



Research Paper

## Utilization of Family Planning Services by Rural Women in Chirre Woreda of Sidama Region, Ethiopia

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### ABSTRACT

The rapid population growth has become one of the major challenges facing the society today. Unbalanced population growth has created additional burden and brought about heavy pressure upon socioeconomic development. However, there has been no comprehensive study carried out in the study area to empirically assess the level of utilization of family planning services by rural women and factors that affect utilization of family planning services. The objective of this study was to assess the utilization of family planning service by rural women of reproductive age group in Chirre Woreda, Sidama Region of Ethiopia. The data were collected from 204 respondent women selected using systematic random sampling method. The data were analyzed using frequency distribution, cross-tabulation and chi-square test, and logistic regression methods. The result indicated that 97.5% of the respondent women in the area have heard of contraceptive methods. However, the level of current utilization of family planning methods was low (27.5%) and the majority (72.5%) of the respondents was not using family planning methods. Among the current users, injectable and pills were the most commonly used methods by 86.3% and 81.9% of the respondents, respectively. The result of logistic regression model showed that educational status of women and husbands, fear of contraceptive side effects, total number of living children, and economic status of women were significant factors determining the utilization of family planning methods.

**Key Terms:** Family planning, Logit, Contraceptive method

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### I. INTRODUCTION

Sub-Saharan Africa has the highest average fertility rate in the world. In 2009 the average number of births per woman was 5.1 more than twice as many as in South Asia (2.8) or Latin America and the Caribbean (2.2) (World Bank, 2009). The average contraceptive prevalence (22 percent) is less than half that of South Asia (53 percent) and less than a third that of East Asia (77 percent) (Ibid). As a result of these patterns, the region is growing at a faster rate (2.3 percent) than other regions of the developing world, including both Asia and Latin America (1.1 percent each) (UN DESA 2008).

Ethiopian Demographic and Health Survey (EDHS) of 2005 revealed that, knowledge of contraception has remained consistently high in Ethiopia over the past five years with 88% of currently married women having heard of at least one method of contraception. However, actual contraceptive practice among women of reproductive age group remained very low. This high knowledge with low utilization rate is mainly because of different barriers to decision on use of contraceptives (CSA and Macro, 2006).

In the past 40 years, family planning programmes have played a major part in raising the prevalence of contraceptive practice from less than 10% to 60% and reducing fertility in developing countries from six to about three births per woman. However, in half of the 75 larger low-income and lower-middle income countries (mainly in Africa), contraceptive practice remains low and fertility, population growth, and unmet need for family planning are high. Contraceptive use is seen as pivotal to protecting women's health and rights, impacting up on fertility and population growth, and promoting economic development particularly in much of sub-Saharan Africa. Globally, contraceptives help prevent an estimated 2.7 million infant deaths and the loss of 60 million years of healthy life (Darroch et al. 2009 cited in, Tsedey 2011). Family planning is a key to slowing unsustainable population growth and the resulting negative impacts on the economy,

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environment, and national and regional development efforts. There is a growing call for population policy to shift away from a narrow concern with improving family planning services to also consider the wider social and societal influences regarding the determinants and consequences of women's position in society (Casterline and Sinding, 2000).

Ethiopia has also experienced a fairly slow decline in fertility over the past decade. The reported total fertility rate (TFR) was 6.4 children per woman in 1990 and by the year 2000, it had decreased to 5.9 children per woman (CSA and ORC Macro, 2001). Although the contraceptive prevalence rate among women of reproductive age (15-49 years) has doubled during the last ten years, it still remains very low. This may indicate the existence of some barriers that prohibit couples from using family planning even if they desire to limit or delay births. Historically Ethiopia also had a very low level of contraceptive use. One of the national population policy objectives was to achieve a total fertility rate (TFR) of four children per woman in 2015 by expanding access to family planning program such that contraceptive use would reach 44% (NPP, 1993).

The Ethiopian Population Policy, which was adopted in 1993, has the objective of reducing total fertility rate as well as raising the contraceptive prevalence rate to a national coverage rate of 44% by the year 2015 (MOH,1996). In Ethiopia contraceptive use in women is 14.7% and above 34% of women want to use contraceptive but have no means to do so (EDHS, 2005). There have been efforts to promote family planning service to increase contraceptive prevalence rate. The SNNPR of Ethiopia is characterized by high population growth rate (2.9%), high level of TFR of 5.6 children per women of reproductive age, low level of current contraceptive use (11.9%), and infant mortality of 85/1000 live birth. The same trend of high population growth rate of 2.9%, high level of fertility rate and low level of contraceptive use are reported in Sidama Region where this study were conducted (DOFED, 2011).

