

DEMAND FOR FAMILY PLANNING AMONG WOMEN OF VOLUNTARY
COUNSELING AND TESTING CLIENTS IN PUBLIC HEALTH FACILITIES,
DAWURO ZONE, SOUTH WEST ETHIOPIA

BY: THOMAS TESFAYE (B. PHARM)

A THESIS SUBMITTED TO THE DEPARTMENT OF EPIDEMIOLOGY,
COLLEGE OF HEALTH SCIENCES, JIMMA UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR DEGREE IN MASTERS OF
PUBLIC HEALTH IN GENERAL PUBLIC HEALTH (MPH)

JUNE, 2015
JIMMA, ETHIOPIA

DEMAND FOR FAMILY PLANNING AMONG WOMEN OF VOLUNTARY
COUNSELING AND TESTING CLIENTS IN PUBLIC HEALTH FACILITIES,
DAWURO ZONE, SOUTH WEST ETHIOPIA

BY: THOMAS TESFAYE (B. PHARM)

ADVISORS

1. FESSAHAYE ALEMSEGED (MD, MPHE, ASSOCIATE PROFESSOR)
2. HAIMANOT EWNETU (BSc, MPHE)

JUNE, 2015
JIMMA, ETHIOPIA

Abstract

Background: Demand for family planning is affected by factors such as poor provider client relationships and pressure to have children. A great number of women in the world with an unmet need for family planning comprise women who are HIV positive and those at risk of HIV. In developing countries the provision of family planning services at voluntary counseling and testing settings is low. There is lack of information on demand for family planning and associated factors among women voluntary counseling and testing clients in the study area.

Objective: To assess demand for family planning among women voluntary counseling and testing clients in Dawuro zone, South West Ethiopia, in 2015.

Methods: The study was conducted by using mainly quantitative method supplemented by qualitative study method. Facility based cross sectional survey was conducted from February 20 to March 20, 2015. A total of 401 respondents were included in the study. Consecutive sampling technique was used to select samples. The data were also cleaned and checked for completeness and then entered in to EPI data 3.1 software and exported to SPSS 16.0 soft ware for analysis. Descriptive, bivariate and multivariable analyses were performed. Statistical significance was declared at a value of $p < 0.05$. Ethical clearance was taken from Jimma University and informed verbal consent was established with the participants before the interview.

Result: A total of 401 respondents participated in the study making a response rate of 98.5%. Demand for family planning among women voluntary counseling and testing clients was 71.5% in the study area. Marital status AOR= 0.17 95% CI; (0.04, 0.67), income level AOR= 2.44 95% CI; (1.34, 4.45) and live birth AOR= 3.27 95% CI; (1.35, 7.92) were significant predictors of demand for family planning.

Conclusions and recommendations: The finding showed that majority of women voluntary counseling and testing clients had demand for family planning. Factors affecting demand for family planning and unmet need are related to the clients (women) and providers (health system). Hence providing family planning services continuously at VCT settings is recommended.

Key Words: Demand, client, family planning, voluntary counseling and testing clients, HIV, Integration

Acknowledgement

First of all I would like to thank almighty God for giving me endurance to successfully complete this research.

I would like to thank Jimma University for financial support and Dawuro Zone Health Department for provision of important information. Most importantly, my sincere thanks go for data collectors, supervisors and all the participants for their willingness to participate in the study.

My special thanks also goes to my advisors Dr. Fesehaye Alemseged (Associate professor) and Ms. Haimanot Ewnetu (MPHE) for their unreserved help from the inception of the proposal to finalization of the study. Without them, this thesis wouldn't have been accomplished.

I would like to extend my thanks to my wife Mrs. Woinishet Tadesse for her loveable support, caring and encouragement during my stay in the university, the preparation of this thesis and throughout my study time. I would also like to thank all my families and friends for their unending emotion.

Table of Contents

Abstract.....	iii
Acknowledgement	iv
Abbreviations and Acronyms.....	viii
1. INTRODUCTION.....	1
1.1 BACKGROUND.....	1
1.2 Statement of the problem	2
2. Literature Review.....	5
2.1 Family Planning Demand among Women VCT Clients.....	5
2.2 Factors Associated with Demand for Family Planning among Women VCT Clients.....	6
2.3 Conceptual Framework of Demand for FP among Women VCT Clients.....	10
2.4 Significance of the Study.....	11
3. Objectives.....	12
3.1 General Objective	12
3.2 Specific Objectives	12
4. Methods and Materials.....	13
4.1. Study Area and Period	13
4.2 Study Design.....	14
4.3 Population.....	14
4.3.1 Source Population	14
4.3.2 Study Population.....	14
4.4 Eligibility Criteria	14
4.4.1 Inclusion Criteria	14
4.4.2 Exclusion Criteria.....	14

4.5 Sample Size Determination	15
4.6 Sampling Technique and Procedure	15
4.7 Study variable.....	17
4.8 Data Collection Tool	18
4.9 Data Collection Procedure	18
4.10 Data Quality Assurance.....	19
4.11 Data Processing and Data Analysis	19
4.12 Ethical Considerations.....	20
4.13 Dissemination Plan of the Study Finding	20
4.14 Operational Definitions and Definition of Terms.....	20
5. RESULT	21
5.1 Socio-Demographic Characteristics of Study Participants	21
5.2 Reproductive and Obstetric Characteristics of the Respondents.....	23
5.3 Health Service Related Factors	24
5.4 Demand and Utilization of Family Planning Methods	26
5.5 Factors Associated with Demand for Family Planning.....	28
6. Discussion.....	30
7. Conclusions and Recommendations	34
References	36
Annex 1. English Version Questionnaires	39
Annex 2. In Depth Interview Guideline for Service Providers	48
Annex 3. In Depth Interview Guideline for Health Service Managers.....	50
Annex 4. Dawurothuwa Version Questionnaire	52

List of Figures

Figure 1: Conceptual Framework for FP demand among women VCT Clients (adopted and modified from Bertrand, Magnani, and Rutenberg, 1996)	10
Figure 2: Map of the Study Area (Dawuro zone)	13
Figure 3: Schematic Presentation of Sampling Technique and Procedure	16

List of Tables

Table 1: Socio demographic characteristics of women VCT clients, Dawuro zone, March 2015 (n= 401). 22	
Table 2: Reproductive and obstetric characteristics of respondents, Dawuro zone, March 2015(n= 401)23	
Table 3: Health service related factors among women VCT clients, Dawuro zone, March 2015.....	25
Table 4: Demand and Utilization of FP methods of respondents, Dawuro zone, March 2015	26
Table 5: Logistic regression of selected explanatory variables affecting demand for family planning in Dawuro zone (n= 288)	29

Abbreviations and Acronyms

AIDS- Acquired Immune Deficiency Syndrome
AOR- Adjusted Odds Ratio
ART- Anti Retroviral Therapy
CI- Confidence Interval
COR- Crude Odds Ratio
DHS- Demographic and Health Survey
EDHS- Ethiopia Demographic and Health Survey
ETB- Ethiopian Birr
FP- Family planning
HC- Health Center
HCT- HIV Counseling and Testing
HIV- Human Immune Deficiency Virus
ICPD- International Conference on Population Development
IUD- Intra Uterine Contraceptive Device
M&E- Monitoring and Evaluation
PEPFAR- President's Emergency Plan for AIDS Relief
PLWHA- People Living with HIV/AIDS
PMTCT- Prevention of Mother to Child Transmission of HIV/AIDS
RH- Reproductive Health
SNNP- Southern Nations Nationalities and People
SRH- Sexual and Reproductive Health
SSA- Sub Saharan Africa
STI- Sexually Transmitted Infection
UNFPA- United Nations Population Fund
USAID- United States Agency Aid for International Development
VCT- Voluntary counseling and testing
WHO- World Health Organization

1. INTRODUCTION

1.1 BACKGROUND

Human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS) has become one of the global diseases causing a big trouble since the first cases were identified in the 1970s (1). The process by which a person undergoes counseling which would enable him or her to make an informed choice about being tested for HIV is considered to be voluntary counseling and testing (VCT) (2,3). The primary aim of the VCT service is preventive which is helping people to change their sexual behavior especially to avoid transmitting HIV to sexual partners if sero-positive, and to remain sero-negative if tested negative (4).

The total demand for family planning is the sum of the percentage of women using family planning and the percentage of women with unmet need for family planning (5). An individual's decision to approve a contraceptive method is based on whether they want a (another) child or not (6). Both unintended pregnancy and HIV infection can be protected by a number of ways. These dual protection behaviors include abstinence, monogamous couples using effective contraception, and correct and consistent condom use. Access to HIV/AIDS services without access to FP/SRH services and vice versa can have adverse effects on community health and stop the progress of advances made against HIV/AIDS, unmet FP need, and maternal mortality (7). Although accomplishment of linkage of family planning and HIV/AIDS services may vary from one health facility to another, a continuum of possibilities exists for linking these services (8,9). HIV and family planning interventions have almost similar target audiences; for example, nearly half of HIV infected persons worldwide are childbearing-aged women. Offering these services together may maximize use of scarce resources, improve client access, increase uptake for both service types (10,11).

Ethiopia is the second most populous country in Africa next to Nigeria having a population of nearly 88 million in 2014. Women of reproductive age make up about 45% of the female population and one-fifth of the total population of the country. Women in the country are characterized by high fertility - 4.1 children per woman. The population policy of the country

aims to achieve a Total Fertility Rate (TFR) of 4 children per woman by 2015. 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) to 66 percent by 2015 (12,13). The HIV/AIDS policy and guidelines for voluntary counseling and testing for HIV in Ethiopia recommend that basic FP information and services should be incorporated into the VCT services for all clients regardless of their HIV sero status (11). The Health Sector Development Program (HSDP) IV of the country also recommends service integration, in particular FP-HIV prevention linkages through common messages and dual protection (14).

1.2 Statement of the problem

The percentage of fecund women exposed to the risk of pregnancy who say that they want to wait at least two years for another birth (spacing) or do not want any more children (limiting) but are not currently using a method of contraception are said to be women with unmet need for family planning. Unmet need measures the gap between women's stated fertility desires and their contraceptive behavior (5). Even though some attempts made to integrate family planning with HIV/AIDS services, programs continue to be vertical and treat them as different areas of intervention. More than 200 million women in the world with an unmet need for family planning comprise women who are HIV positive and those at risk of HIV (15). Both family planning (FP) and its integration with HIV programs have been overshadowed by donor emphasis on other urgent health issues, namely HIV, malaria and tuberculosis. This is especially true in sub-Saharan Africa where the HIV epidemic is most acute, fertility rates are high and modern contraceptive use is low (16).

The unmet need for family planning and the HIV epidemic are driven by similar root causes, including poverty and poor access to healthcare (17). Male partner's influence, religion, pressure to have children and poor provider client relationships are among the factors those reduce demand for family planning (18). Study of family planning and HIV integrated services in five countries (Ethiopia, South Africa, Rwanda, Kenya and Uganda) by USAID and FHI showed in most countries except for clients in South Africa, fewer than 40 percent of women in VCT services indicated that they discussed contraceptive methods other than condoms, and very few clients reported having received or being referred elsewhere for a method (19). A study in

Uganda found that 75% of HIV positive women and 34% of HIV negative women had an unmet need for family planning (20).

In Ethiopia the epidemic of HIV/ AIDS placed substantial demand on the country's already strained resources. The prevalence is significantly higher in women than in men which is 1.9% for women and 1.0% for men. Though the policy environment is quite favorable for integrating family planning into VCT, major challenges remain, and the most difficult barrier to effective service integration is a lack of resources. Donors have been very generous in supporting the country's HIV/AIDS program, especially the United States which provided \$852 million in four consecutive years from 2008 to 2011 under the President's Emergency Plan for AIDS Relief (PEPFAR). External funding for family planning, however, has not approached this level, and PEPFAR, the principal funder of VCT services, did not fund family planning (21,22).

