Original article

Utilization and determinants of modern family planning among women of reproductive age group in Ethiopia: results from Integrated Family Health Program.

Bekele Belayihun [1], Girma Kassie[1], Mengistu Asnake[1], Habtamu Zerihun[1], Ismael Ali[2]

Abstract

Background: Family planning improves community health and wellbeing by helping women to space and/or limit the number of children they want until they are physically and financially prepared.

Objective: The aim of this study was to assess utilization and determinants of modern family planning among women of reproductive age in Ethiopia.

Methods: A cross-sectional household survey was conducted in four major regions of Ethiopia (Tigray, Amhara, Oromia and Southern Nations, Nationalities and Peoples (SNNP)) from April 28 to May 30, 2013. 2,404 women of reproductive age were interviewed Samples were selected using a two-stage stratified sampling process. Descriptive and logistic regression methods of analysis were used to analyze utilization of modern family planning and the factors associated with it.

Result: The mean age of respondents' was 28.6 years (S.D=8.67). The most commonly used methods of family planning are injectable. Multivariable analysis showed that discussion with partner/husband about family planning practice in the last 6 months (AOR=6.1, 95%CI=4.73-7.81) and respondents knew health extension workers providing family planning services (AOR=1.57, 95% CI=1.23-2.01) were significantly associated with the use of modern family planning methods.

Conclusion: Results of this study revealed that the number of respondents who have discussed with husband/partner about family planning and respondents who knew the family planning service providers were high utilizers of modern family planning methods. Our findings also indicated that current use of modern family planning increases with women's education, and creating a conductive environment for women's education is critical. Additional efforts are required to promote modern family planning utilization, partner participation, and couple counselling for join to decision making to improve modern family planning use. [*Ethiop. J. Health Dev.* 2016; 30(1):4-10]

Key words: Family planning, Modern methods, Utilization, Reproductive age, Partner discussion

Introduction

The rapid population increase in developing countries has become a major concern requiring immediate attention. Family planning improves community health by helping both men and women to have children when they are physically, emotionally and financially prepared and able to take responsibility to bring up a child.

In developing countries, millions of women in the reproductive age group who don't use contraceptives prefer to postpone or limit giving births. This demonstrates a mismatch between contraceptive behaviour and fertility preferences indicating women's inability to take the necessary decisions to prevent and avoid unwanted pregnancy (1). On the other hand, uptake of modern family planning services has been slowly increasing in sub-Saharan Africa (SSA) including Ethiopia. The low uptake can result in a high incidence of unintended pregnancies, rapid population growth, unsafe abortions, and maternal deaths (2-3). Globally, 13% of maternal deaths occur due to unsafe abortion (4).

Ethiopia is making a noteworthy improvement in modern family planning use, but still availability and accessibility of family planning services vary between urban and rural areas (5). One of the targets of the Ministry of Health of Ethiopia with respect to improving maternal and child health is to increase the contraceptive prevalence rate (CPR) from 42% to 55% by 2020 (6). Any modern family planning method prevalence among all women increased by an impressive 49.2% in the last three years, from 18.7 percent in 2011 to 27.9 percent in 2014 (5, 7). Much of this increase is attributable to the sharp increase in the use of injectable. According to the 2014 mini demographic health survey report, use of modern family planning method varies notably by region, ranging from 57% in Addis Ababa to 1% in the Somali region (28.6% Tigray, 44.9% Amhara, 42.8% Oromia and 38.6% SNNP) (5). This suggests that, in Ethiopia the current use of modern family planning methods utilization still remains low. It is, therefore, important to better understand the factors that affect modern family planning method use in all reproductive age group women in Ethiopia.

Several studies have been conducted on determinants of family planning use in developing countries. In some cases, strong associations have been established between family planning use and some socio-demographic, cultural and economic characteristics of women (8-10).

Partner/husband discussion about family planning methods is a major factor influencing family planning use. Findings from other studies revealed that most

[1] Pathfinder International, P.O. Box 12655, Addis Ababa, Ethiopia
[2]John Snow. Inc., P.O. Box 1392 code 1110, Addis Ababa, Ethiopia

women who have discussed with their partner/husband actually used some methods compared to those who did not (11, 12).