Family planning services (dissemination of information and provision of modern contraceptives) are recent introduction and therefore new to the majority of the population in the developing countries. As a result, their adoption is greatly challenged by social, economic, cultural, religious, psychological and physical barriers (Bandarage, 1997). Therefore, objective of this study was to assess the level of utilization of family planning services by rural women and identify factors that determine the use of family planning services so as to avail the information that would assist the concerned authorities to promote family planning services at a wider scale.

## **II. RESEARCH METHODOLOGY**

### **2.1. Description of the Study Area**

Chirre *Woreda* is found in Sidama Region, Ethiopia. It is one of the 19 *Woredas* in the Sidama Region. The *woreda* is divided in to 17 *kebeles*, 16 of which are rural 1 is urban. The capital of the *Woreda* is Chirre town located at about 202 km south of Hawassa.

Chirre *Woreda* covers the area of 39,300 hectare with total population of 120,449 out of which 60,535 were males and the rest 59,914 were females according to 2007 housing and population census. The projected population for 2011 was 131,235 according to Sidama Region finance and economic development department. Out of these, 128,667 (98%) live in rural areas and only 2568 (2%) live in urban *kebele*. The majority of residents belong to Sidama ethnic group with small proportion of other ethnic groups (DOFED, 2011).

The *Woreda* has 3 functional public health centers and the other 2 health centers are under construction which will give service currently. There are also 12 functional health posts and 4 Private clinics.

The climatic condition of the *Woreda* is similar to most of southern parts of the country. The main (summer) rainfall comes between June-September and the spring rainfall which is very important for agricultural activities in the *Woreda* comes between March to May. Rainfall ranges between 800mm to1500mm per annum with maximum annual temperature also ranges between 15° C - 25° C.

Agro-ecology of the *Woreda* is favorable for diverse of the agricultural production activities. The *Woreda* is one of the regularly cultivated areas in Sidama Region. Coffee, inset, and cereal crops such as, maize, barley, and other root crops are grown in the *Woreda*. Chirre *Woreda* is well known for its specialization in high quality organic coffee production.

### **2.2. Data Sources**

This study was conducted in Chirre *Woreda* by taking 3 sample *kebeles* namely Echama, Chirre-kumburta and Lollawa and the required data were collected from both primary and secondary sources. The primary data were collected from selected sample women of the selected rural *kebeles*. The secondary data were gathered from different published and unpublished sources and relevant offices.

### **2.3. Sampling Design**

#### **2.3.1. Sample size determination**

According to CSA and Macro (2006), in Ethiopia current use of contraception by married woman was 15% (contraceptive prevalence rate, p=0.15). Based on this information, the sample size of this study was

determined by assuming that, 15% of the women in the target population currently use contraception methods. Thus, the following formula (Cochran, 1977) was used in the determination of sample size.

$$n = \frac{Z^2 p(1 - p)}{e^2}$$

Where; p = proportion of the utilization of family planning service (FPS) is 15%.

Z = 95% confidence level corresponds to the value 1.96

E = proportion of sampling error tolerated at 0.05 (to increase the accuracy).

Accordingly, the sample size (N) of the study is calculated as follows,

$$n = \frac{(1.96)^2 0.15 (1 - 0.15)}{(0.05)^2} = 196$$

Considering 5 % non-response rate, the sample size was as follows:

$$n = 196 + 10 = 204$$

Therefore, a total of 204 women were included in the study.

### 2.3.2. Sampling techniques

First, all 16 rural *kebeles* were stratified based on the agro-ecology of the *Woreda*. Chirre *Woreda* has two types of agro-ecology *Dega* and *Woina-Dega*. Out of 16 rural *kebeles*, six *kebeles* are *Dega* and the other ten *kebeles* are *Woina-Dega*. Following this, one *kebele* out of six and two *kebeles* out of the ten, totally, three *kebeles* were randomly selected.

The 204 sample household women were proportionately distributed to three sample *kebeles* using probability proportional to size (PPS) sampling technique. Household women in each *kebele* were selected through systematic sampling technique. The lists of households in each *kebeles* were obtained from *Woreda* health office. Finally, an eligible respondent in each household was identified and interviewed. When more than one woman was eligible with 15-49 in a household, only one woman was selected by using a lottery method. Where there were no an eligible woman, the next interval was considered and in case the next household women were included in the study. The population proportions of the *kebeles* were calculated based on the 2007 national population census.