According to EDHS 2011 twenty five percent of currently married women have an unmet need for family planning 16% for spacing and 9% for limiting in Ethiopia (22). Even though the contraceptive prevalence of the country among currently married women increased from 29% in 2011 to 42% in 2014, the FP service remains among the lowest in the world. According to Ethiopia Mini Demographic and Health Survey (EMDHS) 2014 in SNNP fertility levels are higher than the national average which is 4.4 children per woman and the use of any FP methods is low in which only 39% of married women were current users of the methods in the region (13). A study done in Dessie town, north east Ethiopia showed that total demand for family planning among women VCT clients was 86 % and both HIV positive and HIV negative VCT clients have high unmet need for FP which was 62% and 53% respectively (23).

In Dawuro zone the contraceptive acceptance rate is described as low coverage which was only 57% in the year 2006 Ethiopian fiscal year and 53,201 clients were tested for HIV services voluntarily among them 87 (0.16%) clients were found to be HIV positive. The zonal report showed that those women at risk for HIV and unwanted pregnancy are reluctant to get the VCT services because of fear of stigma and discrimination. Besides this in the study area Gilgel Gibe three hydro electric power is on construction process which hosts more than 10, 000 workers who are at risk for HIV infection due to behavioral problems and they are also in contact with the

community members (24). Even though providing family planning services in the VCT settings has benefits, insufficient information exists to describe the extent of demand for family planning in VCT settings. This study was intended to address the gaps in demand for and unmet need for family planning among VCT clients in the study area. Additionally demand for family planning among women VCT clients at VCT settings in the zone was not identified.

2. Literature Review

Incorporating family planning services into HIV services promotes a rights-based approach to women's health. The 1994 ICPD program of action highlighted the importance of ensuring access to family planning for all in order to safeguard women's right to decide the number and timing of their children. Integration of services can help women by empowering them to exercise this right and realize their pregnancy intentions. From a reproductive health-based and rights-based perspective, all women should have access to family planning methods for avoiding unintended pregnancies. In addition women VCT clients have particular needs for contraception to avoid unintended pregnancy regardless of their HIV sero status. Through the linkage of VCT services with FP services an effort is to be done to improve knowledge, attitude, and practice of clients. This will help to reduce missed opportunities and hence will enable to reach more people, especially women who are at higher risk (4,25,10).

2.1 Family Planning Demand among Women VCT Clients

Linking family planning services with VCT provides a wider array of services and benefits clients by encouraging mutually reinforcing behaviors. For example, increasing the use of condom prevents both unintended pregnancies and HIV (9,26). A study in Haiti showed at VCT site with integrated reproductive health services, 19% of clients visiting for an HIV test became new users of family planning methods. Another study also showed introducing contraceptive services into a Rwandan VCT clinic resulted in increased use of modern contraceptives, reduced contraceptive discontinuation (from 50 to 15%) and a significantly reduced annual pregnancy rate in HIV-positive women (from 22% to 9%) (27). Studies done in five African countries (Ethiopia, South Africa, Rwanda, Kenya and Uganda) showed that Women VCT clients used modern contraceptives. In Ethiopia, South Africa, and Rwanda, injectables were the most used method of contraception. In Kenya and Uganda, the condom was the method reported most (19).

Provision of family planning services along with VCT services is preferred by clients and also has the potential for being more cost-efficient. If contraceptives are consistently provided and utilized, they can improve the quality of life for both HIV-positive and HIV-negative women and their families. The use of contraceptives by HIV-positive women can subsequently avert the birth of a significant number of HIV-positive infants and cut the costs associated with PMTCT.

Studies done in Uganda show that high HIV prevalence, coupled with high fertility and limited access to FP and PMTCT services, implies that many children are born to HIV-positive parents (28,29). Studies showed that in Kenya and Malawi only 26% and 19% of the HIV- positive women were using contraceptives respectively, yet about half (54%) of the women in Kenya and 40% in Malawi reported that their last child was either unplanned or unwanted (29). A study done in Tanzania showed that 60% of women VCT clients had a demand to get family planning services at health facilities and from them 81% were using at least one family planning method (30).

A study done in Oromiya region showed that among women VCT clients 70% were using contraceptives (31). According to EDHS 2011 almost one in every three Ethiopian women (29 %) had a met need for family planning of which 16 % for spacing and 12 % for limiting. The total demand for family planning among currently married women was 54%. A little more than half (53 %) of this demand was satisfied (22).

2.2 Factors Associated with Demand for Family Planning among Women VCT Clients

Sociodemographic Characteristics

In the studies done in South Africa, Ethiopia and Rwanda VCT clients were generally young whose mean age was less than 30 years in these countries (19). A study done in Tanzania showed that utilization of modern FP method was found to increase with age among VCT clients and the problem of FP services accessibility was perceived to be more prevalent in rural areas compared to urban settings (30). A study done in Dessie town, North East Ethiopia showed also that majority of women VCT clients were youth in which 75% of them between the age of 15 and 24 years and the youth were more likely to have high unmet need for FP than those who were beyond 24 years (23). A study done in Oromiya region, Ethiopia showed that majority of female clients after introduction of FP in VCT facilities were young or 74% were between the ages of 15-24 years old; most women were single or 64% never married; for occupation more than 40% of the clients were still in school; most of the clients were urban population with 86% living in urban areas; well-educated VCT clients were 62.5% secondary or higher education (31).

Educated women are considered more likely to demand, seek and question service providers and adopt a contraceptive method (32).

Studies done in Uganda showed that among the HIV-negative women, the proportion with unmet need of FP was significantly higher among the married which were 54.6%, compared to the unmarried ones which were 45.6%. The study also showed that higher proportion of unmarried women VCT clients with HIV result negative status had higher level of education (37%) than their married counterparts which were 28%; and lower proportion of unmarried women VCT clients with HIV result positive were less educated 22.6% than 29.1% of the married ones (29).

Live birth

Since most VCT clients are young age, it was found in studies that low rates of childbearing. Studies showed that nearly half of the women attending VCT in Ethiopia, Kenya, and Uganda had not had a child (19). A study done in Oromiya region also showed that 71% of the clients had no children (31).

Future child desire

A study done in Uganda showed desire for large (6 or more children) family size was higher among the married women compared to the unmarried ones irrespective of their HIV status. Among the HIV negative women, desire for a (another) child was significantly higher for the unmarried women which was 51.4% compared to the married ones which was 41.9%; among the HIV positive, desire for a (another) child was higher for the married ones (18.1%) compared to the unmarried ones which was 11.8%. Also higher proportion of unmarried women VCT clients with HIV result negative status (71%) desired smaller family size than 52% of their married counter parts. Also a higher proportion of unmarried women (63.4%) desired a (next) pregnancy after at least two years than their married counter parts which was 51.4%. (29)

Ever heard of FP methods

According to EDHS 2011 knowledge of at least one method of contraception is nearly universal among women in Ethiopia, regardless of marital status and sexual experience. Ninety seven percent of women ever heard of a modern method and 50% of them ever heard of a traditional

contraceptive method. More than 90% of women have ever heard about the pill and injectables. Long acting method is the least known modern method in which only 3% of all women interviewed have ever heard of this method (22).

Access to Media

A study in India showed that the use of family planning methods was found to be positively correlated with women's exposure to information on family planning methods in television or radio. The practice of family planning methods was significantly higher among the women who were exposed to television. The odds ratio analysis indicated that the married women who were exposed to family planning messages in television were 2.44 times more likely to use the family planning methods compared to the women who were not exposed to these programmes. Women who were exposed to radio broadcasting messages on family planning methods were 1.66 times more likely to use the family planning methods than those not exposed to this medium (33).

HIV sero status

A study done in Zimbabwe showed that there is a significantly higher level of unmet need for contraception among HIV-positive women with a recent test result (19%) as compared with other women (8%). The study showed that in Zimbabwe recently tested HIV-positive women have twice the odds of having an unmet need for contraception compared with HIV-negative women. In Zambia, recently tested HIV-negative women are most likely to have an unmet need for contraception. These results correspond to the heterogeneous findings on unmet need from the bivariate analysis (25). A study done in Oromiya region show that HIV prevalence was nearly 8%, which is considerably higher than in the general Ethiopian population, as expected among clients seeking HIV tests (31). A study done in Dessie town, North East Ethiopia showed that both HIV positive and HIV negative VCT clients have high unmet need for FP and unmet need was not affected by sero-status. On the other hand in the study HIV positive VCT clients were more likely intended to avoid child bearing for the future (for the next 2 years or beyond) than HIV negatives (23).

Family Planning Counseling at VCT Settings

During FP counseling the client- provider interaction can provide an opportunity to incorporate HIV and VCT messages. The benefits of VCT and birth spacing can be discussed regardless of their sero status (4). Given that most clients of VCT services are sexually active and of reproductive age, the integration of contraceptive services into VCT programs allows providers to holistically address clients' dual risks of HIV infection and unintended pregnancy. Furthermore, unlike prevention of mother-to-child transmission (PMTCT) programs, which are implemented primarily in antenatal care clinics, VCT services provide an opportunity to reach women and couples with family planning services before they become pregnant (34). A study done in Tanzania showed that health providers discussed family planning issues with about two thirds (67.3%) of clients. The use of condoms was discussed both as HIV prevention method as well as family planning method although it is to lesser extent (30).

A study in Ethiopia showed integrating FP into VCT services led to increased effectiveness of both programs. The strategy broadened the coverage of the FP program. The number of clients after integration of FP services into VCT services had significantly increased compared to before integration of the two services. Clients who were counseled on both HIV and pregnancy prevention increased from 86% to 96%, on condom use from 61% to 87%, and on clients' contraceptive use increased from 6% to 43%. Most clients felt that the counseling sessions provided a good opportunity to learn about FP options, and an increase in contraceptive uptake (15).