Integrated Family Health Program (IFHP) is a project funded by USAID and implemented by Pathfinder International and John Snow Inc. since July 2008. The project focuses on providing integrated family planning, maternal, newborn, and child health services as well as improving the quality of reproductive health services specifically family planning in public sector facilities in four major target intervention regions (Tigray, Amhara, Oromoia and SNNP) of the country. The program supports and strengthens the primary health care services through health extension workers (HEWs) at community level and facility services at the health centre level. It operates in 300 woredas of Tigray, Amhara, Oromia, SNNP regions and to a lesser extent in Beneshangul Gumz and Somalia regions involving around 1,378 health centres and 6,378 health posts.

IFHP provides different types of technical and logistics support at all levels of the public health system. The technical support includes training for service providers, including HEWs on different family planning methods, post training follow-up and mentorship visits by IFHP staff in collaboration with public sector staff at different levels. The logistics support includes provision of post training long acting family planning methods (LAFP) (Implants and intrauterine contraceptive device (IUCD), supplies and consumables for each facility involved in the training to initiate the service immediately and filling gaps when the need arises. Additionally, IFHP supports demand generation activities through availing mobile audiovisual van vehicles and distributing different information, education and communication, behavioural change communication (IEC/BCC) materials. These tailored materials are provided to households, and adolescent and youth at service delivery points and during community level demand generation activities. From 2008 to 2012, IFHP provided long acting family planning (LAFP) methods training, including implants and IUCD for 9,175 service providers, including HEWs, conducted 2,234 mobile van sessions, distributed 2.9 million IEC/BCC materials and made 10,190 follow-up visits to health centres and health posts. These are some of the efforts IFHP is doing to improve the family planning service in the country. The aim of this study was to assess utilization and determinants of modern family planning among women of reproductive age in project-supported areas in Ethiopia.

Methods

Study design: The study was a cross-sectional household survey among women aged 15-49 years from the major target intervention regions of Ethiopia (Tigray, Amhara, Oromia and SNNP).

Sampling: The sample was selected using a two-stage stratified sampling process. A sampling frame was constructed by listing kebeles (primary sampling unit) and their population size. The population size is projected from the 2007 population and housing census (13). In the first stage, 30 kebeles (Stratas) were selected from IFHP areas in each region proportional to their population size (PPS). In the second stage, desired sample of women 15–49 years was obtained by the 'random walk' method, with eligible women interviewed in every fifth household (14). Women eligible for interview were identified through a brief listing of women in the household prior to interview. If a household did not have an eligible woman, this was recorded on the household listing sheet and the interviewers moved to the 5th next household. Interviewers were instructed to continue to approach households and identify eligible women for an interview until the desired sample of women 15-49 was reached (14).

Data collection: The data were collected in the period April 28 to May 30, 2013 using standard survey questionnaire which was customized from EDHS questionnaire (7). To ensure that the questionnaire was clear and could be understood by both enumerators and the respondents, it was pretested in the respective local languages (Oromifa, Amharic and Tigregna), and appropriate revision and adjustment was done. A 5 day training was provided to data collectors and supervisors, which was managed by the principal investigator. The training focused on the quality of field operation and research ethics (how to fill the questionnaire, mock interviews and other practical exercises).The questionnaire was administered by forty (40) trained data collectors and four supervisors who were fluent in the assigned region local language and experienced in family planning service provision (10 data collectors with one supervisor for each region). Responses were collected through face to face interviews conducted by the trained data collectors. The supervisors were assigned to supervise data collection process and perform quality checks.

***Operational definition*:** Family planning methods are grouped into two broad categories, namely, modern methods and traditional methods. Modern family planning methods include pills, condoms, lactation amenorrhea method (LAM), diaphragms, standard day method, injectable, implants, IUCD and sterilization. Traditional methods consist of periodic abstinence, withdrawal, and calendar or rhythm method and other traditional methods.

Data Analysis: The investigators assessed the quality, accuracy and completeness of the administered data using range plausibility and cross-validation check to confirm that all are logical. Collected data were entered into Microsoft Access 2010 for ascertaining the accuracy and consistency of the data. After completing data entry, the data were transferred in to SPSS version 20 for coding, checking, cleaning and analyzing. Descriptive statistics was used to summarize the data and the results were presented using frequency tables and percentages. Upon completion of bivariate analysis, we select variables for multivariable analysis. Variables with bivariate test have a p-value<0.25 is candidates for multivariable analysis (15). The degree

of association between dependent and independent variables was measured using adjusted odds ratio with 95% confidence interval at significant level of ≤ 0.05.