Further, in order to generate extensive information, and adequately support the quantitative data collected from women at household level and hence increase the reliability and generalizability of the findings of the study, focus group discussion (FGD) was made at *kebele* level with selected women and key informant interviews (KII) were conducted with key informants from selected institutions such as *Woreda* maternal and child health officers and health posts.

### 2.4. Data collection Methods

In order to produce a complete set of data for analysis and meet the stated objectives, different data collection instruments were used including questionnaire for women of reproductive age of three *kebeles* and interview schedules for different KII. Prior to data collection (field work), the questionnaire was pre-tested on small sample subjects from all categories of respondents.

This was done primarily to check whether the respondents can understand each question properly and estimate the time required to fill out. Up on receiving feedback, some amendments were made prior to ultimate duplication.

In three *kebeles*, after training, six data enumerators (one male and one female data collector in each *kebele*) were selected and recruited. Equal chance for both male and female enumerators were given because of females are more close to interview women respondents and this helped to overcome the socio-cultural factors that could be a barrier to make a free discussion on issues related to reproductive health matters. During the field work, all the necessary efforts were made to maintain data quality through intensive field supervision.

### 2.5. Data processing and analysis

After the completion of field work, the quantitative data were coded, entered into computer and verified. Data analysis was done for utilization of family planning services by those women who are in rural areas of the *Woreda* and in reproductive age group. Frequencies and percentage of different variables were computed for description as appropriate and cross-tabulation with chi-square test was analyzed to the relationship between independent variables and family planning utilization. Logistic regression binary logit model was used for identification of determinants. This was done to see effects of different characteristics of women with contraceptive use. The qualitative data were also summarized and presented to supplement the result of the quantitative analysis.

**2.6. Specification of empirical model**

The logistic regression technique is used when the dependent variable is dichotomous (binary) in which case the event either “occurs” or “does not occur”. In this study, the dependent variable is family planning utilization among women of reproductive age group. Women are either contraceptive users or non-users. For more than one independent variable, that is for K independent variables (X1,X2, ... .. Xk), the binary logit model can be written as:

$$Z(x) = \{Exp (B0 + \Sigma Bi * xi)\} / \{1 + Exp (B0 + \Sigma Bi * x1)\} \dots \dots \dots (1)$$

Derivation of the logit model can be performed as follows:

$$\text{Let } p = \frac{\exp(z)}{\{1+\exp(z)\}} \dots \dots \dots (2)$$

$$1 - p = \frac{1}{\{1 + \exp(z)\}} \dots \dots \dots (3)$$

$$\frac{p}{1 - p} = \exp(z) = \text{odds} \dots \dots \dots (4)$$

Taking the natural logarithm of the above would result:

$$\frac{p}{1-p} = e^{B_0 X_0} * e^{B_1 X_1} * e^{B_2 X_2} * \dots \dots \dots e^{B_n X_n} \dots \dots \dots (5)$$

$$\ln \left[ \frac{pi}{1-pi} \right] = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 \dots \dots B_n X_n \dots \dots \dots (6)$$

Where p = chance of being user of contraceptive methods

1-p = chance of being non-user

ln [pi/(1 - pi)] = is the probability or risk of the event occurring which is the odds of women non-utilization of contraception.

Xi = X1, X2, X3 ... .. Xn : are the independent variables used in the model.

Bi = B1, B2, B3 ... .. Bn: are the regression coefficients indicating the magnitude of change (increased or decreased risk) in the independent variable.

The odds ratio Z<sup>i</sup> is the factor by which the odds change when i<sup>th</sup> independent variable increases by one unit. If coefficient is positive, this factor will be greater than one, which means that the odds are increased (increased risk of women non-users of family planning). If coefficient is negative, the factor will be less than one, which means that, the odds are decreased (decreased risk of outcome), when B is zero, the factor equals one which levels the odds unchanged.

**III. RESULTS AND DISCUSSION**

**3.1. Practice of family planning method by respondents**

The distribution of respondents by practice of family planning method is presented in Table 1. Accordingly, the respondents were asked ever use of family planning method. Most of the respondents (59.8%) ever used contraceptive methods and similarly, nearly half of the respondents were not ever used any family planning methods.

