

REPRODUCTIVE HEALTH SERVICE UTILIZATION  
AND ASSOCIATED FACTORS AMONG FEMALE  
ADOLESCENTS IN KACHABIRRA DISTRICT, SOUTH  
ETHIOPIA: A COMMUNITY BASED CROSS SECTIONAL  
STUDY



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A THESIS SUBMITTED TO JIMMA UNIVERSITY, COLLEGE OF HEALTH  
SCIENCES, DEPARTMENT OF EPIDEMIOLOGY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENT FOR MASTERS DEGREE IN  
EPIDEMIOLOGY

JIMMA UNIVERSITY

JUNE, 2016

**JIMMA UNIVERSITY**

**COLLEGE OF HEALTH SCIENCE**

**DEPARTMENT OF EPIDEMIOLOGY**

**REPRODUCTIVE HEALTH SERVICE UTILIZATION AND ASSOCIATED  
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DISTRICT, SOUTH ETHIOPIA: A COMMUNITY BASED CROSS  
SECTIONAL STUDY**

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## **Abstract**

**Background:** Adolescent girls are at the highest risk of maternal mortality compared to women in their twenties and reproductive health service utilization among adolescent females is lower when compared with other age groups in Ethiopia. But there was no study that assessed the factors associated with female adolescent reproductive health service utilization in the study area.

**Objectives:** The study was aimed to assess the reproductive health service utilization and associated factors among female adolescents of district, 2016.

**Methods:** Community based cross sectional study was conducted from March 12-29/2016 in Kache-birra district, Kambata-Tambaro zone, South Ethiopia. Data were collected from sample of 844 female adolescents in 8 randomly selected kebeles. A pretested structured interview was used to collect the data. Bivariate and multivariate logistic regression analysis was also carried out to assess the association and effect of independent variables on the dependent variable and to control confounding effects of variables respectively. Statistical significance was declared by 95% confidence interval of odds ratio.

**Results:** Out of 844 participants interviewed 812 completely responded making a response rate of 96.2%. The mean age of respondents was 15.47 years. In this study, 383(47.2%, 95% CI: 43.7-50.6%) of the female adolescents utilized the reproductive health services. Female adolescent reproductive health service utilization was significantly associated with, living with both parents (AOR=9.63, 95% CI: 1.237- 74.983), age 15-19 years (AOR=3.295, 95% CI: 1.411- 7.696), excellent attitudes of health providers (AOR=3.816, 95% CI: 1.561- 9.324) and adequate consultation time (AOR=2.450, 95% CI: 1.178- 5.094).

**Conclusions and recommendations:** This study showed a low level of female adolescent reproductive health service utilization. Age, living arrangement, attitude of reproductive health service providers and consultation time in the nearby health facilities were significantly associated with female adolescent reproductive health service utilization. Therefore, the district health office should improve the attitude of service providers by giving training and health facilities should provide the service with enough classes and providers in order to improve the consultation time.

**Key Words:** Female adolescents, reproductive health, service utilization

## **I. Acknowledgement**

First and for most, I give honor to God, the omnipotent for every protection he did to me. I would like to extend my deepest gratitude to my advisors, Dr. Sahilu Assegid and Mr. Muktar Beshir for their unreserved help and constructive advice. Also I would like to extend my deepest gratitude to Mr Niguse Chere for his constructive advice and comments starting from the beginning. Following this, I would like to thank Jimma University, Epidemiology department for providing this chance. Also I would like to acknowledge data collectors, supervisors, participants and parents of participants for their permission of their daughters for interview. At the last but not the least, I would like to extend my gratitude to my friends for their direct or indirect contribution to development of this research study.

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## **List of abbreviations**

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ASRH	Adolescent Sexual and Reproductive Health
ARH	Adolescent Reproductive Health
CSA	Central Statistical Agency
EDHS	Ethiopian Demographic and Health survey
EMDHS	Ethiopian Mini Demographic and Health survey
ETB	Ethiopian Birr
FP	Family Planning
HIV	Human Immune Virus
IEC	Information Education Communication
IFHP	Integrated Family Health Program
IUD	Intrauterine Device
PNC	Postnatal Care
RH	Reproductive Health
SNNPR	South Nation Nationalities and Peoples Region
SPSS	Statistical Package for Social Science
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

# **CHAPTER ONE: INTRODUCTION**

## **1.1. BACKGROUND**

Adolescence is defined as the period between 10 and 19 years of age. It is one of life's fascinating and most complex stages, which involves transition from childhood to adulthood and characterized by significant physical, cognitive, behavioral, physiological, psychological and social changes [1].