Ethical considerations: Ethical approval for all aspects of the survey was obtained from each regional health bureau (RHB) ethical review committee where data collection took place. A brief overview of the study objectives was read aloud in the local language to potential participants prior to requesting their voluntary consent to participate. Informed, oral consent was obtained from respondents before starting the interviews.

Results

In this study, a total of 2,404 women of reproductive age group were enrolled from the four major IFHP intervention regions. Seventy two percent of the participants were married. Their mean age was 28.6 years (S.D=8.67). The result shows substantial variations by background characteristics in the current use of modern family planning methods among all reproductive age group women. Current use of modern family planning method is lower among women age 35 and above than younger women. Modern family planning use is highest among eligible women age less than 25 (32.6 percent). The pattern of the relationship between modern family planning use and number of live births is a decreasing trend. Modern family planning use is highest among women with 1-2 live births and lowest in women with five or more live births. Current use of modern family planning method increases with women's education[5]. Twenty seven percent of women with no education report current use of any modern family planning method, compared with 32% of women with more than grade six educational levels. Although regions and place of residence are expected to have relation to the outcome variables of modern family planning utilization, the situation in this study showed that modern family planning utilization varies by regions, ranging from 29.4 percent in SNNPR to 24.4 precent in the Oromia region but not significant variations between regions (x^2=3.878, p=0.275), and also majority of respondents (90%) live in rural areas. Therefore, this variable was excluded from further analysis (Table1).

Table 1: **Current utilization of modern family planning method by background characteristics of all reproductive age group women, IFHP area, Ethiopia, 2013**

Characteristics	Use of modern family planning		X^2 - P-Value
	Yes (%)	No (%)	
Regions			
Tigray	175(27.6%)	458(72.4%)	3.878
Amhara	162(26.8%)	442(73.2)	P= 0.275
Oromia	143(24.4%)	443(75.6%)	N=2404
SNNPRS	171(29.4%)	410(70.6%)	
Residency			
Urban	76 (31.4)	166 (68.6)	2.55, P=0.26
Rural	575 (26.6)	1587 (73.4)	*N=2404*
Educational level			
Not attend a formal school	334(26.8)	910 (73.2)	5.78
Grade (1-3)	68(27.8)	177 (72.2)	P=0.122
Grad (4-6)	101(31.3)	222(68.7)	
Grade 7+	146(32.1)	309 (67.9)	
Missing (137=5.7%)			*N=2267*
Age			
<25	258(32.6)	534(67.4)	17.12
25-29	143(26)	407(74)	P=0.001
30-34	81(23.7)	261(76.3)	
>35+	149(24)	471 (76)	
Missing (100=4.2%)			*N=2304*
The mean age of respondent	28.6		S.D=8.67
Marital status			
Currently Married	607(35.1)	1120(64.9)	223.5
Widowed/ Divorced/ separated	38(19.1)	161(80.9)	P=0.000
Never married			
Missing = 3	6 (1.3)	469(98.7)	*N=2401*
Number of live births			
1	101 (35.2)	186 (64.8)	
2	106 (42.1)	146 (57.9)	13.9
3	88 (38.3)	142 (61.7)	P=0. 008
4	82(29.4)	197(70.6)	
5+	203(31.4)	44(68.6)	N=1695
Not in union = 697 & Missing = 12			
Heard of any message about FP in the last 6 months			
Yes	388(29)	951(71)	4.65
No	235(24.9)	709(75.1)	P=0. 031
Not sure=121			*N=2283*
Knew HEW providing FP service			
Yes	287(28)	738(72)	7.66
No	364(26.4)	1015(73.6)	P=0. 001
			N=2404
Knew VCHW providing FP information			
Yes	37 (25.2)	110 (74.8)	2.89
No	614 (27.2)	1643 (72.8)	P=0.000
			N=2404

Significant association (p≤0.25). SNNPR=South Nation, Nationality & Peoples Region

The family planning prevalence rate is 27.9 percent of all eligible women and 36.1 percent for married women. The majority of women use modern family planning methods than traditional method. Table 2 shows that 27.7 percent of all eligible women and 35.9 percent of currently married women are using a modern family planning method compared with 0.2 percent using traditional method. The most commonly used modern methods are injectable in which 20.5% of reproductive age group women and 26.5% of currently married women were used. Furthermore, five percent of currently married women use implant and 3% use contraceptive pill. Levels of use of male condoms and female sterilization were very low (Table2).

The major reasons of women for not using family planning methods were; not having sex (18.2%) and want another child (11.2%) (Table3).