Only 27.5 of the respondents were using family planning methods at the time of the survey and the majorities (72.5%) were non-users. Among the list of family planning methods, injectable was the most frequently used (53.6%) followed by pills (41.1%) and Norplant (5.4%). This shows that, in the study area, majority of respondents were non-users of any family planning methods and there were low method mix and opportunity for contraception because of only three methods of contraception, such as injectable, pill and implant were familiar during data collection in the study area.

As far as purpose and availability of currently used family planning methods were concerned, all of the respondents (98.2%) reported spacing as main purpose for current utilization of contraception. Concerning availability of family planning methods, majority of respondents (62.5%) said not easily available and (37.5%) of respondents said easily available. This shows that, the availability of family planning methods were not easy for majority of women’s who were currently using contraceptives.

**Table 1: Percentage distribution of respondents by reported practice of FP method**

Practice of family planning method	Frequency	Percentage
Ever use of family planning method		
Yes	122	59.8
No	82	40.2
Current use of modern family planning method		
Yes	56	27.5
No	148	72.5
Which method are you using currently		
Pill	23	41.1
Implant / Norplant	3	5.4
Inject able	30	53.6

Purpose for using currently		
Spacing	55	98.2
Limiting	1	1.8
Availability of family planning method		
Easily available	21	37.5
Not easily available	35	62.5

Source: Own field survey.

### 3.2. Relationship between demographic variables and family planning methods utilization

The following selected demographic variables were included in this section. Age, total number of living children, total number of died children, number of children desired and marital status. The relationship between demographic variables and family planning use is presented in the table eight. As it can be seen from this table, current family planning method utilization was highest (59.5%) among women of age group 25 - 34, (27%) among age group 15 - 24 and the lowest (10.4%) among age group 35 and above. From this, one can clearly understand that, family planning method utilization prevalence was highest at the middle age group 25 - 34 which indicates in need of family planning method utilization for the purpose of birth spacing. This is similar with result revealed under table 2 which is the attitude of respondents on purpose of using contraception for birth spacing constitutes (98.2%). Low current contraceptive utilization rate among women of reproductive age group 35 and above indicate that, there might be low pregnancy risk among this group. Therefore there was no significant association between age of the respondent women and current contraceptive use.

As far as the relationship between family planning method use and number of living children were concerned, table 8 shows that the highest (49.4%) of utilization rate were among women who have 4 – 6 living children, followed by (16.9%), (10.4%), and (8.3%) of utilization rate among women who have 1 - 3, 7 – 10 and nothing total living children respectively. This shows that, women who have large number of children were most contraceptive users. This might be because of on the ground that, women who have less than four children and greater than four children, starts thinking about spacing and limiting their birth respectively. On the other hand, those women who have greater than seven children were less contraceptive users. This might be because of these women think there may be low pregnancy risk because of high probability of increasing their age. In general, despite the low family planning method utilization by few (only 10.4%) older age women of 35 and above there were consistence between family planning utilization and number of total living children at ( $p < 0.005$ ).

The relationship between total number of children died and family planning utilization were also seen in the table eight. As seen from this cross tabulation, women who have no history of children died, were more (30%) method use than those women who have history of one or more children were died (14.7%). From this one can understand that in the study area a women have history of one or more children died were less utilizes of family planning method nearly by half than those women who have no history of child died. This result also shows that, there was a significant association between method use and number of children died.

Concerning the relationship between total number of desired children and family planning method use, all (100%) of respondent women who desired 1 – 3 children were utilized any of contraceptive method during this survey followed by,(35.5%) and (17.7%) of women who desired 4 – 6 and more than seven children respectively. This result also shows that, the decision of women to use contraceptive increased with the decrease of desired number of children. Therefore, no significant association between number of desired children and contraceptive use as chi-square test shows.

The relationship between marital status of respondent women and family planning utilization is also analyzed in the table 2. Accordingly, most 54 (28.7%) of married women were utilized family planning method during this survey followed by, 1(25%) and 1(8.3%) of separated and widowed women respectively. This result also illustrates that, married women are more prone to contraceptive than their counter parts. Here is also consistence between marital status of women and contraceptive use.