During adolescence young people starts to define and clarify their sexual values and, frequently, start to experiment with sexual behaviors. These typical characteristics of youths put them at increased risk of sexually transmitted infections (STIs), including human immune-deficiency virus (HIV), and unwanted pregnancies. Particularly in sub-Saharan Africa including Ethiopia, they are disproportionately affected by HIV accounting for almost two-thirds of the people living with HIV which is also facilitated by its higher prevalence in the region [2].

Adolescent reproductive health (ARH) is becoming ever more important component of global health [3] and is a key intervention to facilitate a healthy transition from adolescence into adulthood [4].

International Conference on Population and Development (ICPD) 1994 identified and recommended that, adolescent, sexual and reproductive health issues will be addressed through the promotion of responsible and healthy reproductive and sexual behavior, including voluntary abstinence and the provision of appropriate services and counseling specifically suitable for that age group and countries were encouraged to ensure that program and attitudes of health-care provider don't restrict youth access to & utilization of the services and information they need [5].

In Ethiopia adolescents comprise of 26.1% of total population and adolescent females are 25.3% of total female population. Any modern contraceptive utilization among adolescents is 9.2% and among currently married adolescents it is 39.6%. The age-specific fertility rate for adolescents is 63 births per 1,000 women of age 15-19 years. Percentage of women age less than 20 years who received antenatal care for the most recent pregnancy from a skilled provider is 45.3% but only 16.1% received full components of ANC and only 19.2% delivered in health facility. The total

fertility rate of the country is 4.1, while for rural women fertility rate is 4.6 which are twice as many children as urban women [6].

## **1.2. PROBLEM STATEMENT**

Even though the adolescents have specific health and development needs, many of them face challenges that hinder their wellbeing including; poverty, a lack of access to health information and services, and unsafe environments [7]. Adolescent females face inter-related barriers that prevent them from accessing facility-based RH services. These include: individual barriers, such as feelings of shame, fear or anxiety about issues related to sexuality and reproduction, lack of awareness about the services available, poor health, or advice-seeking behaviors and the perception that services will not be confidential; socio-cultural barriers, such as social norms which dictate the behavior and sexuality of both young men and women, stigma surrounding sexually active adolescents, cultural barriers which limit the ability of women, girls or certain sub-sets of the population from accessing health services, educational limitations, language differences, the attitudes of health care providers towards adolescents or their unwillingness to attend their RH needs; and structural barriers, such as long distances to health facilities, lack of facilities for clients with disabilities, inconvenient hours of operation, long waiting times, charging fees for services and lack of privacy [1].

As a result adolescents suffer from life threatening health risks related to early marriage, unwanted pregnancies, unsafe abortions, sexually transmitted infections (STIs) including HIV/AIDS and others [2]. And adolescent girls are at the highest risk of maternal mortality with the risk of pregnancy-related death twice as high for girls aged 15-19 and five times higher for girls aged 10-14 compared to women in their twenties. Hence, it is not surprising that despite accounting for only 11% births worldwide, adolescent women carry 23% of overall burden of disease due to pregnancy and childbirth among women of all ages [8]. In sub-Saharan Africa including Ethiopia, they are also disproportionately affected by HIV accounting for almost two-thirds of the people living with HIV which is also facilitated by its higher prevalence in the region [2].

Further, pregnant adolescents are more likely than adults to pursue unsafe abortions; an estimated 3.2 million unsafe abortions occur every year among girls aged 15-19 globally [9, 10].

In Ethiopia, unsafe abortion is a leading cause of maternal death and injury [10] and as different studies showed in Ethiopia, 54% of pregnancies to girls under age 15 are unwanted; girls under age 15 are three times more likely to end their pregnancy in abortion. As a result abortion accounts for nearly 60% of gynecological and almost 30% of all obstetric and gynecological admissions in Ethiopia [11].