Table 2: **Percent distribution of all women and currently married women aged 15-49 by current use of family planning methods, IFHP area, Ethiopia, May 2013**

Method	Any eligible women		Currently married women	
	No	%	No	%
Injectable	493	20.5	458	26.5
Implant (single rod)	97	4.0	92	5.3
Pills	46	1.9	45	2.6
IUCD	4	0.2	4	0.2
Female Sterilization	9	0.4	6	0.3
Male Condom	2	0.1	2	0.1
Standard Days Method (SDM)	10	0.4	10	0.6
LAM	5	0.2	5	0.3
Rhythm Method	4	0.2	4	0.2

Table 3: **Distribution of reason for non-use of family planning use of study population, IFHP area, Ethiopia, May 2013**

Reason	No	%
Not having sex	437	18.2
Want another child	270	11.2
Breastfeeding	144	6.0
Side effects/health concerns	109	4.5
Up to god/fatalistic	107	4.5
Infrequent sex	49	2.0
Knows no method	45	1.9
Religious prohibition	39	1.6
Others	205	8.5

Significant at α value of *=0.05 and 0.01, CI=Confidence Interval, FP=family planning

From the multivariable analysis, only five of the most contributing factors remained to be significantly and independently associated with modern family planning utilization at 5% level of significance. Accordingly, a partner who discussed in the last six months about family planning is six times more likely to use modern family planning (AOR=6.1 and 95% CI=4.73-7.81) compared with respondents who did not discuss with partner. Respondents knew health extension workers providing family planning services (AOR=1.57, 95% CI=1.23-2.01) were significantly associated with the use of modern family planning methods (Table 4).

Table 4: **Determinants of modern family planning utilization among women of reproductive age in IFHP area, Ethiopia, May 2013**

Characteristics	Modern family planning utilization	
	COR (95% CI)	AOR (95% CI)
Age		
<25	1	1
25 – 29	1.95 (1.5-2.5)	0.93 (0.6-1.5)
30 – 34	1.74 (1.3-2.3)	0.93 (0.6-1.4)
35+	1.43 (1.12-1.8)	1.07 (0.8-1.5)
Marital status		
Never married	1	1
Widowed/ Divorced/ Separated	0.05 (0.02-0.13)	1.4 (**4.6-4.10**)
Currently Married	2.3 (1.59-3.31)	3.3 (**1.2-8.9**)
Education Level		
Not attend a formal school	1	1
Grade (1-3)	1.05 (0.8-1.4)	1.3 (0.9-1.9)
Grade (4-6)	1.24 (0.95-1.6)	2.1 (**1.5-3.1**)
Grade 7+	1.29 (1.02-1.6)	2.6 (**1.8-3.7**)
Number of live births		
1 – 2	1	1
3 - 4	1.4 (1.1-1.7)	1.1 (0.7-1.7)
5+	1.09 (0.9-1.41)	1.0 (0.9-1.4)
Knw HEW providing FP service		
No	1	1
Yes	2.83 (2.35-3.4)	1.57 **(1.23-2.01)**
Knew VCHW providing FP information		
No	1	1
Yes	1.9 (1.44-2.75)	1.6 (**1.05-2.45**)
Hard of any message about FP in the last 6 months		
No	1	1
Yes	2.09 (1.7-2.55)	1.2 (0.9-1.6)
Discussed the practice of FP with partners in the last 6 months		
No	1	1
Yes	6.5 (5.2-8.1)	6.1 **(4.73-7.81)**

Discussion

This study revealed that 27.7% of women of reproductive age group were currently used modern family planning method. Family planning utilization in the current study which is higher than the 18.7% reported among 2011 Ethiopian demographic health survey (7) but similar with 2014 Ethiopian mini demographic health survey result (27.9%) (5) The most commonly used method among all eligible women were injectable (20.5%) and 26.5% among currently married women. This corresponds with other studies done in Ethiopia and Kenya (5, 7, 16, 17). However, this finding is different from a study done in Uganda (18, 19) where by condoms were used as the main method of contraception.

The current study identified different reasons for family planning methods not being used by women. The majority of women mentioned more than one reason for not practicing modern family planning. The most common reason mentioned was not having sex (18.2%) and the second frequently mentioned reason was desire to have more additional children (11.2%). This was followed by fear of side effects (4.5%) and breast feeding (6%) as reasons for not using modern family planning methods. Other similar studies also indicated that the main reasons for non-use of modern family planning were being single (not having sex), fear of side effects and a desire for more additional children (20).