2.3 Conceptual Framework of Demand for FP among Women VCT Clients

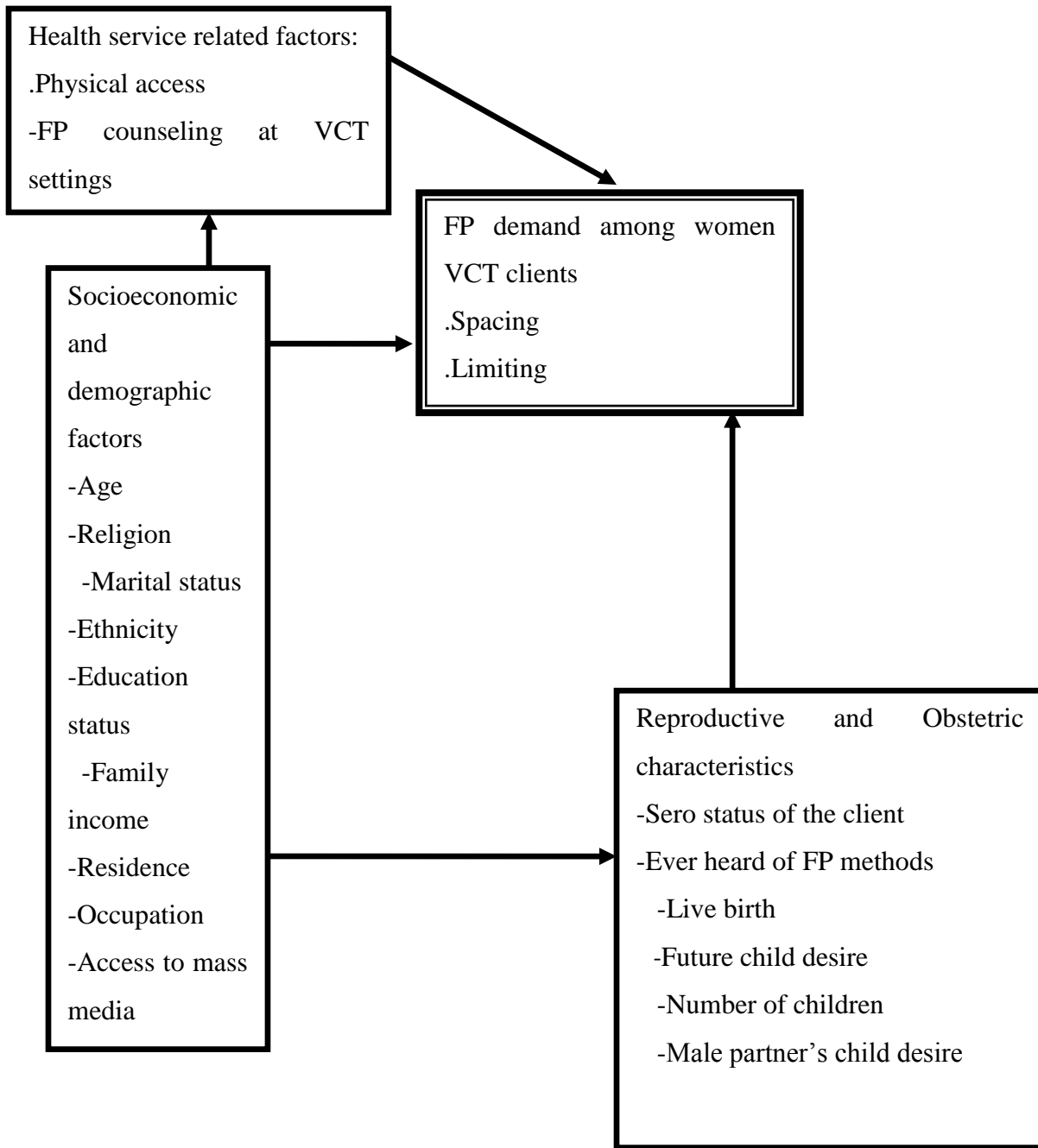


Figure 1: Conceptual Framework for FP demand among women VCT Clients (adopted and modified from Bertrand, Magnani, and Rutenberg, 1996)

2.4 Significance of the Study

Incorporating FP into existing VCT services will have an important role in offering contraception as an integral part of comprehensive, client-centered HIV services, particularly during post test counseling depending on the client's receptivity in the study area. It will also offer options for preventing unintended pregnancies to VCT clients. The integration of both services provides preconception counseling to optimize positive health outcomes. Therefore the finding of this study will help to target interventions to providers and the setting of health facility where to focus on incorporating FP into VCT services.

No research has been conducted on demand for FP among women VCT clients in the study area. The finding of the study will be important to understand factors that influence demand for FP at VCT settings. The finding from study will also be source of information for planners and stakeholders to identify area of intervention and to improve demand and utilization of FP at VCT settings.

3. Objectives

3.1 General Objective

To assess the demand for family planning among women voluntary counseling and testing clients and associated factors in public health facilities, Dawuro zone.

3.2 Specific Objectives

1. To determine the family planning demand among women clients of VCT settings in public health facilities, Dawuro zone.
2. To identify factors associated with demand for FP among women VCT clients in public health facilities, Dawuro zone.

4. Methods and Materials

4.1. Study Area and Period

A study was conducted in Dawuro zone, South West Ethiopia from February 20 to March 20, 2015. Dawuro zone is located 480 km from Addis Ababa and 285 km from the regional capital Hawassa. Its boundaries are Wolayita zone in the East, kembata tambaro zone and Hadiya zone in the North East, Gamo Gofa zone in the South, Konta special woreda in the West and Oromiya region in the North West. Based on 2007 national census projection Dawuro zone has currently a population of 618,512 of which 303,071 are females. Women of reproductive age are 146, 587 and women VCT clients are 31,921 in number. The zonal administrative structure is currently divided in to 5 woredas and 1 town administration. There are 1 general hospital, 23 health centers and 175 health posts which are delivering health care service for population in the zone and for other population around the zone. The public health facilities in which the study was conducted were seven in number consisting of one general hospital and six health centers. Tarcha general hospital is located in Tarcha town and is giving comprehensive services for more than one million people and each of the health centers found in this zone namely Waka, Tocha, Gesa, Tarcha, Wara and Mari health centers are providing services for more than twenty five thousand people.



Figure 2: Map of the Study Area (Dawuro zone)

4.2 Study Design

Facility based cross sectional study was employed by using mainly quantitative method supplemented by qualitative study method.

4.3 Population

4.3.1 Source Population

All women VCT clients in Dawuro zone in age group 15-49 years were considered as a source population.

4.3.2 Study Population

Quantitative Study

The study populations were all women VCT clients in the age group 15-49 years who were attending voluntary counseling and testing services in Dawuro zone public health centers and hospital during the study period.

Qualitative study

VCT counselors and health facility managers from the selected Dawuro zone public health facilities during the study period.

4.4 Eligibility Criteria

4.4.1 Inclusion Criteria

Women VCT clients with in the age group of 15 to 49 years who were visiting health facilities at the time of data collection were included.

Clients who become volunteer to participate in the study.

4.4.2 Exclusion Criteria

Women VCT clients who were seriously ill and could not communicate.

4.5 Sample Size Determination

For Quantitative Study

A single population proportion formula was used to determine the sample size.

$$n = Z (\alpha/2)^2 * p (1-p) / d^2.$$

Where,

n = sample size

Z $\alpha/2$ =confidence level (1.96)

d=margin of error (0.05)

p= 86% -the proportion of sexually active women VCT clients demand for family planning at VCT centers in Northeast Ethiopia from similar studies (23)

$$\text{So } n = (1.96)^2 * 0.86(1-0.86) / (0.05)^2$$

This gives n= 185

Finally, considering a design effect of two and non response rate of 10% total of 407 women were needed.

For Qualitative Study

Fourteen in depth interview for VCT counselors and managers of the selected health centers and hospital were conducted.

4.6 Sampling Technique and Procedure

Quantitative Study

Considering representativeness 30% of total 24 health facilities providing VCT services (7 health facilities) were included in the study. The health facilities were selected by using simple random sampling. From these selected health facilities the calculated sample size was used to recruit study subjects based on the total number of VCT clients proportional to the facilities clients. To allocate the study subjects in the VCT centers proportionally, first the average numbers of clients who visit the VCT centers monthly during data collection period was estimated based on the previous monthly client flow of the units which was obtained by referring monthly report format and client registration book for a month prior to data collection. Based on the information obtained from each VCT centers, consecutive sampling was employed to identify study participants from each VCT centers. In consecutive sampling every woman VCT clients that meet the inclusion criteria were selected in the interview in the selected health facilities until the required sample size was obtained during the data collection period.

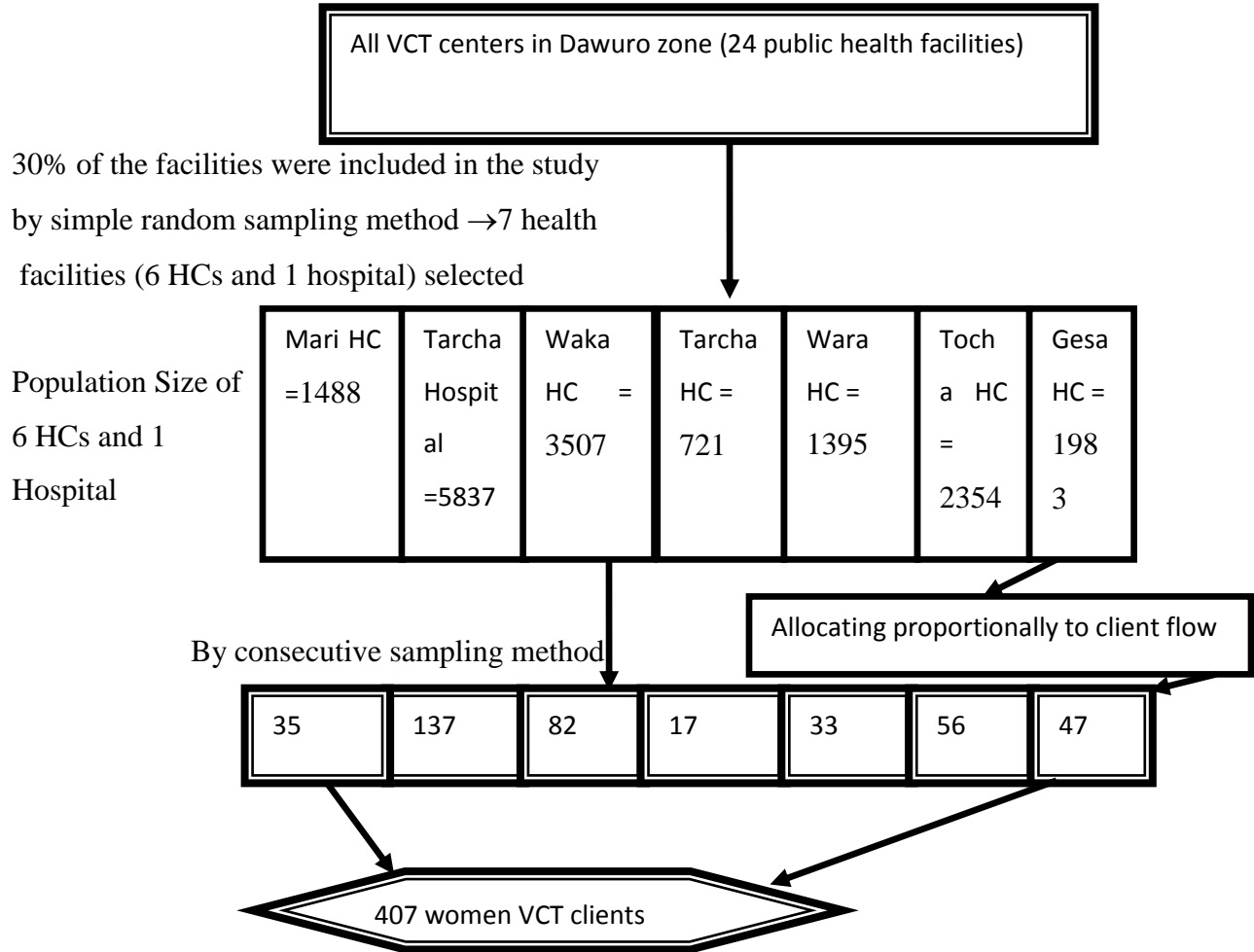


Figure 3: Schematic Presentation of Sampling Technique and Procedure

Qualitative Study

For qualitative study purposively in depth interview was conducted for seven VCT counselors and for seven managers of the health facilities.

4.7 Study variable

Dependent variable/ outcome variable: demand for family planning

Independent variables/ predictors:

Socioeconomic and demographic factors

Age

Religion

Marital status

Ethnicity

Educational status

Family income

Residence

Occupation

Access to mass media

Reproductive and obstetric characteristics

Sero status of the client

Ever heard of FP methods

Live birth

Future child desire

Number of children

Male partner's child desire

Health service related factors

Physical access

FP counseling at VCT setting

4.8 Data Collection Tool

For quantitative part of the study, the data was collected by using face to face interview with pre tested structured questionnaire initially prepared in English and translated to Dawroigna and re-translated back to English by two different persons to check the reliability of the instrument. The issues included in the questionnaire were socio demographic characteristics, discussions on family planning with counselors, contraceptive use and intentions and child desire information. In addition, open ended semi-structured interview guides were used for the qualitative study. The main issues those were addressed in the in-depth interviews were professional suitability, possibility, and readiness of VCT service providers and managers for integrating family planning services in to VCT setting.