However as different studies show that the RH service utilization among adolescent is lower when compared with other age groups in Ethiopia [12, 13]. From unmarried women aged 15-19 in Ethiopia, 37% have an unmet need for contraception and 28% of recent births were unplanned [10]. Study conducted in Hadiya zone in South Ethiopia showed that, the adolescent sexual and reproductive health service utilization was only 26% [14].

Even though adolescents are at increased risk of negative reproductive health outcomes [15], adolescents' reproductive health service utilization is low especially in the Southern Ethiopia in which study district is found [14] and nationally in general [12, 13].

However there were no studies conducted in the Kacha-birra district or Kambata-Tambaro zone to investigate factors associated with adolescent reproductive health service utilization. Therefore the scientific evidence to what determines utilization of female adolescent reproductive health services in the study area was not found, it is the question of interest, to assess magnitude of female adolescent reproductive health service utilization and factors associated with the utilization of reproductive health services by female adolescents of the study area.

## **CHAPTER TWO: LITERATURE REVIEW**

Adolescent reproductive health services are packages of health care given to adolescents and include family planning (FP), sexual information, maternal health care such as ANC,PNC, pregnancy testing, treatment of Sexually Transmitted Infections (STI) , post-abortion care support and counseling for unwanted pregnancies among others [16]. This chapter reviews different literatures regarding determinant factors affecting adolescent reproductive health services utilization. There are many factors that affect the utilization of available sexual and reproductive health services by adolescents [17].

### **2.1. Adolescent reproductive health service utilization**

Study conducted in Jimma town on reproductive health accessibility and utilization by adolescents indicted that out of 1082 adolescents, 41.1%, and 34.7% of them were ever and current users of RH services, respectively. 34% of adolescents ever used health services for Information, Education and Communication (IEC) followed by family planning 17.6%. 5% and 3.1% of them used health services for STI treatment and abortion care, respectively [12]. Study conducted in Gondar town revealed that, out of those adolescents who had sexual intercourse, 79.5% utilized family planning services. Similarly out of all adolescents, 72.2% utilized the VCT service, and out of the sexually experienced, 88.4% utilized the service. More than half 55.6% were females, and 65.3% obtained the service from health centers and 23.61% from schools [18]. Similarly another community based quantitative cross-sectional study conducted in Goba revealed that, the utilization of family planning service among adolescents was 71.40% [19].

Study done in Bahir Dar city Ethiopia, among 818 high school students 32% of adolescents had reported as they utilized youth reproductive health services within the past one year [20]. Other study in Machakel district, northwest Ethiopia, also indicted that 21.5% of the adolescents ever utilized RH services and 18.8% have visited an RH services providing center in the last 6 months [21]. Study conducted in Nepal higher secondary schools showed that, SRH service utilization proportion was lower among female adolescents (4.3%) [22]

### **2.2. Factors associated with adolescent reproductive health service utilization**

Study conducted in four countries in Africa showed that, more females than males reported feeling afraid, embarrassed or shy about obtaining either contraceptive services or STI treatment

[23]. Institution based study conducted in Zimbabwe show that, staying alone was associated with utilization of ASRH services offered at Harare central hospital youth friendly center [24].

Different studies in Ethiopia showed that, the major barriers in utilizing reproductive health services by adolescents are fear of being seen by parents or people whom they know, and embarrassment demand to reproductive health services [12,25]. Institution based cross sectional study conducted in Madawalabu University students showed that, being sexually active, knowing any type of modern contraceptive, discussion on family planning with health profession and making discussion of VCT were found to be determinant factors of reproductive health service utilization. Sexually active respondents utilized reproductive health service six time more than sexually inactive students [26].

Similarly another community based quantitative cross-sectional study conducted in Goba revealed that, discussion about family planning with peer groups/friends and sexual partner and discussion about VCT with peer group/friend and health worker were found to be significantly associated with VCT and family planning service utilization. Adolescents ever discussed with their sexual partners were 4 times more likely to utilize FP service than their counterparts and those adolescents who had discussed with health workers were 4 times more likely to utilize VCT service than their counterparts [19].

Study conducted in Gondar town, Northwest Ethiopia showed that, sex, schooling attendance, educational status, co-residence with both parents, parental communication, discussion of VCT services with peer group and health workers, sexual experience and perception of risk towards HIV/AIDS were found to be significantly associated with VCT service utilization [18].