Educational level of women also had a statistically significant influence on the odds of the respondents using modern methods of family planning. Compared with those with no schooling; those with education were more likely to report utilization of modern family planning methods. Women who had grade 7 and above were 2.6 times more likely to use modern family planning methods as compared to those who had no schooling (AOR=2.6 at 95% CI=1.8-3.7). This result is in line with studies from Ethiopia and Uganda that showed modern family planning use were higher among educated women than women with no education (5, 7, 10, 11, 21). Hence, the findings of this study underscore the importance of educating women to improve their income, increase their knowledge and practice about modern family planning methods and to improve utilization.

The study also found that discussion with husband/partner about current use of modern family planning methods was very crucial to the success of family planning utilization. The results showed that women who discussed family planning methods with their partner/husband were 6.1 times more likely to use modern family planning methods. This finding is consistent with empirical findings from other studies (11, 22, 23). Our findings were also substantiated by another study from Ethiopia, which showed that the likelihood of modern family planning use was higher among women who discussed with partner/husband about family planning practice (24). Moreover, evidence from Ethiopia revealed that husband

opposition was the major reason for non-use of family planning (12).

Our survey finding indicated that 38.3% of modern family planning method users knew their family planning service providers, the HEWs, which is statistically significant. Results from multivariable analysis showed that women who knew HEW providing family planning services were 1.6 times more likely to use modern family planning method (AOR=1.57 at 95% CI =1.23-2.01) (25). In the same fashion, women who knew VCHWs providing family planning information were more likely to utilize the modern family planning method (AOR=1.6 at 95% CI = 1.05-2.45) (26). This may be explained by the fact that HEWs and VCHWs are accessible to the various communities in the district as they provide door-to door health education and services. The most notable limitation of this study was that data about men on family planning was collected from their wives and not directly from them. This could introduce biased response, which should be remedied by conducting another study involving husbands/partners.

Conclusion:

In conclusion, the findings of this study indicated that modern family planning utilization has shown a notable improvement in Ethiopia. The study showed that the most preferred method of contraceptives was injectable. The major factors associated with the use of modern family planning include discussion with partner/husband about family planning, women's educational level, knowledge of women about their health service providers and married women as better utilizers of family planning methods.

Recommendations

Based on the results of this study, health workers should continue to promote husband/partner discussion and male engagement in family planning to increase family planning uptake. We also recommend further research on male partner views and opinions about family planning, explore their role in supporting the family planning utilization and their participation on the use of male family planning methods. In addition, our survey showed that the most preferable method of family planning is injectable, and there is a need for future research why women prefer injectable to other methods of family planning.

Acknowledgment

The Integrated Family Health Program (IFHP) is a USAID-funded health program implemented by Pathfinder International and John Snow, Inc. (JSI) in partnership with the health sector at various levels (FMOH, RHBs of Amhara, Oromia, SNNP and Tigray, Woreda Health Offices, Health Centers, Health Posts, and Kebeles) and due acknowledgement is forwarded to the above institutions. Our deep gratitude also goes to our study participants who volunteered and took their time to give us all the relevant information for the study and all data collectors who showed their commitment to collect data during the survey. We would like to express special heartfelt thanks to USAID for funding this survey. We also acknowledge the insight and contribution provided by the anonymous reviewers.