4.9 Data Collection Procedure

Quantitative study: the data was collected by face to face interview with 7 diploma nurses and under the supervision of 1 health officer and 1 B Sc nurse who were recruited as supervisors and trained on data collection tool which was translated into version of Dawroigna language. Training was given for data collectors for one day prior to data collection. The study participants were interviewed after post test counseling at the exit. Before starting the interview the counselors were informed asking the participation of clients in the study and then the counselors gave numeric code to clients for those who were volunteers to participate in the study. The numeric code was given by the counselor and was not known by anybody else and then it was registered on the questionnaire. After interviewing the participants all the questionnaires were collected from the data collectors and given to respective counselors so that they register the sero status of the clients according to their codes on the questionnaire. Then the questionnaires were collected from the counselors by the investigator.

Qualitative study: data collection was conducted purposively through in depth interview of service providers and managers of the health facilities. Fourteen in depth interviews were conducted from each public health facilities included in the study. Seven VCT counselors and seven health facility managers responded for the in depth interview. All the VCT counselors were clinical nurses by profession and two of the health service managers were B sc nurses, four of them were public health officers and one of them was MPH. Four VCT counselors worked at

least for three years, two of them worked for two years and one of them worked for one year at the VCT settings. The interviews were tape recorded as well note was taken. The data collection was carried out by the principal investigator.

4.10 Data Quality Assurance

A one day training was given to data collectors and supervisors on over view of the need to conduct a research, target population of the study, how to approach and to collect the required information from the respondents. Duties of data collectors and supervisors to implement the fundamental principles of research ethics (respect for persons, beneficence and justice) were also presented. The issue of confidentiality and privacy was stressed during the training session. Client exit interviews were done in separate rooms or in areas where the interviews would not be heard by anybody else. Discussion on the data collection tool (questionnaire) was conducted. Data were collected under the supervision of the principal investigator and two health officers from the health facilities. Pre-test was conducted on 21 women VCT clients in Kechi health center which is found in the zone. Based on the findings and feedback obtained from the pre-testing process, the questionnaire was updated and refined. Pre-testing helped to rephrase the wording of the questions, correction of flow and appropriate skipping pattern of questions, and also gave experience to data collectors. Data was cleaned and checked for completeness at daily basis.

4.11 Data Processing and Data Analysis

Quantitative study: data was checked for completeness and then entered in to EPI data 3.1 software then cleaned and exported to SPSS 16.0 application soft ware for analysis. Descriptive summary using percentages, frequency distributions, cross tabs and appropriate graphic presentations were used to present the study results of socio-economic factors, family planning information, HIV sero status and desire for future child bearing. Bivariate analysis was employed to check association between dependent and independent variables. All variables with a p-value <0.25 in the bivariate analysis became the candidate for multivariable logistic regression. Multivariable logistic regression model was fitted to identify factors affecting demand for family planning. Variables with p-value less than 0.05 were considered as statistically significant. The degrees of association between dependent and independent variables was assessed using OR at 95% CI.

Qualitative data: the entire audio taped interview was transcribed. Then the transcript was translated in to English by the principal investigator. Then response was color coded and categorized accordingly and analyzed thematically so as to supplement the quantitative findings.

4.12 Ethical Considerations

Ethical clearance was obtained from Health Research and Post Graduate College of Health Sciences Ethical Review Board of Jimma University. Official cooperation letter was obtained from Dawuro zone health department. Finally, informed consent was obtained from the study participants by informing the purpose of the study, its procedure and confidentiality prior to data collection.

4.13 Dissemination Plan of the Study Finding

The findings of the study first and foremost will be rendered to Jimma University scientific community in a defense. It will be shared to SNNPR health bureau, Dawuro zone health department, woreda health offices, respective hospitals and health centers, and other organizations working on family health such as Integrated Family Health Program and Engender health in the study area. Further attempt will be made to publish it on national or international scientific journals.

4.14 Operational Definitions and Definition of Terms

Integrated Services – a VCT client and counselor interaction that include counseling on family planning and referral of clients to the family planning clinics.

Demand for family planning - if a woman VCT client in reproductive age group wants to limit or postpone child bearing considered as having demand for family planning.

Ever user - refers to a woman who has practiced family planning methods sometime in the past but not using at the time of this study.

Current user – refers to a woman who is using family planning method at the time of the study.

Access to health facility- refers to physical availability of health centers within 5 km distance or 1 hour travelling time from households in this study (35).

5. RESULT

5.1 Socio-Demographic Characteristics of Study Participants

Of 407 women eligible for the study information was obtained from 401 women making a response rate of 98.5%. Six questionnaires were excluded from analysis due to incompleteness. Two hundred fifty six (63.8%) and 145(36.2%) of respondents were from rural and urban respectively. The mean age for women was 24.88 with SD of ± 5.93 ranging from 15 to 49 years. Majority of the respondents 215(53.6%) are within the age group of 15 to 24 years as shown below in Table 1. Most VCT service providers and health facility managers from in depth interview reported that most of their VCT clients were young. According to one health facility manager in depth interview response “...*Most of the clients were young with age greater than 20 years and below 30 years old and partners visiting for pre-marriage service*”.

Concerning ethnicity of the study participants’ majority 383(95.5%) of women belong to the Dawuro ethnic group. Women practicing the Protestant faith were 197(49.2%) while 181(45.1%) belong to the orthodox Christians. Catholics were 23(5.7%) of the total respondents. Concerning marital status of the clients’ majority 195(48.6%) of them were unmarried, 172(42.9%) were married, 11(2.7%) were widowed and 23(5.7%) were divorced. Majority of the clients 321(80%) were able to read and write where as 80(20%) were illiterate. Concerning occupational status 94(23.4%) were house wives, 81(20.2%) were students, 71(17.7%) were government employees, 26(6.5%) were merchants, 23(5.7%) were farmers and 49(12.2%) were daily laborers. Reported average household income was 851.10 with SD of ± 833.47 Ethiopian birr. Concerning access to mass media 263(65.6%) and 103(25.7%) of the respondents had radios and televisions respectively in their households. The details of socio demographic characteristics of the respondents are shown in table1.

Table 1: Socio demographic characteristics of women VCT clients, Dawuro zone, March 2015 (n= 401)

Variables	Frequency	Percent
Age (years)		
15-24	215	53.6
25-34	127	39.2
>=35	29	7.2
Religion		
Orthodox	181	45.1
Protestant	197	49.2
Catholic	23	5.7
Ethnicity		
Dawuro	383	95.5
Amhara	9	2.2
Wolayita,konta &others	9	2.2
Educational status		
Literate	321	80
Illiterate	80	20
Residence		
Rural	256	63.8
Urban	145	36.2
Marital status		
Married	172	42.9
Unmarried	195	48.6
Widowed	11	2.7
Divorced	23	5.7
Work status		
Unemployed	57	14.2
Student	81	20.2
Government employee	71	17.7
Merchant	26	6.5
Farmer	23	5.7
Daily laborer	49	12.2
House wife	94	23.4
Family income/month		
<500	192	47.9
500-1500	153	38.2
>1500	56	14
Radio in HH		
Yes	263	65.6
No	138	34.4
Television in HH		
Yes	103	25.7
No	298	74.3

5.2 Reproductive and Obstetric Characteristics of the Respondents

Among the respondents 207 (51.6%) had ever given live birth. Concerning their sero status 16(4%) were HIV positive and 385(96%) were HIV negative. Among the HIV-negative women, desire for a (another) child was 179(93.2%) for the unmarried whereas it was 128(79%) for the married. Among the HIV-positive women, desire for a (another) child for the married was 7(70%) whereas for the unmarried was 2(66.7%). From the total respondents 327(81.5%) wanted to have children in the future and 254 (63.3%) male partners of the respondents wanted to have children in the future. From 206 women having children 61(29.6%) had one child and 145(70.4%) had 2 or more children. Table 2 below shows reproductive and obstetric characteristics of the respondents.

Table 2: Reproductive and obstetric characteristics of respondents, Dawuro zone, March 2015(n= 401)

Variables	Frequency	Percent
HIV status		
HIV positive	16	4
HIV negative	385	96
Had ever given live birth		
Yes	207	51.6
No	194	48.4
Number of children		
No	195	48.6
1	61	15.2
≥2	145	36.2
Future child desire		
Yes	327	81.5
No	65	16.3
I don't know	9	2.2
Partner child desire		
Yes	254	63.3
No	37	9.3
I don't know	110	27.4

5.3 Health Service Related Factors

Only 50(12.5%) respondents were counseled for family planning methods by health professionals at the VCT settings. From these 17(34%) counseled for condom, 15(30%) counseled for injectables, 9(18%) for implant and the rest counseled for others among which 48(96%) were HIV negative and the rest 2 were HIV positive. Most of the VCT councilors from in depth interview stated that if clients are in need to get the family planning services, referral is made to the maternal and child health unit in the facility so that they can be counseled and provided the FP methods based on informed choice. One clinical nurse councilor during in depth interview said, *“...If our VCT clients request to get family planning services, most of the time rather than counseling at VCT settings, intra facility referral to maternal and child health unit is made.”*

One health facility manager from in depth interview also said,

“... The FP information could be provided by councilors but the service to be provided by FP provider”.

One of the VCT counselors from in depth interview explained,

“...Our facility was providing short term FP methods such as pills and condoms for VCT clients at VCT room but no longer integration currently because the ongoing new construction in our compound made the former room in which the services were provided to be detached from the old building and currently we do not have enough rooms to provide the services jointly”.

Most of the counselors and managers from in depth interview said that it is possible to integrate both FP and VCT services. But practically the integration was weak due to inadequacy of rooms, VCT service providing rooms being far from FP service providing rooms, shortage of trained man power to deliver the services and most of the logistics for FP were found at MCH units rather than being available at VCT settings. Even though the organizational policy supports integration of FP with VCT services, it was weakly practiced in the facilities. The integration of the two services was rarely practiced in cases in which clients ask to get the FP service intra facility referral made. But the service providers by themselves were not ready to deliver the services through integration rather they prefer the service provision separately. In some facilities where the youth friendly services were provided clients particularly the youth prefer the provision of the services in one room because they fear not to be seen by others in FP clinics.

The councilors have different opinions concerning counseling for FP services at VCT settings in which among those agreed the service provision some of them said that the counseling to be made during post test counseling, the others said that the counseling to be made during pretest or both of the time. One counselor also stated, “...It is better to provide FP service during post test and during chronic follow up period for HIV positive clients”.

Contrary to this one counselor said, “...It is better to provide the service of FP during pre test so that to reduce the emotional feeling discomfort of post test”.

Concerning access to health facilities 323(80.5%) clients live within 5 km distance from the health facilities. The main source of information about the VCT services for 248(61.8%) respondents was health facilities. Most of the respondents 222(55.5%) visited the VCT centers for the first time without their partner. Only 166(47.2%) of the respondents’ male partners were tested and 164(46.3%) knew the status of their partner. Concerning the reasons for visiting the VCT centers 288(72%) of the respondents wanted to know their HIV status, 48(12%) of them for pre-marriage and 44(11%) of them responded since they were in doubt as shown below in Table 3.

Table 3: Health service related factors among women VCT clients, Dawuro zone, March 2015

Variables	Frequency	Percent
Counseling on FP methods		
Yes	50	12.5
No	351	87.5
Distance of the facility from home		
≤ 5 km	323	80.5
> 5km	78	19.5
Partner HIV tested		
Yes	166	47.2
No	186	52.8
Know partner’s HIV status		
Yes	164	46.3
No	190	53.7
Reasons for visiting VCT centers		
To know HIV status	288	72
In time of illness	11	2.8
Pre-marriage	48	12
In doubt	44	11
Other	9	2.2

5.4 Demand and Utilization of Family Planning Methods

Among the respondents 363(90.5%) have ever heard about any family planning methods and the source of information for majority 238(65.6%) of them was from public health sector. Three hundred fifteen (86.8%) heard about injectables, 287(79.1%) about pills, 228(62.8%) about implants, 199(54.8%) about condoms and 56(15.4%) ever heard about IUD as a method of contraceptives. Among current non users of FP methods two hundred six (71.5%) had demand for family planning methods. From the total respondents 217(54.1%) had ever used any FP methods, 113(28.2%) were current users of any FP methods. Table 4 below shows demand for and use of FP methods.