## **2.2. 1. Socio-demographic and economic factors**

Study conducted in Machakel district in Gojjam zone, showed that, the odd of RH knowledge was higher among 15–19 years adolescents than 10–14 years. Adolescents whose age ranges 15–19 years used RH services 2 times more likely than 10–14 years [21].

Study conducted in Jimma showed that, adolescents within age groups of 18 to19 years were more likely to ever (44%) and currently (37 %) use health services than adolescents of age 15 to

17 years. Adolescents who had interaction with family and peers and had access to pamphlets and posters as source of information for RH services were more likely to be ever user [12].

The study conducted in Gonder also revealed that, participants living with both parents were about 1.5 times more likely to use VCT services. Similarly adolescents who had had parental discussion on VCT services were 10 times more likely to utilize the service as compared to those who had no parental communication. Adolescents with secondary education and above were about 9 times more likely to utilize FP service as compared to those with no formal education. And similarly, maternal education was found to have an association with the utilization of family planning services. The odds of having VCT was about 2 times higher for in school adolescents than out of school ones. Similarly, adolescents with secondary education and above were about 3 times more likely to use VCT as compared to those who have no formal education [18].

Study conducted in Goba town showed that, around 45.80% of respondents have ever communicated about reproductive health issues with their parents. Out of the total participants 58.70% have had sexual partner, and 52.60% have had sexual intercourse. Among those who had sexual partner, the greater number of respondents, 67.80% had one sexual partner. Out of those, who had sexual intercourse, 74.30% had romantic relation with their sexual partners. Among those who had sexual intercourse, 84.80% had sexual intercourse in the past 12 months, and 65.70% had sexual intercourse more than once with the same partner. When the relationship of the respondents to their last sexual partner was examined, the majority of the partners 65.70% stayed in their last sexual relation for more than 6 months. Around 52.9% of adolescents in this study experienced sexual intercourse. In this study, out those who experienced sexual intercourse, 28.60% did not use any modern contraception [19].

Study conducted in Jimma showed that, Poor adolescents bear a disproportionate burden of the reproductive health problems in their age group. There is a strong association between poverty and the health status of adolescents and between poverty and adolescents' use of health services. Adolescents with knowledge of family planning and VCT services were 9 and 3 time more likely to ever use RH services, respectively. Adolescents with knowledge of family planning were 13 times more likely to be current user of RH services [12].

### **2.2.2. Health facility related factors**

A study in Eastern Harerge on health workers' attitude toward sexual and reproductive health services for unmarried youth concluded that some health workers were setting up strict rules and regulations against premarital sex [27].

On study conducted in Bahir Dar, the major reported factors in utilizing reproductive health by youths were inconvenience service hour (31.8%), feel fear to be seen by parents or other adults (28.5%) and too long waiting hours (28.4%). Second category of barriers were consultation hour is too short (25.4%) providers are judgmental and unfriendly (23.6%) feel embracement at seeking or going to RH services (21.6%) [28].

Study conducted in Kenya showed that, Negative provider's attitudes have been identified as a major barrier as it discourages young people from seeking or returning for care [29].