**Table 2:** Relationship between demographic variables and family planning utilization.

Selected demographic variables	Are you currently using of family planning method?			P- value
	Yes = 56	No = 148	Total	
Age				0.058
15 – 24	27	73	100	
25 – 35	59.5	40.5	100	
35 and above	10.4	89.6	100	
Number of total living children				0.031
Child less	8.3	91.7	100	



1 – 3	16.9	83.1	100	
4 – 6	49.4	50.6	100	
7 – 10	10.4	89.6	100	
Number of died children				0.042
No child died	30	70	100	
One and above children died	14.7	85.3	100	
Total number of children desired				0.405
1 – 3	100	0	100	
4 – 6	35.5	64.5	100	
7 and above	17.7	82.3	100	
Marital status of respondents				0.306
Married	28.7	71.3	100	
Widowed	8.3	91.7	100	
Separated	25	75	100	

Source: own field survey

### 3.3. Relationship between socio-economic variables and family planning methods utilization

Education of respondents, education of husband, occupation and economic status of women were selected socio-economic variables. Table 3 shows that family planning was lowest (10.7%) for those respondents who cannot read and write, (57.1%) for those women who attained grade 1 – 4, (60.7%) for those who attained grade (5 – 8), family planning method utilization increased (75%) with educational level of respondents 9 – 10, (100%) for those women who attained grade 11 and above. This result shows that family planning method utilization increase with increase in educational level of respondents and there is association between education and contraceptive use at ( $p < 0.001$ ).

This result is also in line with different studies, According to, Omwago and Khasakhala, 2006; education is one of the variables with the most pervasive impacts on fertility preference and behavior of couples. Educated couples are more likely to know about contraceptive methods and to be more confident in approaching service providers than women with no education. Similarly, the Ethiopian 2005 DHS showed that, the contraceptive prevalence rate increases with educational attainment, that means it increases from 10% among women with no education to 53% among those with secondary and higher education. The same study revealed that women with no education are twice more likely to have unmet need for contraception than women with secondary and higher level of education (CSA and ORC Macro, 2006). As a result, literacy or educational level has strong relationship with family planning utilization.

Regarding the relationship between education of husband and family planning utilization of women, table 3 shows a relationship between variables at ( $P < 0.005$ ). Women whose husbands cannot read and write were utilized only (10.5%) of family planning method. Followed by utilization of, (35%), (56.1%), (80%), (66.7%) and (100%) of family planning method by 1 – 4, 5 – 8, 9 – 12, diploma and degree educational level of husband respectively. From this result one can clearly understand that, like the educational level of respondent women, the educational level of husbands determine utilization of family planning method by respondent women. Therefore, the utilization of contraceptive by women increases with increase of husbands' educational status.

Concerning the relationship between occupation of the respondents and family planning utilization, only (22.8%) of housewife women were utilized family planning methods during data collection. However, (66.7%) of trader women and all (100%) of farmer women were utilized the method. This result clearly shows that, women who engaged in farming and trading utilized family planning method three times more likely than those women who engaged in housewife. This may be due to the fact that they are assumed to be more educated, more exposed to the outside world and have knowledge of modern contraceptive methods. Therefore, the occupation of women and family planning utilization are associated.

The relationship between economic status of the women and method utilization were also shown in the table 3. As can be seen from this table, very poor and poor women utilized nothing and (4.8%) of contraceptives respectively. On the other hand, women who had medium and rich economic status utilized nearly (26%) and (63.6%) of family planning methods respectively. From this association one can understand that, women who have better economic status are more prone toward contraceptive utilization. Hence, family planning utilization has relationship with respondents' economic status at ( $p < 0.005$ ).

**Table 3:** The relation between selected socio-economic variables and contraceptive use

Socio-economic factors	Are you currently using family planning method?			P. value
	Yes = 56	No = 148	Total	
<b>Education of respondent</b>				
				0.000
Cannot read and write	10.7	89.3	100	
1 – 4	57.1	42.9	100	
5 – 8	60.7	39.3	100	
9 – 10	75	25	100	
11 – 12	100	0	100	
12 and above	100	0	100	
<b>Education of husband</b>				
				0.002
Cannot read and write	10.5	89.5	100	
1 – 4	35	65	100	
5 – 8	56	54	100	
9 – 12	80	20	100	
College diploma	66.7	33.3	100	
Degree	100	0	100	
<b>Occupation</b>				
				0.043
House wife	22.8	77.2	100	
Small trader	66.7	33.3	100	
Farmer	100	0	100	
<b>Economic status of respondents</b>				
				0.008
very poor	0	100	100	
Poor	4.8	95.2	100	
Medium	25.6	74.4	100	
Rich	63.6	36.4	100	

Source: own field survey

### 3.4. Results of Logistic Regression Model

The binary logistic regression result indicated that five out of eleven variables included in the model were found to significant at influencing the utilization of contraceptive methods by the rural women in the study area (Table 4). These include number of living children, educational status of women, educational status of husband, economic status of women and fear of contraceptive side effects.