Table 4: Demand and Utilization of FP methods of respondents, Dawuro zone, March 2015

Variables	Frequency	Percent
Ever heard of FP methods		
Yes	363	90.5
No	38	9.5
Demand for FP methods		
Yes	206	71.5
No	82	28.5
Ever used FP methods		
Yes	217	54.1
No	184	45.9
Current users of FP methods		
Yes	113	28.2
No	288	71.8

Among current users of FP methods majority of the respondents 52(46%) were current users of injectables and 27(23.8%) of them were users of condoms. Most of the councilors and health facility managers from in depth interview also stated that those with demand for FP mostly needed short term FP methods and were users of these methods.

Result from in depth interview by one health facility manager explained as follows,

“...Most of our VCT clients needed short term FP methods. Most of the VCT clients need to have a Depo-Provera. Some of them particularly the married ones prefer to have long term FP methods like implants. If the clients needed FP services they did not get from VCT setting but

referrals made to MCH case team. Women of reproductive age group mostly within the age group of 18 to 25 years seek to get the FP services”.

From five HIV positive women two of them (40%) were users of implants and IUD. Most of the VCT service providers during in depth interview stated that HIV positive clients were mostly users of long term FP methods in addition to condom. One health facility manger from in depth interview also expressed as, “*...Most of HIV positive clients prefer long term FP methods in addition to condom*”. One of the clinical nurse counselors stated during in depth interview as follows, “*...Concerning the sexual activity of HIV positive woman using condom is better to both couples to prevent transmission of STIs and different HIV strains*”.

All of the health service managers said that the extent of unmet reproductive health need of the clients was high. Most of the health service managers and counselors expressed they planned to integrate the VCT and FP services, but practically the integration was weak due to inadequacy of rooms, VCT service providing rooms being far from FP service providing rooms, shortage of trained man power to deliver the services and most of the logistics for FP were found at MCH units rather than being available at VCT settings. Findings from in-depth interview by one health facility manager “*...Advantages of offering FP services to VCT clients are: making easily accessible clients to use FP services and addresses the need of clients. The opportunities in linking the two services were presence of both services in the facilities and presence of supporting guidelines to integrate both services. The obstacles in linking the two services were poor intra facility referral and lack of attention from provider side*”.

Among HIV positive women 10(62.5%) of them had ever used any FP methods and 5(31.2%) were current users of FP methods. Among HIV negative women 207(53.8%) had ever used FP methods and 108(35.6%) were current users of FP methods. The unmet need for FP among women VCT clients was 206(64.6%), for HIV positive women it was 11(68.2%) and for HIV negative women it was 195(64.4%). Thirty two (10%) of women with demand for FP had unmet need for limiting whereas 174(54.6%) of them had unmet need for spacing. The unmet need for FP among married women was 80(50.6%) and for unmarried ones was 103(76.9%). Demand for

FP was 158(91.9%) for married respondents, 138(68.7%) for unmarried, 6(54.5%) for widowed and 21(91.3%) for divorced ones. (Table 5)

5.5 Factors Associated with Demand for Family Planning

On bivariate analysis factors became candidate for multivariable logistic regression analysis were: marital status, live birth, future child desire, age and income level. Variables like marital status in which widowed women compared to married ones and unmarried women compared to married ones, women whose family monthly income was between 500 and 1500 ETB compared to those with income less than 500 ETB, women in the age group of 25 to 34 year compared to those in 15 to 24 age group and women had ever given live birth compared to women who did not give ever live birth were found statistically significant in the bivariate analysis. Variables such as HIV sero status, education level, access to mass media, access to health facility and FP counseling were not associated with demand for FP. Also none of the explanatory variables were associated with HIV sero status. Table 6 below shows bivariate analysis of some of the variables affecting demand for FP.

Table 5: Logistic regression of selected explanatory variables affecting demand for family planning in Dawuro zone (n= 288)

Variables	Demand for FP		COR	95% CI	AOR 95% CI
	Yes	No			
Marital status	N (%)	N (%)			
Unmarried	103(62.8%)	61(37.2%)	0.29(0.15, 0.56)**		0.62(0.25, 1.50)
Widowed	6(54.5%)	5(45.5%)	0.21(0.05, 0.78)*		0.17(0.04, 0.67)**
Divorced	17(89.5%)	2(10.5%)	1.48(0.30, 7.15)		1.34(0.26, 6.73)
Married	80(85.1%)	14(14.9%)	1.00		1.00
Age					
15-24 year	115(64.6%)	63(35.4%)	1.00		1.00
25-34	80(85.1%)	14(14.9%)	3.13(1.64, 5.97)**		1.72(0.72, 4.11)
>35	11(68.8%)	5(31.2%)	1.20(0.40, 3.62)		0.66(0.14, 3.77)
Income					
500-1500 ETB	92(80%)	23(20%)	2.21(1.25, 3.92)**		2.44(1.34, 4.45)**
>1500	22(73.3%)	8(26.7%)	1.52(0.63, 3.67)		1.37(0.53, 3.50)
<500	92(64.3%)	51(35.7%)	1.00		1.00
Ever given live birth					
Yes	105(85.4%)	18(14.6%)	3.69(2.04, 6.66)**		3.27(1.35, 7.92)**
No	101(61.2%)	64(38.8%)	1.00		1.00
Future child desire					
Yes	172(71.7%)	68(28.3%)	1.00		1.00
No	32(76.2%)	10(23.8%)	1.26(0.59, 2.71)		0.83(0.32, 2.18)
Don't know	2(33.3%)	4(66.7%)	0.19(0.03, 1.10)		0.13(0.01, 1.02)

Statistically significant, **p<0.01, *p<0.05

In multivariable logistic regression factors significantly affecting demand for FP were marital status, income and live birth. Widowed women were less likely to have demand for FP than the married ones AOR 0.17 95% CI; (0.04, 0.67). Women whose family monthly income was between 500 and 1500 ETB were two times more likely to have demand for FP than those with monthly income less than 500 ETB AOR 2.44 95% CI; (1.34, 4.45). Those women who had ever given live birth were three times more likely to have demand for FP than those who did not give ever live birth AOR 3.27 95% CI; (1.35, 7.92). (Table 5)

6. Discussion

This facility based study used information from women of reproductive age voluntary counseling and testing clients to determine demand for family planning, unmet need for family planning and attempted to assess factors associated with demand for FP and unmet need of FP in Dawuro zone. In addition to this information was obtained from VCT service providers and managers of the health facilities to supplement the information obtained from clients. Consequently factors influencing demand for FP and unmet need for FP were identified in the zone.

In our study the HIV prevalence was 4% which is lower than the finding of studies done in Kenya in which 8% of women VCT clients were HIV positive (30). The inconsistency between the findings of VCT clients might be due to the differences in exposure to risky behaviors including unsafe sexual practices. In our finding among the HIV-negative women, desire for a (another) child was higher for the unmarried which was 93.2% compared to the married 79%. Among the HIV-positive, desire for a (another) child was higher for the married (70%) compared to the unmarried, 66.7%. This finding is consistent with a study done in Uganda (29). The possible explanation for this might be that since most of unmarried HIV negative women do not have a child, their desire to have a child is higher than that of married counterparts. Whereas unmarried HIV positive women fear the risk of transmission of HIV to their infant when they become pregnant and give birth since they fear stigma and discrimination, and do not get proper care from male partners. However married HIV positive women along with their husband they can properly take the anti retroviral drugs and other necessary cares to give birth to healthy infant and help his or her growth.

Our finding showed that among the respondents 90.5% have ever heard about any family planning method which is lower than the finding of EDHS 2011 in which 97% of women ever heard of a modern contraceptive method (22). This difference might be due to the difference in information, education and communication dissemination. In our study demand for family planning among women voluntary counseling and testing clients was found to be 71.5%. This finding is higher than the study done in Tanzania which showed that 60% of women VCT clients needed to get family planning services at health facilities but it is lower than the study done in North east Ethiopia which was 86% (23,30). The differences might be due to the fact that socio

cultural factors, health facility factors and differences in the study setting. In our finding demand for FP among married women was 91.9%, which is found to be higher than those of unmarried women (68.7%), and higher than the finding of studies done in Sudan in which demand for FP among married women was 71%, also higher than finding of studies done in Ethiopia which was 54% (22,36). The possible explanation for this might be that married women have better information and awareness about family planning methods whereas unmarried women are with less support from their partners. The difference in demand for FP between this study and the other studies might be due to socio cultural difference and difference in reference population.

In our finding also all of HIV positive women participated in the study had demand for FP whereas 78.7% of HIV negative women were with demand for FP methods. This difference might be due to the fact that HIV positive women fear the risk of pregnancy to prevent the transmission of the virus to their child and for promoting their own health. Our study showed that the demand for FP among women who had ever given live birth was 91.3% which is higher than those women who did not ever give live birth, which was 67%. The possible explanation for this might be due to the reason that women who had ever given live birth want to space or limit their birth because they are with better experiences and awareness about family planning methods.

In our finding few numbers of unmarried or divorced women were using contraceptives whereas 49.4% of the married ones were using contraceptives. This finding came to be higher than the finding of mini EDHS of Ethiopia in which the contraceptive prevalence of the country among married women was 42% and in SNNP 39% of married women were current users of FP methods in 2014 (13). The possible explanation for this might be that married women get information on FP methods through free discussions made with their friends, neighbors, partners and their readiness to visit health facilities. Also the married women are with high incidences of sexual activities compared to unmarried women or divorced women. The difference with the finding of the EDHS report might be due to difference in reference population.

Our study found that among HIV positive women only 31.2% were current users of FP methods which is higher than the finding of studies done in Kenya in which 26% of HIV positive women

were using contraceptives, also higher than the finding of studies done in Malawi, 19% (29). The unmet need for FP among HIV positive women was 68.2% which is lower than the findings obtained from studies done in Uganda, 75%, but higher than studies conducted in north east Ethiopia, 62% (20,23). These differences might be due to the fact that differences in socio cultural and health service related factors. Our finding showed that the unmet need for FP among HIV negative women was 64.4% which is high compared to studies conducted in Uganda (34%) and north east Ethiopia (53%) (20,23). This difference might be due to the fact that the difference in health service related factors particularly counseling and provision of FP service being low in the study area.

Our finding showed that injectables were used by 46% of contraceptive users which is consistent with studies done in Ethiopia, South Africa and Rwanda (19). This idea was also supplemented by health service providers and managers during in depth interview that most of the VCT clients prefer to use short term FP methods. This might be due to the fact that most women prefer the short term FP methods because they think the long term methods are with more side effects than the short term methods. In this study 84% of the respondents supported the presence of FP services at VCT settings but only 12.5% of the clients were counseled for FP methods at VCT settings which is much lower than a study done in Tanzania in which 67.3% were counseled (30). This might be due to the fact that focus to integrate both services was being lower and provision of the two services being separate.