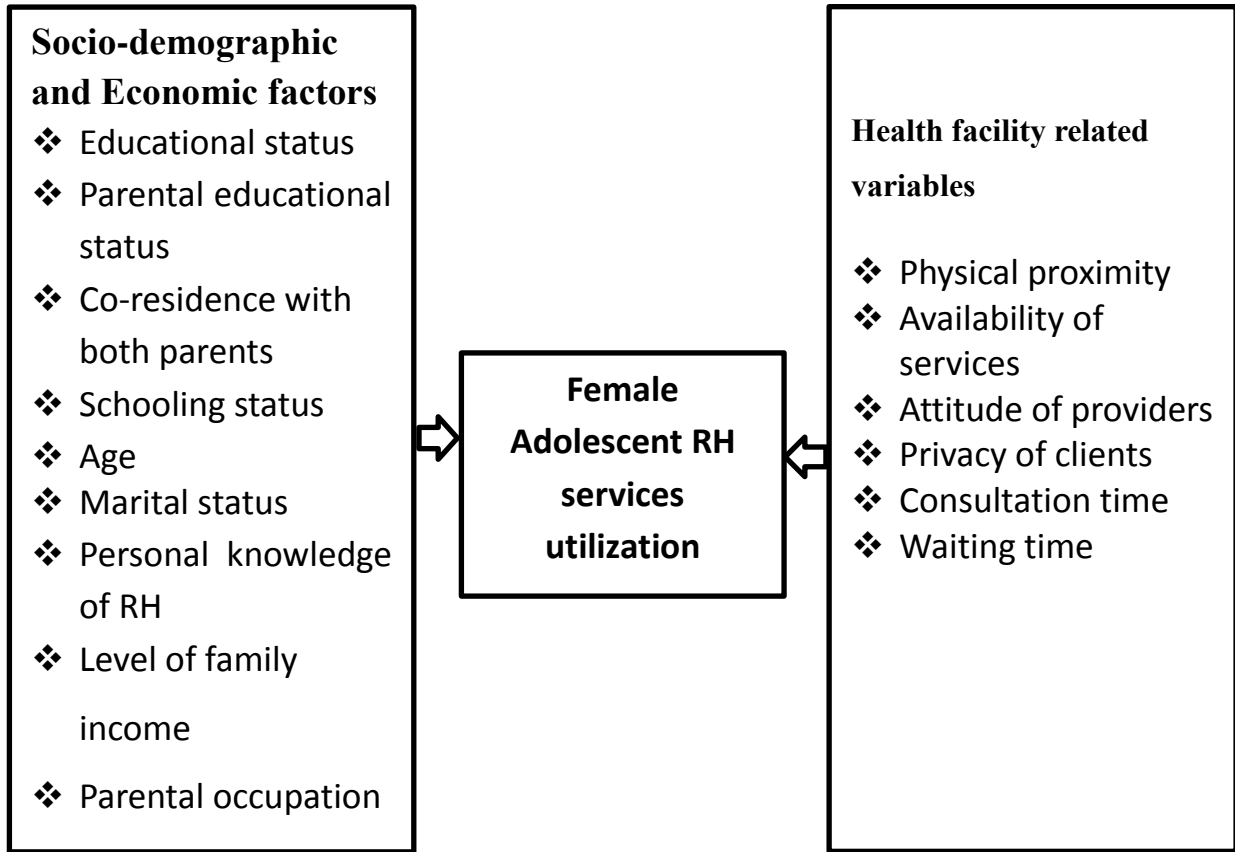
A study conducted in Kenya and Zambia, revealed that reproductive health services are underutilized due to judgmental attitudes of the health workers and lack of competence coupled with lack of knowledge in the YFRHS provision. The attitude has been adversely mentioned to be the major barrier for the youths who seek for the youth friendly health services [30]

Students who were mistreated were 0.47 times less utilizing FP service than those highly welcomed . Similar to FP health care providers attitude towards giving care for students has significant association with VCT service utilization .Students who were moderately welcomed and mistreated by health care providers were both found to be 0.99 less utilized VCT service than students who were warmly welcomed by health care providers [31].



## Conceptual framework

Conceptual framework is developed to show the relationship between dependent and independent variables. It was developed after reviewing different related literatures.



**Figure 1:** Conceptual framework showing factors associated with reproductive health service utilization (self developed after reviewing different related literatures)

### **CHAPTER THREE: SIGNIFICANCE OF THE STUDY**

Because reproductive health service utilization during adolescence is an important way of keeping adolescent females healthy, better understanding of the factors affecting reproductive health service utilization is important. Therefore understanding this will help decision makers to address them and consequently improve reproductive health problems of female adolescents in the study area.

Thus, familiarity of the factors associated with female adolescent reproductive health service utilization in the study area may be employed as a foundation for female adolescent reproductive health service utilization in the country.

This study will be expected to provide scientific evidence indicating factors that affect the utilization of reproductive health service by the female adolescents of the study area specifically and the region and country in general. Health care planners may utilize information generated from the study to improve service delivery and utilization for adolescents in the study area as well as regionally and nationally. It will also contribute as a base line for other researchers and help to identify gaps in service provision.