The result of analysis in Table 4 shows that the total number of living children became a significant predictor of contraceptive use ( $p < 0.05$ ). It was found that, keeping all other variables constant, as the number of living children increases by one unit, the odds of the women to use contraceptive increases by a factor of 0.829. In other ways, this means that as number of living child increases by one unit, the probability that a woman uses contraceptive also increases by 0.829.

Other studies are also in line with this result. The total number of children and family planning service utilization are strongly related. If women have more children who are living with them, the possibility of using family planning methods for limiting is expected to be high, and if the number of children desired by women is perceived to be ‘not enough’, they may use family planning methods for spacing purpose. A study in Pakistan also showed that the odds of using a family planning method increased with parity (Pasha, et al., 2001 cited in Gizaw and Reggasa, 2011). Another study conducted using the national survey data of Turkey (Ozlem, 2006 cited in Gizaw and Reggasa, 2011) indicated that the number of living children seems to be negatively associated with contraceptive method. In general, this result clearly indicates that, number of living children in the household determines contraceptive use by women.

The economic status of women also became a significant predictor ( $p < 0.05$ ) of contraceptive use. This variable has four categories, of which the last category (rich women) was selected as a reference category for analysis. It is found that, very poor women are less likely to use contraceptive than reference category (rich women). In other words, it could be noted that the ratio of odds for being contraceptive user for a woman who is very poor is 0.563 times less likely than economically rich women. Similarly, in the second category, it is found that, poor women are 0.568 times less likely to use contraceptive method than reference category. Moreover, third categories of women who fall under medium economic status are 0.812 less likely to use contraceptive than reference category. In other words the likelihood of contraceptive use among those women who had medium economic status is found to be lower if compared with reference category. From this result one can clearly understand that, all categories were statistically significant at ( $p < 0.05$ ). In general this shows that, a woman who has better economic position, are more likely to utilize contraceptive method than their counter parts.

This result is also in line with other studies, such as Hogan et al. (1999) who showed that economic status and women's paid employment were associated with contraceptive use, with the latter significantly increasing the likelihood of contraceptive use. Heeks (2008) cited in Tsesey (2011) found that the relationship between education and women's contraceptive use was mediated through household wealth.

Education is also found to be a significant determinant of contraceptive use ( $p < 0.001$ ). It was found that as the educational status of women changes by one grade, the odds of the women to fall into non-use of contraceptive user group decreases by a factor of 0.279. In other words, the likelihood of contraceptive use among those women who are able to read and write is found to be greater as compared to those who were not able to read and write. Therefore, this study confirms that, women's education plays a great role on the utilization of family planning method.

The result is consistent with the finding of Tsesey (2011) and Babalola (2009) who explained the positive impact of education on contraceptive use. Thus, women with high levels of education are likely to delay conception while getting their education. Once women obtain their education and enter into the labor market, those with high levels of education demand less children than women with low levels of education because of the higher cost of foregone income that rearing children entails.

The coefficient for husbands' educational status was different from zero at 5% level of significance. It means that keeping all other variables constant, as the educational status of husbands increases by one grade, the odds of the women to fall into non-contraceptive user group decreases by a factor of 0.846. In other words, it is noted that the ratio of odds for a woman who has non-educated husband to fall into non-user group is 0.846. This result indicates that in the study area the women with educated husbands were more familiar with contraceptive use than their counterparts which could be because education enabled men to better gain the knowledge of contraceptive methods. This is also in line with other study conducted in Sudan indicated that more years of education enabled men to have better knowledge of reproductive health behaviors in which case men would be liberal to introduce couple's discussion to use family planning. They would also consider managing family size as something that has to be decided by couples (Ali, 2006 cited in Tsesey, 2011).

The other important determinant of contraceptive use by rural women in Chirre Woreda was fear of contraceptive side effects women. Women who believed utilization of family planning method has adverse side effects and leads to health problems were 0.299 times less likely to use contraceptive than women who had not been influenced by the fear contraceptive side effects. In other words, it could be noted that the ratio of odds for women who believe contraceptive side effects being non-contraceptive user is 0.299 times higher than that of women who did not believe in contraceptive side effect.