In our finding women with family monthly income between 500 ETB and 1500 ETB were two times more likely to have demand for FP than those with family monthly income less than 500 ETB. This finding is consistent with findings obtained from studies conducted in Rwanda in which women from the wealthiest households and women who were married to craftsmen or men with mid-level salaries were more likely than women from poorer households to have a demand for family planning (37). The possible explanation for this might be that women with higher family income strive to work hard so that they try to increase their house hold income by limiting the number of children to be born. In our study widowed women were less likely to have demand for FP than the married ones. This might be due to the fact that they consider with low risk to be pregnant and with low family support. In our finding women who had ever given live

birth were three times more likely to have demand for FP than those who did not give ever live birth. The possible explanation for this might be that mothers who gave birth want to space or limit child bearing because of their child desire satisfaction or fear the probability of unwanted pregnancy happening whereas those who did not give live birth mostly have the desire to have a child.

Strength and limitation of the study

Strength of the study: the study is facility based study which used primary data for VCT clients for quantitative part of the study and this was supplemented by the qualitative part of the study by interviewing the service providers and managers of the health facilities.

Limitation of the study: There is no way one can verify that the responses were not with social desirability bias since some women particularly the unmarried ones may not report the use of some of the FP methods like condom because of perceived fear not to be considered with multi partner sexual practices.

7. Conclusions and Recommendations

Conclusions

This study revealed the demand for family planning and how much of this demand was met by the respondents. In this finding majority of women VCT clients had demand for FP. Marital status, income level and live birth were found to be important predictors for demand for family planning. Even though majority of the respondents needed the FP service to be provided at VCT settings, very few of them got the service through intra facility referral. Although most of service providers and health facility managers supported the integration of FP and VCT services, they were not ready to provide the services simultaneously.

Recommendations

Therefore based on the study findings for further improvement to utilize FP services it needs to consider:

To zonal health department and woreda health office

- Woreda health offices and zonal health departments should supervise the provision of FP services along with VCT services and need to monitor and evaluate the continuous provision of the services.
- Should establish youth centers at each health facilities so that the youth and unmarried clients can get necessary information about HIV and reproductive health as they needed.

To health facilities

- All health workers who are providing the services in the health facilities need to put more effort to provide FP services for women with demand for FP methods but with unmet need for the methods through integrating with VCT services.
- Managers of the health facilities should make ready the FP services provision and need continuously follow the provision of the services at VCT settings.

To nongovernmental organizations working on family health

- Technically supporting in the availability of youth friendly services at each health facilities so that integrated HIV and FP services can be provided particularly to young unmarried clients.

- Continuously conducting integrated supportive supervision on HIV and FP services at health facility level

To researchers

- Any interested bodies can do further studies to know the extent of integration of HIV services with FP services starting from policy setting level up to implementing health facilities.

References

1. Meda L. Assessing factors influencing university students to uptake VCT of HIV/AIDS. *Journal of AIDS and HIV Research*. 2013 June; 5(6).
2. Korra A., Bejiga M., Tesfaye S.,. Socio demographic profile and prevalence of HIV infection among VCT clients in Addis Ababa. *Ethiop. J. Health*. 2005; 19(2).
3. Julie A., Denison, George P. Schmid, E. Kennedy and Michael D. Sweat. HIV Voluntary Counselling and Testing and Behavioral Risk Reduction in Developing Countries: A Meta-analysis, 1990-2005. *AIDS Behav*. 2008; 12: p. 363-373.
4. Misganaw A, Melkamu Y. Linkage between VCT and reproductive health services(FP, ANC and delivery) in two public facilities of rural Ethiopia. *Ethiop.J.Health Dev*. 2008; 22(2): p. 158-166.
5. United Nations, Department of Economic and Social Affairs, Population Division. *World Contraceptive Use (POP/DB/CP/Rev2012)*. ; 2012.
6. UNFPA, PATH. Meeting the need, strengthening family planning programs. ; 2006.
7. Pathfinder International. *Integrating SRH and HIV/AIDS Services: Pathfinder International's Experience Synergizing Health Initiatives*; 2005.
8. Rose W., Erika M. Integrating Family Planning and Voluntary Counseling and Testing Services in Ghana. *A Rapid Programmatic Assessment*, Family Health International. ; 2004.
9. USAID. *Rapid Assessment on Policy and Operational Barriers to The Integration of FP/RH/HIV Services in Kenya*. ; 2009.
10. USAID. *Integration of HIV and Family Planning Health Services in Sub-Saharan Africa: A Review of the Literature, Current Recommendations, and Evidence from the Service Provision Assessment Health Facility Surveys Maryland, USA: ICF International Calverton*; 2012.
11. Federal Democratic Republic of Ethiopia Ministry of Health. *National Guideline for Family Planning Services in Ethiopia*; 2011.
12. UNFPA. *A Decade of Change in Contraceptive Use in Ethiopia: In Depth Analysis of the EDHS 2000-2011*. Addis Ababa;; December 2012.
13. CSA, MOH. *Ethiopia Mini Demographic Health Survey Addis Ababa*; July 2014.

14. Federal Democratic Republic of Ethiopia Ministry of Health. Health Sector Development Program IV 2010/11 – 2014/15 FINAL DRAFT. ; October 2010.
15. Karin R., Marissa Y., Jame S. , Er I., Sara S. Supporting the Integration of Family Planning and HIV Services, Policy Brief. Population Reference Bureau; 2009.
16. Strachen M., Agarwal K. Analysis of Family Planning Content in HIV/AIDS, VCT, and PMTCT Policies in 16 Countries. ; January 2004.
17. (IAWG [Internet]. Interagency Working Group for SRH and HIV Linkages. Top –. frequently asked questions. IAWG. Available from: [http://www.srhivlinkages.org/uploads/docs/articles/top- 10 questions_2010_en.pdf](http://www.srhivlinkages.org/uploads/docs/articles/top-10-questions_2010_en.pdf)). [Online].; 2010 [cited 2014 December 17].
18. Egzeabher, S.G., Bishaw, M.A., Tegegne, T.K. and Boneya, D.J. Modern Family Planning Utilization and Associated Factors among HIV Positive Reproductive Age Women in Debre Markos Referral Hospital North West Ethiopia, 2014 G.C. Open Journal of Epidemiology. 2015; 5(1): p. 32-40.
19. Family Health International, USAID. Study of Family Planning and HIV Integrated Services in Five Countries Final Report. ; 2010.
20. Jhangri G., Heys J., Alibhai A., Rubaale T., Kipp W. Unmet need for effective family planning in HIV-infected individuals: results from a survey in rural Uganda. J Fam Plann Reprod Health Care. 2012; 38: p. 23-29.
21. PEPFAR. Ethiopia operational plan report. ; 2011.
22. Central Statistical Agency, ICF International. Ethiopia Demographic and Health Survey 2011 Addis Ababa, Ethiopia, Calverton, Maryland, USA; 2012.
23. Engender Health Ethiopia. Demand for family planning among women VCT clients in Northeast Ethiopia : The Need for Integration, International conference on Family Planning: Research and Best Practices. In ; November 2009; Kampala , Uganda.
24. Dawuro zone health department. Dawuro zone health sector annual performance report of EFY 2006. Tarcha;; 2014.
25. Kiersten B., Priscilla A., Shea O., Stan B. Fertility preferences and the need for contraception among women living with HIV: the basis for a joint action agenda. AIDS. 2009; 23(suppl 1): p. S7-S17.
26. Johriaan B. Expanding Access to HIV Counselling and Testing at Schools – The Manguzi Experience. The South African Journal of HIV Medicine; 2011.

27. Ann D., Stacey H., Athena P., Naomi R., Denise J. Integrating family planning and prevention of mother-to-child HIV transmission in resource-limited settings. *Lancet*. 2005;(366): p. 261-63.
28. USAID. Study of the Integration of Family Planning and VCT/PMTCT/ART Programs in Uganda. ; December 2005.
29. Fredrick M., Gertrude N., Tom L., Joseph K.i, Joseph K., Joseph S., Absalom S., et al. Use of HIV-Related Services and Modern Contraception among Women of Reproductive Age, Rakai Uganda. *African Journal of Reproductive Health*. 2010 December; 14(4): p. 91-102.
30. Bayoum A., Beati M., Florence T., Zubeda N. Assessing the need and capacity for integration of Family Planning and HIV counseling and testing in Tanzania. *Pan African Medical Journal*. 2012; 13(Supp 1)(6).
31. Duff G., Heather B., Metiku W., Aklilu K., Sabrina K. Integrating family planning into Ethiopian voluntary testing and counselling programmes. *Bull World Health Organ*. 2009; 87: p. 866–870.
32. Charlie G. Women’s Education and Modern Contraceptive Use in Ethiopia. *International Journal of Education*. 2011; 3(1).
33. M.S. Kulkarni. Exposure to Mass Media and its Impact on the Use of Family Planning Methods by Women in Goa. *Health and Population -Perspectives and Issues*. 2003; 26(2): p. 87-93.
34. Family Health International. Integrating Family Planning and Voluntary Counseling and Testing Services in Ghana: A Rapid Programmatic Assessment. ; October 2004.
35. Julius A. Accessibility of Rural Dwellers to Health Care Facilities in Rural Nigeria: The Owo Egon Experience. *Pakistan Journal of Social Sciences*. 2007; 4(1).
36. Ali A. and Okud A. Factors affecting unmet need for family planning in Eastern Sudan. *BMC Public Health*. 2013; 13(102).
37. Dieudonné M., Annelet B., Pieter H. Demand and Unmet Need for Means of Family Limitation in Rwanda. *International Perspectives on Sexual and Reproductive Health*. 2009 Sep.; 35(3): p. 122-130.
38. Takele A., Degu G., Yitayal M. Demand for long acting and permanent methods of contraceptives and factors for non-use among married women of Goba Town, Bale Zone, South East Ethiopia. *Reproductive Health*. 2012; 9(26).

Annex 1. English Version Questionnaires

JIMMA UNIVERSITY, COLLEGE OF HEALTH SCIENCES DEPARTMENT OF EPIDEMIOLOGY

Structured questionnaire on family planning information, demand for family planning and fertility desire among women VCT clients attending public health facilities in Dawuro zone, 2015

Identification			
No.	Questions	Response	Code
001	Questionnaire identification number	/-----/-----/	
002	Region	SNNPR	
003	Zone	Dawuro	
004	Name of health facility providing VCT service	_____	
005	Code number		
006	Test result		
007	Name of the interviewer		
008	Date of interview	---- / ---- / ---- d m y	

Checked by investigator: signature _____ Date _____

Verbal consent form before conducting interview

Greetings

Introduction:

My name is-----

I am post graduate student from Jimma University and currently working as a data collector on demand for family planning among women VCT clients in Dawuro zone public health facilities. The objective of this study is to investigate need and choice of family planning by the clients. Your active participation is very important for our study. The questionnaire may take 20 to 30 minutes. To keep confidentiality of your information, your name will not be registered in this questionnaire. Your responses will be used only

for the objective of this study and will not be disclosed to others and will not be used for other purposes. You have full right to withdraw from the interview and not to respond questions you do not want to respond.

Are you voluntary to participate? 1. Yes 2.No

If the answer is yes thanks and conduct the interview.

If the answer is no thanks, proceed to the next eligible client.

Thank you for your cooperation.