## **CHAPTER FOUR: OBJECTIVES**

### **4.1. General objective**

To assess the magnitude of reproductive health service utilization and associated factors among female adolescents of Kacha-birra district, Kambata-Tambaro zone, South Ethiopia, 2016

### **4.2. Specific objectives**

- ❖ To assess the magnitude of female adolescent reproductive health service utilization
- ❖ To identify factors associated with female adolescent reproductive health service utilization

## **CHAPTER FIVE: METHODS AND MATERIALS**

### **5.1. Study area and period**

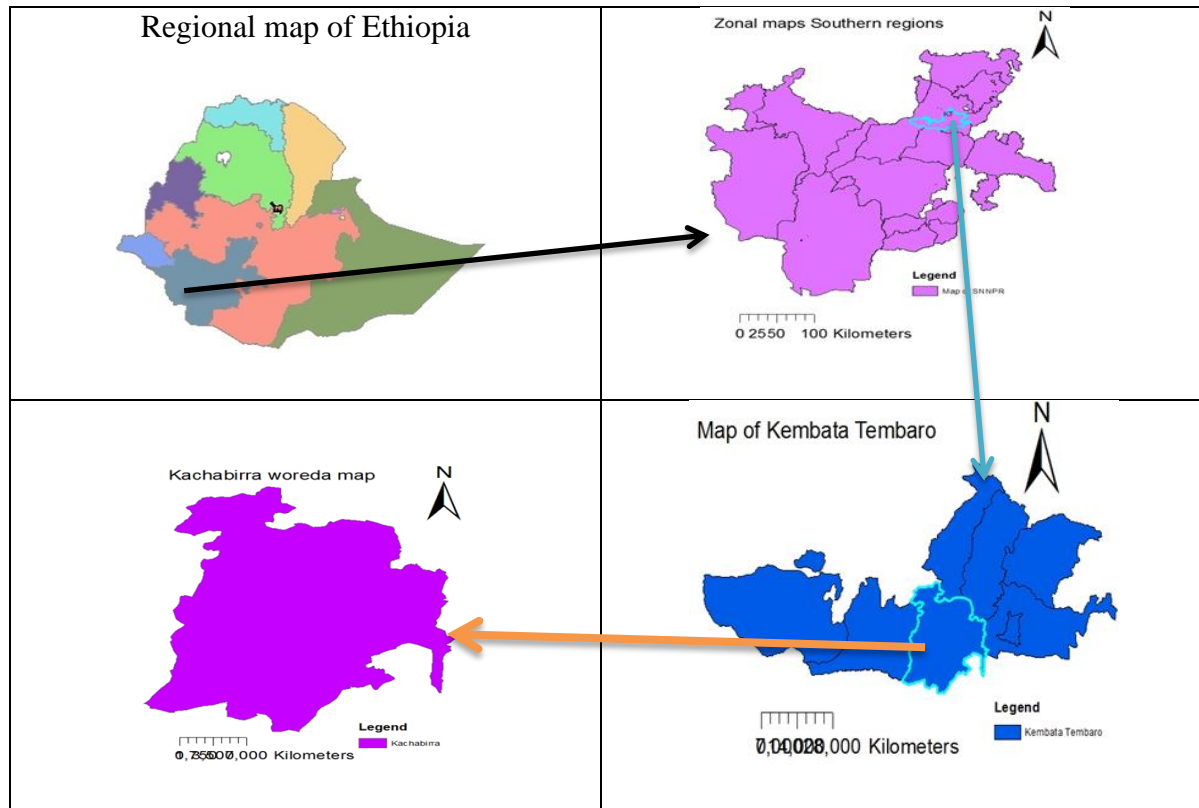
#### **5.1.1. Study area**

The study was conducted in Kacha-birra district, Kambata-Tambaro zone, South Ethiopia. In the study district, there is one primary hospital, five government and one NGO health centers, 5 private clinics, 6 drug stores and 19 health posts. There are different NGOs working in adolescent reproductive health such as IFHP, Ethiopian evangelical Church Mekane-Eyesus central south synod and others.

The district is found 327 Kms away from the capital, Addis Ababa and 144 Kms away from the regional capital, Awassa.

The total population of Kachabirra district is estimated to be 124804 in 2015 and estimated total adolescent population of 32573 (26.1%) and estimated total adolescent female population of 16287 (13.05%). From total population 121950 (97.7%) are residents of rural areas and only 2854 (2.3%) are residents of urban areas and majority population lives in the rural areas. The total population of the district is distributed over 21 different kebeles (20 rural and 1 urban kebeles) [32].