**Table 4.** Logistic regression result for family planning utilization in Chirre Woreda

Variables	B	SE	Sig	Exp (B)
Age	-0.098	0.065	0.129	0.906
Age at first marriage	0.133	0.094	0.159	1.142
Number of living children	-0.187*	0.078	0.040	0.829
Marital status of respondents				
Married	-0.152	1.491	0.681	0.859
Widowed	0.423	1.897	0.823	1.527
Separated (RC)				
Educational status of respondents	-1.275***	0.310	0.000	0.279
Educational status of husband	-0.168**	0.074	0.024	0.846
House wife	-0.576	0.392	0.742	0.562
Small trader	-0.490	0.406	0.228	0.613
Farmer (RC)				
Economic status				
Very poor	-1.903**	1.127	0.028	0.563
Poor	-0.574	0.261	0.037	0.568
Medium	-1.148	0.624	0.044	0.812
Rich (RC)				
Fear of side effects	-1.206**	0.342	0.002	0.299
Service providers approach	-0.008	0.981	0.304	0.365
Sex of service providers	0.206	0.326	0.528	1.228
Constant	3.257	4.069	0.689	25.962

\*\*significant at  $p < 0.05$

\*\*\*significant at  $p < 0.01$

RC = reference category

SE = standard error

B = regression coefficient

Source: Model output



#### **IV. CONCLUSION**

Chirre Woreda is one of the densely populated areas in the Sidama Region of Ethiopia. Total projected population of the Woreda was 131, 233 for the year 2011. Three public health centers and twelve health posts were functional which give family planning service for rural women in the Woreda.

It was found out that in rural area of the Chirre Woreda, about 97% of women have awareness of and the opportunity to hear about at least one method of contraception. However, the level of current utilization of family planning methods was low and the majority of the respondents were not using family planning methods due to a number of reasons. There were also significant numbers of women who have no access to information on any contraceptive method. The majority of women have had knowledge of injectable followed by that of pills.

The total number of living children and family planning service utilization were found to be strongly related. If women have more children who are living with them, the possibility of using family planning methods for limiting number of children is expected to be high. This possibly seems that women were aware of the consequences of having many children both on economy of the family and health of the mother.

Women, who had better economic position, were more likely to utilize contraceptive methods than their counter parts. It was found that, very poor women were less likely to use contraceptive methods than rich women.

Women's education played a great role on the utilization of family planning method. Similarly, educational status of husband was the one of the important factors that positively influenced women's contraceptive use. From the finding it could be concluded that in the study area, women with educated husbands were more familiar with contraceptive use than their counter parts who have uneducated husbands.

Fear of contraceptive side effects by rural women was another important determinant of contraceptive use in Chirre Woreda. It was revealed that women who believed that the utilization of family planning method has different side effects and leads to health problems were less likely to use contraceptive method than women who had no fear of contraceptive side effects.

#### **V. RECOMMENDATIONS**

Based on the findings of the study, the following recommendations are forwarded.

1. From this study it was found out that better educational status of families could increase women's knowledge of contraceptives as well as actual practice of using contraceptives and the desire for limited family size. Thus, efforts should be made to improve women's educational status through improving their access to education, particularly in areas where early marriage is still common. Government authorities as well as other voluntary organizations should play great role to increase the access to formal and informal education for rural women and their husbands.

2. The study showed that fear of contraceptive side effects was one of the determinants of contraceptive use of rural women. Therefore, Government and Non-governmental organizations should focus on increasing awareness level and changing attitude of rural women through strengthening training, follow up and positive client approach. In this case health extension workers can help clients to feel positive about the method they selected and deal with any negative attitudes of spouses or other relatives. Open discussion about negative rumors can also help clients distinguish fact from fiction. A well designed follow up system for contacting clients will also benefit the individual client.

3. It was observed that economically poor women were less contraceptive users. Therefore, the Government should expand different rural women development packages to bring women economically more beneficiary and independent. This in turn will create opportunities for women to know different contraceptive methods and decision to use.

4. In order to achieve direct contribution of family planning on development policies, the strategies of development should be re-oriented to encourage adoption of family planning service through empowerment of women. By doing so it could support the ongoing effort of country socio-economic development and check rapid population growth.

5. In this study it is also recommended that the study area needs further research that includes men and sexually active unmarried women who were excluded in this study to give comprehensive recommendations.

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