PART I: Socio Demographic Variables

S .no	Question	Responses
101	How old are you?	_____years
102	In what year were you born? Compare and correct 101 and/or 102 if inconsistent	_____year
103	What is your religion?	1.Orthodox 2. Protestant 3. Muslim 4. Catholic 5. Others (Specify) _____
104	What is your ethnic group?	1.Dawuro 2.Amhara 3.Wolayita 4.Konta 5. Others(Specify) _____
105	Marital status	1.Married 2.Unmarried 3.Widowed 4.Divorced
106	Can you read and write e.g letters and news papers?	1.Yes 2.No
107	If you attended formal schooling what is the highest grade completed?	_____
108	Monthly house hold income in ETB?	_____
109	Respondents place of residence	1.Rural 2.Urban
110	What is your current occupation?	1.unemployed 2.student 3. government employee

		4.merchant 5.farmer 6.daily labourer 7.house wife 8. others(specify)_____
111	Is there radio in your house hold?	1.Yes 2.No
112	Is there television in your house hold?	1.Yes 2.No

Part II: The following questions are on family planning demand, counseling, choice and use

201	Do you ever heard of any family planning methods?	1.Yes 2. No→ Q204																														
202	If yes to Q201 what is your source of information?	1.Mass media 2.Public health sector 3.Private health sector 4.Spouse 5.Friends 6.Relatives																														
203	Which family planning methods do you know? Tick all mentioned. (Please don't read out the list)	<table border="0"> <thead> <tr> <th></th> <th>1.Yes</th> <th>2.NO</th> </tr> </thead> <tbody> <tr> <td>1.Pill</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>2.Injectable</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>3.Implant</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>4.IUD</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>5.Condom</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>6.Vasectomy/Tubaligation</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>7.Breast feeding</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>8.Withdrawal</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>9.Rhythm method</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		1.Yes	2.NO	1.Pill	<input type="checkbox"/>	<input type="checkbox"/>	2.Injectable	<input type="checkbox"/>	<input type="checkbox"/>	3.Implant	<input type="checkbox"/>	<input type="checkbox"/>	4.IUD	<input type="checkbox"/>	<input type="checkbox"/>	5.Condom	<input type="checkbox"/>	<input type="checkbox"/>	6.Vasectomy/Tubaligation	<input type="checkbox"/>	<input type="checkbox"/>	7.Breast feeding	<input type="checkbox"/>	<input type="checkbox"/>	8.Withdrawal	<input type="checkbox"/>	<input type="checkbox"/>	9.Rhythm method	<input type="checkbox"/>	<input type="checkbox"/>
	1.Yes	2.NO																														
1.Pill	<input type="checkbox"/>	<input type="checkbox"/>																														
2.Injectable	<input type="checkbox"/>	<input type="checkbox"/>																														
3.Implant	<input type="checkbox"/>	<input type="checkbox"/>																														
4.IUD	<input type="checkbox"/>	<input type="checkbox"/>																														
5.Condom	<input type="checkbox"/>	<input type="checkbox"/>																														
6.Vasectomy/Tubaligation	<input type="checkbox"/>	<input type="checkbox"/>																														
7.Breast feeding	<input type="checkbox"/>	<input type="checkbox"/>																														
8.Withdrawal	<input type="checkbox"/>	<input type="checkbox"/>																														
9.Rhythm method	<input type="checkbox"/>	<input type="checkbox"/>																														

204	Have you or your partner ever used any family planning method?	1.Yes 2.No→Q206
205	If the response to Q204 is yes which FP methods have you or your partner ever used?	1.Pill 2.Injectable 3.Implant 4.IUD 5.Condom 6.Vasectomy/Tubaligation 7.Breast feeding 8.Withdrawal 9.Rhythm method
206	Are you or your partner using any family planning method currently?	1.Yes 2.No→ Q208
207	If the response for Q206 is yes which family planning are you or your partner using?	1.Pill 2.Injectable 3.Implant 4.IUD 5.Condom 6.Vasectomy/Tubaligation 7.Breast feeding 8.Withdrawal 9.Rhythm method
208	Would you like to use any family planning method in the future?	1.Yes 2.No→ Q210
209	If the response for Q208 is yes which method do you intend to use?	1.Pill 2.Injectable 3.Implant 4.IUD 5.Condom 6.Vasectomy/Tubaligation

		7.Breast feeding 8.Withdrawal 9.Rhythm method
210	If no why don't you want to use family planning methods?	1. Fear of side effects due to drugs 2.Intention to have a child 3. Husbands/partners influence 4. Abstained from sex 5.Other (specify)_____
211	Do you have a demand to use any family planning method currently?	1.Yes 2.No
212	Do you support the presence of FP service at the VCT setting or offering the service for the clients at FP clinic through linkage?	1.Yes 2.No
213	Have you discussed about family planning methods during VCT services?	1.Yes 2.No
214	If the response is yes which methods have you been counseled?	1.Pill 2.Injectable 3.Implant 4.IUD 5.Condom 6.Vasectomy/Tubaligation 7.Breast feeding 8.Withdrawal 9.Rhythm method
215	If the response for Q213 is yes when was the counseling given?	1.Pre test 2.Post test 3.During both times
216	Have you been given family planning service at health facility?	1.Yes 2.No

217	If yes where do you received family planning service?	1.at the site of VCT service 2.referred to FP clinic in the same facility 3. Other(specify)_____
218	Do you believe that HIV positive women shouldn't have children?	1.Yes 2.No
219	Does your male partner/ husband support you in using any method of family planning	1.Yes 2.No 3.I don't know

Part III: The following questions are on child desire

301	Now I would like to ask about all live births you have had during your life. Have you ever given live birth?	1.Yes 2.No
302	If yes to Q301 how many live births do you have in your life?	_____ Live births
303	How many alive children do you have now?	Number of alive children_____
304	If the response for Q301 is no what was the reason for not having live birth?	1.I did not give birth at all 2.I do not have any live birth
305	Would you like to have children in the future?	1.Yes 2.No 3.I do not know
306	If the answer for Q305 is yes when do you prefer to have a child?	___months/____years
307	If the answer for Q305 is yes, how many (more) children would you like to have in the future?	Number of children desired_____

308	Would your male partner/husband like to have children in the future?	1.Yes 2.No 3.I do not know
-----	--	----------------------------------

Part IV: The following questions are on voluntary counseling testing

401	What was your first source of information about the VCT service?	1.Health worker/facility 2.Mass media 3.Friends 4.Neighbors 5. Other(specify)_____
402	With whom did you first come to this center?	1.My self alone 2.With husband or Partner 3.With my friends 4.With Parents/relatives
403	Has your husband/partner attended HIV counseling with you since your diagnosis?	1.Yes 2.No
404	If no why didn't he attend?	1.Stigma/Disclosure Concerns 2.Living Elsewhere 3.Too Busy 4. Denial 5.Other (Specify)_____
405	Did your partner tested?	1.Yes 2.No
406	Do you know the status of your partner?	1.Yes 2.No

407	Why did you have VCT?	1.To know my HIV status 2.To have PMTCT 3.In time of illness 4.Pre-marriage 5.To go abroad 6.In doubt 7.Other(Specify)
408	Why do you prefer this health institution?	1.Good care 2.Attractive environment 3.Good technical competence 4.Treat with respect and dignity- 5.Confidential 6.Near to home 7.Other(specify) -----
409	What is the distance of the health center/hospital you are attending currently from your home (or how long does it take?)	1.less than or equal to 5 km 2. greater than 5 km

Thank you!

Annex 2. In Depth Interview Guideline for Service Providers

Introduction

Health facility _____

Profession _____

I want to thank you for taking the time to meet with me today. I am from Jimma university department of General public health. My name is _____ and I am a researcher. The aim of this study is to assess the demand of family planning among women voluntary counseling and testing clients. The study is also with the aim to improve the provision of family planning information and services to the VCT clients. Today, the Purpose of my visit is to discuss with you issues of family planning and HIV/ AIDS particularly VCT. This will enable program planners and policymakers to find suitable ways of how best to improve the delivery of FP services in Dawuro zone in VCT programs.

The interview should take less than an hour. I will be taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

1. Please could you tell me about yourself? For how long have you worked as a VCT counselor and could you briefly describe how the VCT and FP services are conducted in your health facility?
2. Please describe about the family planning need of the VCT clients you have. To what extent their need is addressed in VCT services? Would you explain about your rendering FP counseling and services to your VCT clients? What type of family planning services and to which group(s) of clients is the services are provided? If not, why not?
3. Please describe the possibility of offering FP services to the clients and when does it be preferable (Pre-test, Post-test, Follow up)? If not possible, why not?
4. Who shall give the service? (Counselor or somebody else)
5. Can you tell me the advantages and disadvantages of offering FP services to VCT clients?
6. What could be the potential opportunities and obstacles in linking the two services?
7. What do you advise about the sexual activity of a woman tested positive?
8. Are there clients asking you for FP methods? If so or not, what could be the reason?
9. What FP methods do you recommend to HIV positive women?

Thank you for your time.

Annex 3. In Depth Interview Guideline for Health Service Managers

Health facility _____

Position _____

Profession _____

Introduction

I want to thank you for taking the time to meet with me today. I am from Jimma university department of General public health. My name is _____ and I am a researcher. The aim of this study is to assess the demand of family planning among women voluntary counseling and testing clients. The study is also with the aim to improve the provision of family planning information and services to the VCT clients. Today, the Purpose of my visit is to discuss with you issues of family planning and HIV/ AIDS particularly VCT. This will enable program planners and policymakers to find suitable ways of how best to improve the delivery of FP services in Dawuro zone in VCT programs.

The interview should take less than an hour. I will be taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

1. Who are your major clients to your HIV/AIDS (VCT) programs? What is the extent of unmet reproductive health needs of your clients?
2. What type of reproductive health services are provided in your HIV/AIDS (VCT) programs?
3. Please describe about the family planning need of the VCT clients you have. To what extent their need is addressed in VCT services? What type of family planning services and to which group(s) of clients is the services are provided?
4. Do you think that HIV positive client need FP methods? If so, which FP methods can be given to HIV positive women? If yes, what type of service and how? If not, why not?
5. Do you feel that it is possible to offer FP services to the clients at VCT clinics? If yes, How? What elements? , when does it be preferable? (Pre-test, Post-test, Follow up) If no, why not?
6. Who shall give the service? (Counselor or somebody else)
7. To what extent family planning services can be integrated in to VCT centers?
8. Can you tell me the advantages and disadvantages of offering FP services to VCT clients? What could be the potential opportunities and obstacles in linking (Integrating) the two services? What has to be done to integrate the two services?
9. How far do your organizational policy support integration of family planning and VCT services? If your organization supports it, to what extent it is practiced?

Thank you for your time.

Annex 4. Dawurothuwa Version Questionnaire

DAWUROTSUWAA BIRSHETSAA

JIMMA UNIVERSITIYAA DERETHETHA PAT'ATEETAA SCINISEE KOLOJIYAA
IPIDEEMOLOJIYAA DIPAARTMENTIYAA

Mac'c'aa asa golee asa halichuwaa kosha ennotethaan haniya ehivia maramara demanawu yowantu gidoopee kawuwaa faxatethaa karaani , Dawuro zooniyan, Dugeha Wulohaa Top'p'iya Esuppuniya 2007 M.L.

OSHAWU MAYO WARAK'ATAA

Onatetaa shakii errisiyawaa			
Payd.	Oshatuwa	Zaruwaa	kodiyaa
001	Oshatuwa onatetaa shakii errisiyawaa	/-----/-----/	
002	Kililii	DTAK	
003	Zonii	Dawuro	
004	Pat'atetaa ketsa suntsay	_____	
005	Koddiyaa paydu		
006	Marimaraa poolu		
007	Ochchowa suntsay		
008	Osha galaasay	----- / ----- / ----- K' A L	

Oshawu enoyaa waraqathaa birshetsa

Ha ooshaa eenoya warak'atayi mac'c'aa asatusi pilk'etha k'offa odanawune mac'c'aa assati ha pilkethani walakethanwu gigeeda.