## Map of Study area



**Figure 2:** Map of study area

### 5.1.2. Study period

The study was conducted from March 02-29/2016.

### 5.2. Study design

A community based cross-sectional study design was used.

### 5.3. Population

#### 5.3.1. Source population

All female adolescents (age 10- 19 years) of the district

#### 5.3.2. Study Population

All female adolescents (age 10- 19 years) in the selected kebeles of the district.

### 5.3.3. Sample Population

All randomly selected female adolescents (age10- 19 years) in the selected kebeles of the district

#### 5.2.2.1. Inclusion and exclusion criteria

##### 5.3.2.1.1. Inclusion criteria

All the female adolescents (age10- 19 years) of the selected kebeles of the district, who lived in the area for a minimum of 6 months.

##### 5.3.2.1.2. Exclusion criteria

❖ Those adolescent (age10- 19 years) females who are severely ill.

### 5.4. Sample size determination

#### 5.4.1. Sample size

Sample size was determined by using the sample size determination formula for single population proportion at

Confidence level of 95%

Margin of error d= 5% and

P taken as 50%,

$$n = \frac{(Z_{\alpha/2})^2 P (1-P)}{d^2}$$

$$n = \frac{(1.96)^2 * 0.5(1-0.5)}{(0.05)^2}$$

$$n=384$$

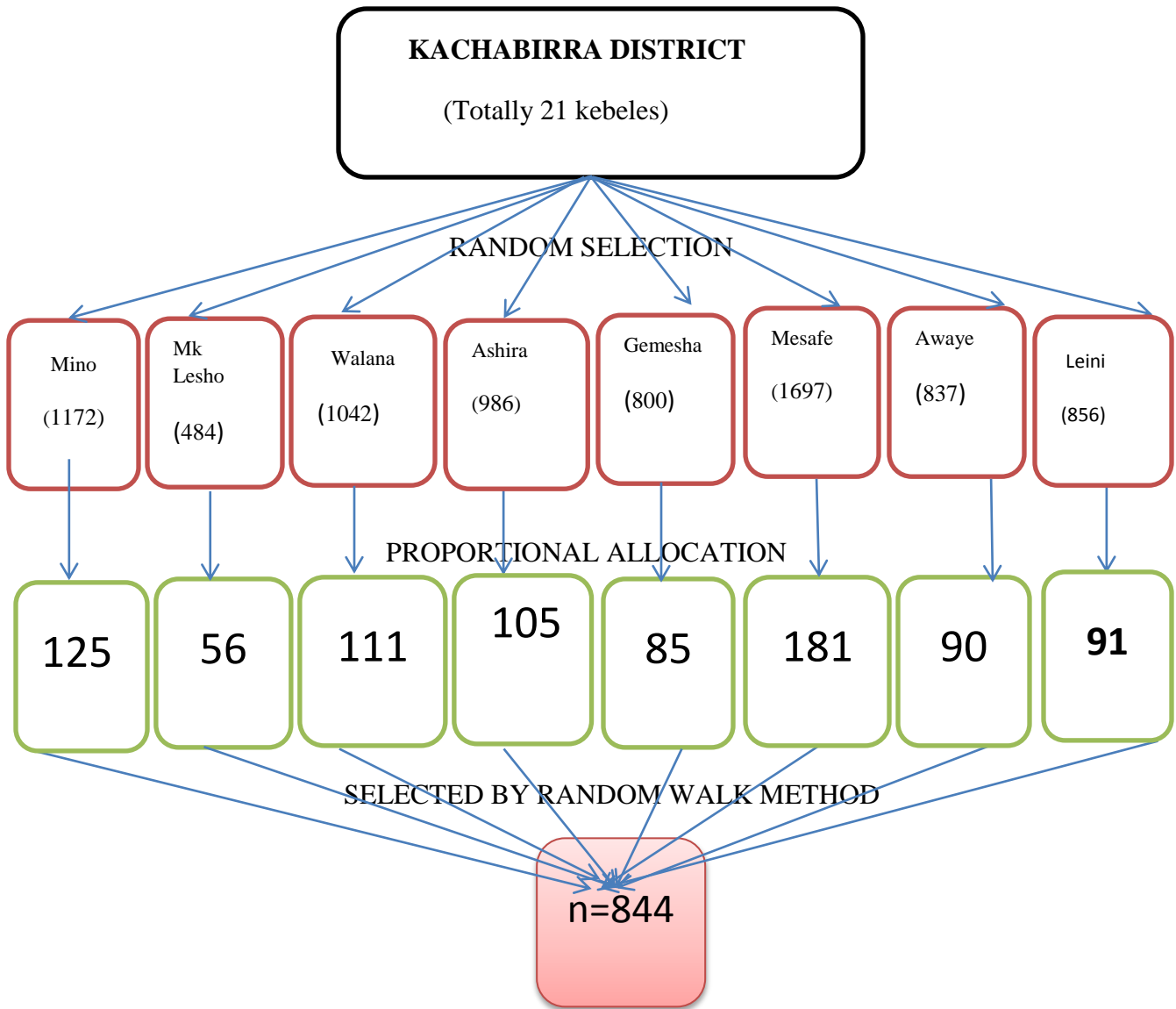
Because multistage sampling method was used, at first stage by identifying clusters (kebeles) and at the second stage by selecting households (female adolescents) the sample of 384 was multiplied by design effect of 2, the sample size became 768. Finally by adding 10 % for non-response rate, the sample size became 844.