Reference

1. Malwenna L, Jayawardana P, Balasuriya A. Effectiveness of a community based health educational intervention in reducing unmet for modern methods of family planning among ever married reproductive age women in the Kalutara district Siri Lanka. Int J Collaborative Res Intern Med Public Health 2012;4(6):1097-114.
2. Cates W, Abdool Karim Q, El-Sadr W, Haffner D, Kalema-Zikusoka G, Rogo K, Petruney T, Averill EMD. Global development. Family planning and the millennium development goals. Science 2010;329(5999):1603. doi: 10.1126/ science.1197080.
3. Lamina MA. Prevalence of Abortion and Contraceptive Practice among Women Seeking Repeat Induced Abortion in Western Nigeria. J Pregnancy 2015;2015(486203). doi.org/10.1155/ 2015/486203
4. World Health Organization. Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. Geneva: Switzerland. WHO 2010: Statistical annex.
5. Centeral Statstics Agency. Ethiopia Mini Demographic and Health Survey 2014. Addis Ababa, Ethiopia and Calverton, Maryland ,USA: Centeral Statistical Agency; 2014.
6. Federal Ministry of Health. Health Sector Transformation Plan (HSTP) from 2015/6-2019/20. Addis Ababa, Ethiopia: FMoH 2015.
7. Centeral Statstics Agency. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Centeral statistical Agency, 2012.
8. Yihunie L, Reda A, Tamene H, Benedict S, Deribe K. Geographical variation and factors influencing modern contraceptive use among married women in Ethiopia: evidence from a national population based survey. Reprod Health J 2013; 10(52)doi:10.1186/ 1742-4755-10-52.
9. Faisal B, Eria H. Micro effects of women's education on contraceptive use and fertility: the case of Uganda. J. Int. Develop 2014;26(6): 763-778.
10. Bbaale E, Mpuga P. Female education, contraceptive use and fertility: evidence from Uganda: Consilience. J Sustain Develop 2011; 6(1):20-47.
11. Malalu PK. Determinants of Use of Modern Family Planning Methods: A Case of Baringo North District, Kenya. Science Journal of Public Health 2014;2(5):424-430.
12. Gizaw A, Regassa N. Family planning service utilization in Mojo town, Ethiopia: A population based study. Journal of Geography and Regional Planning. 2011;4(6):355-63.
13. Central statistics Agency: Summary and statistical report of the 2007 population and housing census.

Addis Ababa, Ethiopia: Federal Democratic Republic of Ethiopia Population Census Commission 2008.

14. UNICEF Planning Office and Evaluation and Research Office, United Nations Children's Fund (UNICEF) (1995) Monitoring Progress Toward the Goals of the World Summit for Children*:* A Practical Handbook for Multiple Indicator Surveys, New York: UNICEF.
15. Hosmer DW, Stanley LS. Applied logistic regression. 2nd edition. John-wilay and Sons.Inc: 2000.
16. Robert M, Taratisio N, Stephen O. The use of modern contraceptives among women of child bearing age attending MCH/FP clinic at Uasin Gishu Sub-county Hospital, Uasin-Gishu county, Kenya. Science Journal of Public Health 2015; 3(4):500-507.
17. Timothy C, Nelson W, Tom K. Contraceptive use among women of reproductive age in Kenya's city slums. International journal of business and social science. 2011;2 (1): 22-43.
18. Henry N, Sekandi J, Sempeera H, Makumbi F.Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey. BMC Womens Health. 2016;16(6).doi 10.1186/s12905-016-0286-6.
19. R.K, Tumwesigye N, Kindyomunda R, Jolly B, Atuyambet L, Kansiime A, Neema S, Ssali F, Akol Z. uptake of family planning methods and unplanned pregnancies among HIV- infected individuals: a cross-sectional survey among clients at HIV clinics in Uganda. J Int AIDS Soc 2011; 14(35):1-11. doi: 10.1186/1758-2652-14-35.
20. Weldegerima B, DenekewA. Women's knowledge, preferences, and practice of modern contraceptive method in Woreta Ethiopia. Res Social Adm Pharm 2008;4(3):302-7.
21. Egzeabher S, Bishaw M, Tegegne T, Boneya D. Modern Family Planning Utilization and Associated Factors among HIV Positive Reproductive Age Women in Debre Markos Referral Hospital Northwest Ethiopia, 2014 G.C. Open Journal of Epidemiology 2015; 5(1):3240.
22. Eshete A. Contraceptive Method Mix Utilization and its Associated Factors among Married Women in Gedeo Zone, Southern Nations, Nationality and People Region-Ethiopia: A Community based Cross Sectional Study. J.Epidemiology 2015;5(212). doi:10.4172/2161-1165.1000212.
23. Berhane Y, Berhe H, Abera G, Berhe H. Utilization of Modern Contraceptives among HIV Positive Reproductive Age Women in Tigray, Ethiopia: A Cross Sectional Study. ISRN AIDS 2013;2013:319724. doi.org/10.1155/2013/319724.
24. Mekonnen W, Worku A. Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia. Reprod Health J 2011; 8(37). doi: 10.1186/1742-4755-8-3:
25. Araya M, Mark S,Yohannes K, Nikki S, David S, Roman B, Dinant G, Yemane B. The role of health extension workers in improving utilization of maternal health services in rural areas in Ethiopia: a cross sectional study. BMC Health Services Research 2012; 12(352).doi: 10.1186/1472-6963-12-352.
26. HIP: Community Health Workers: Bringing family planning services to where people live and work: accedes from https://www.fphighimpactpractices.org, 2016.onlin.