of unintended pregnancy by considering service provider and health service manager view should be conducted.

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