Lo>oo aqqedithee/Feeshshedithee. Ta sunthayi-----

Tanni Jimmaa universityaani la>antho digriya tamare gidayida Dawuro zooniyan mac'c'aa asaa golee asa halichuwa kosha ehaivia maramaraw yiwantu gidoopee pilkethanni osha

shishay. Ha pilqethaw hup'ee qofay mac'c'aa asatu nana hasi yelanawu de>iyaa koshay aya malentho eranawune, untu koyo madaa haqapeene woti demmeenonito erettee. Ha oshayine oshappe betiyaa errayi ayeetu yeletetara gayitidi de7iyaa go7anne qohiyabaa bolli erraa asanawune methotha bilanawu made. Hintee ha pilqii xeletanni walaketussayi nu ossuwassi daroo made. Hintee nussi emiya zaruwaa ha pilqethappe harabassi go>eethoko. Hintee nussi odiyabayi hara assasi erethenadani entee sunthayi xafethenaa. Ha pilqethaanii walakethenawwu exanawunee oshaa zarenani exanawu mule mathayi de7ee. Ha oshayi latamappe bidii hezuu tammu daqiqaa gakanawu bethanawu dandayee.

Oshanii walakethanawu mayithee?

Enoo gishawu daroo galathethoo.

Fat'aatetsaa xabiya woyikoo hospitale sunthaa-----

Oshaa galassa-----

Ochedawaa suntha-----kushee malathaa-----

Kalii xeledawaa sunthaa-----kushee malathaa-----

Koyiroo bagaa

Payi duwaa	Oshawuwa	Zaruwa
101	Yeleta layithay?	_____ layitha
102	Yeleta wodii?	----- Marotetha layitha. ----- agena
103	Amanoyi ayee?	1.Orttodokisiya 2.Islaama 3.Pent'iiya 4.Kattolikiya 5.Harraay/gujiitee-----
104	Yarayi ayee?	1.Dawurowaa 2.Amaraa 3.Wolayitaa 4.Kontaa 5. Harraay/gujitee-----
105	Geluwaa wogay?	1.geladii 2. gelaa beyikii 3. asinnay hayowa 4. biletowuno
106	Tsaafanwune nababuwa dandayayi?	1.E'ee 2.Dandayike
107	Ne zaru oshaa 106nowu E7ee gidopee apuntha kifilyaa wurusadi?	_____
108	Aginaan ne demiya biray apunee?	_____

109	Ne de'iyaa sa'aay	1.gat'arita 2.katamaa
110	Ha'ii ne osuu aye	1.kiitii bawa 2.tamariya 3.kawuwa osancha 4.zalaencha 5.goshancha 6.galasa osancha 7. soy gidoo mac'c'a asaa
111	Raduu ne soyin de'ii?	1.E'ee 2.bawaa
112	Televizhini ne soyin de'ii?	1.E'ee 2.bawaa

La'entoo bagaa

201	Naana hassi hassi yelanawu madiya ogatuwa eray?	1.E'ee 2.Erike→Osha 204
202	Ne zaru osha paydow 201 e'ee gidopee hak'k'ape sisade?	1.raduwa woyiko televizhiniya 2.kawuwa fatsatetha ketapee 3.gilee fatsatetha ketapee 4.asinaape 5.lagiyaape 6.dabuwapee
203	Nana hassi hassi yelisiyaa ogetuwapee hak'k'awanta eray?	1.donan mitetiyawa 2. hashiyan marpiyan c'diyawa

		<p>3.hassayan mogetiyawa</p> <p>4.mac’c’ateata garsan yegetiyawa</p> <p>5.koondomiya</p> <p>6.mac’c’a asa woyiko atuma asa yara ayfiya ogiya k’antsiyawa</p> <p>7.t’anta t’antiyawa</p> <p>8.asuwa gaketa wode atuma asay bare zereta karen gusiyaa</p> <p>9.pilay yiya wodiya paydi gaketusa</p>
204	Neni woyiko ne asinaay nana hasi yelanawu go’iiyawantupe go’eei erite?	<p>1.E’ee</p> <p>2.Go’eei eroko →Osha 206</p>
205	Zaru osha 204nowu e’ee gidoppe hak’k’awanta go7eta eray?	<p>1.donan mitetiyawa</p> <p>2. hashiyan marpiyan c’diyawa</p> <p>3.hashiyan mogetiyawa</p> <p>4. mac’c’ateata garsan yegetiyawa</p> <p>5.Kondomiya</p> <p>6.mac’c’a asa woyiko atuma asa yara ayfiya ogiya k’antsiyawa</p> <p>7.t’anta t’antiyawa</p> <p>8.asuwa gaketa wode atuma asay bare zereta karen</p>

		gusiyaa 9.pilay yiya wodiya paydi gaketusa
206	Ha'i neni woyiko ne asinaay nana hassi hassi yelanawu go'iiya t'aliya go7etitee?	1.E'ee 2.Go'eti eroko→Osha 208
207	Zaru osha 206nowu e'ee gidoppe hak'k'awanta go7eta eray?	1.donan mitetiyawa 2. hashiyan marpiyan c'diyawa 3.hassayan mogetiyawa 4. mac'c'ateata garsan yegetiyawa 5.Kondomiya 6.mac'c'a asa woyiko atuma asa yara ayfiya ogiya k'antsiyawa 7.t'anta t'antiyawa 8.ashuwa gaketa wode atuma asay bare zereta karen gusiyaa 9.pilay yiya wodiya paydi gaketusa
208	Sintawu nana hassi hassi yelanawu go7iiya ogatuwa go'eetanawu koyay?	1.E'ee 2.Go'eti eroko →Osha 210
209	Zaru osha 206nowu e'ee gidoppe hak'k'awantu ogeta sintawu go'eetanawu koyay?	1.donan mitetiyawa 2. hashiyan marpiyan c'diyawa 3.hassayan mogetiyawa

		<p>4. mac'c'ateata garsan yegetiyawa</p> <p>5.kondomiya</p> <p>6.mac'c'a asa woyiko atuma asa yara ayfiya ogiya k'antsiyawa</p> <p>7.t'anta t'antiyawa</p> <p>8.ashuwa gaketa wode atuma asay bare zereta karen gusiyaa</p> <p>9.pilay yiya wodiya paydi gaketusa</p>
210	Ne go'eetenawa gidoppe ayawu nana hassi hassi yelanawu go7eeya ogetuwa go7eetik?	<p>1.D'alii ahanawu dandiya miye k'oha yashawu</p> <p>2.na7aa yelanawu koyiyawowu</p> <p>3. Asinaa woyikoo attuma lagii kopaa madeenawowu</p> <p>4.ashuwa gaketa udenawowu</p> <p>5.haraay_____</p>
211	Neewu nana hassi hassi yelanawu madiya ogyaa kooshshay de'ii?	<p>1.E'ee</p> <p>2.Bawaa</p>
212	Nanaa hassi hassi yelanawu madiyaa ogyaa maak'k'u echayviya marmara sa>anni immetanawu koshshiyawaa k'offa madday?	<p>1.E'ee</p> <p>2.Maddik</p>
213	Enoteta ehivia marimara wode pat'ateta hilanchatuwana nana hassi hassi yeliya ogatuwa hasayeditee?	<p>1.E'ee</p> <p>2.hasay beyiko</p>

214	Osha 211wu zaru e'ee gidopee hak'k'awantu ogetawu mak'k'etadii?	<p>1.donan mitetiyawa</p> <p>2. hashiyan marpiyan c'diyawa</p> <p>3.hassayan mogetiyawa</p> <p>4. mac'c'ateata garsan yegetiyawa</p> <p>5.kondomiya</p> <p>6.mac'c'a asa woyiko atuma asa yara ayfiya ogiya k'antsiyawa</p> <p>7.t'anta t'antiyawa</p> <p>8.ashuwa gaketa wode atuma asay bare zereta karen gusiyaa</p> <p>9.pilay yiya wodiya paydi gaketusa</p>
215	Osha 212wu zaru e'ee gidopee ayidee mak'k'uwa akaddi?	<p>1.marimarape kasiyani</p> <p>2.marimarape kalaa</p> <p>3.la'uwaa wodwka</p>
216	Nana hassi hasi yelaanawu madiyaa madaa pat'eteta golepee demeditee?	<p>1.e'ee</p> <p>2.demaa beyik</p>
217	E'ee gidoppe hak'k'appe madaa demadii?	<p>1.enotetani echaivia marimarane mak'k'uwa demiya sa7an</p> <p>2.he pat'ateta kethani hara sa7aan</p> <p>3.haray_____</p>
218	Echayivi bolani de'iyaa mac'c'a assay na7aa yelanawu	<p>1.e'ee</p> <p>2.koshshenaa</p>

	koshshenee?	
219	Ne assinay woyikko lagii nanaa hassi hassii yelanawuu maadiya ogiyaa dossii?	1.E'ee 2.Doosenaa 3.Taa errik

Hezentoo bagaa

301	Ha'ii ta n eena ochchanawu koyiyawe shempuwana de7iyaa naanatuwa n e yeloojaa. Shempuwaana de'iyaa naanatuwa yelaa erray?	1.E'ee 2.Yelaa errik
302	Zaruu oshaa 301wu e'ee gidoppe appun shempuwana de>iya nana yeladii?	_____ shempuwana de>iya nana yeladii
303	Ha'i appu nanay newu shempuwana de7iyawantu de7inno?	Shempuwana de7iyaa nana paydu_____
304	Newu oshaa 301wu yelaa errik giddoppe gasuu aye?	1.Yeluwaa getetiyawa yelaa erikk 2. Shempuwana de'iyaa nana yelaa erikk
305	Sintawu nana yelanawu koyyayi?	1.e'ee 2. Koyyik 3.ta erikke
306	Osha paydo 305wu zaruu e'ee gidoppe ayide na7aa yelanawu koyyayi?	_____ aginaa _____ layitsa
307	Osha paydo 305wu zaruu e'ee gidoppe siintawu appu naanaa yelanawu koyyayi?	Koyetto nana paydu_____
308	Ne assinay woyiko ne lagii nana sintawu yeletiyawa koyii/	1.E'ee

		2. Koyenaa 3.ta erikke
--	--	---------------------------

Oyidentoo bagaa

401	Ennotetan achayiviyaa mak'k'uwanne mirimara t'eeliyawa marajja koyorruwan oppee sisaddi?	1.p'at'ateta kettaappe woyikko hillanichchappe 2.raduwaa woyikko televizhiniyaappe 3. Laggiyappe 4.shoruwappe 5. Haraa zaruu _____
402	Onnana koyyiroo ha madda demanawu yaaddi?	1.taarreka 2.ta assinana 3.ta lagatiwanna 4.ta abuna atina woyikko dabatuwanna
403	Nee asinay nenana ha hakime keta ha maddawu yedde?	1.E'ee 2.Yii benaa
404	Zaruu yii benaa gidoppe ayawu yii benee?	1.hassiya woyikko shishshena asaa yashshawu 2.Haraa sa'anni de'iyawowu 3. Kitaa bollani de'iyawowu 4.It'eeda 5. Haraa zaruu_____
405	Nee assinay marimarratedde?	1.e'ee 2.marimarrati bena

406	Ne assina marimara pooluwa erray?	1.e'ee 2.errikk
407	Ayyawu mak'k'uwanne marimara maddaa akkayidde de>aay?	1.ta pat'etetaa erranawu 2.echayivi attippe na7aawu ad'd'iyawaa te7aanawu 3. sakkowa gishshawu 4.gelluwappe kassiyen 5.kaarre gadee bannawu 6.yayyo giishshawu 7.harray_____
408	Ayyawu ha pat'ateta ketta dooraddii?	1.lo'oo madday de'iyyawow 2.herray lo'aa giddowow 3.hillanchantu k'arra gidowow 4.assa saaliyawa gishawu 5.misit'iriya nagiya gishshaw 6.ta goliyawu mata gidowow 7.harray_____
409	Ne goolii ha hakimee kethape woyisa hakki(Woyikoo apuun wodiya akii?)	1.Ichcheshu kilometiriyappe garsaa 2. Ichcheshu kilometiriya gidde woyiko daree

Gaalatay!