#### **5.4.2. Sampling technique**

A multi-stage sampling technique was used. It is preferred technique because it was difficult to manage total female adolescents of the district, who were widely scattered over the whole district.

In the first stage based on WHO guideline [33], from the total of 21 kebeles of the district, 40% (8 kebeles) were identified by using simple random sampling method. To assure representativeness of the data the sample size was be proportionally allocated to 8 selected kebeles, proportionally to their total population.

Then in the second stage from the identified 8 kebeles, total required sample of (844 female adolescents (SSU)) were selected. Random walk method of sampling was used to select households from the selected kebeles. To apply random walk method first in each kebele six starting points were allocated on a map. Then two of these numbers were selected at random by writing them on pieces of paper. Then after selecting two of the numbers on the map data collection was started at both points. The household nearest to the starting point was included first. Then by spinning a pen, the direction in which to continue was decided and a road was followed to identify the next households by using access roads. Then the data collection was continued in this way until the required number of female adolescents in the cluster was reached. In the house holds with more than one female adolescents lottery method was used to select one of them.



**Figure 3:** Schematic representation of the sampling procedure, 2016



## **5.5. Data collection procedures**

### **5.5.1. Instrument**

A structured and pretested questionnaire was used to collect the data. The questionnaire was developed based on study variables and some of them were adapted from different relevant literatures [24, 34]. The questionnaire has four parts. The first part contains questions about socio-demographic variables, the second part contains questions about the utilization of reproductive health services, the third part contains questions about economic variables and the fourth part contains questions about health facility related variables.

### **5.5.2. Personnel**

The data collectors were 7 in number who were female and diploma graduates of nursing. All of them were females and age not more than 25 years. There were also two supervisors who were BSc nurses to follow, check, support and correct the activities of data collectors.

### **5.5.3. Data quality control**

The quality of data was assured through careful design, translation and retranslation, pretest of the questionnaire and proper training of the data collectors and supervisors on the data collection procedures. Questionnaire and consent form were developed in English then translated to Kambatissa language and finally back translated to English by another translator to assure the consistency. Structured interview was used as a technique of data collection. A pre-test was conducted in 5% of the sample population (42 female adolescents) in kebele out of the 8 selected kebeles (Itte kebele), before conducting of the study. Based on the pre- test result, the questionnaire was corrected. Before data collection, training was given for data collectors and supervisors about the aim of the study, data collection technique and the idea of the questionnaire by discussing questions one by one in order to have a common sense on all questions. In order to assure the completeness of questionnaire, the collected data was checked daily by supervisor and investigator, and the necessary feedback was offered to data collectors in the next morning before starting data collection. Each village was visited twice a day (morning and afternoon) in order to reach female adolescents who are in different shifts in school.

## **5.6. Study variables**

### **5.6.1. Dependent variable**

- ❖ Reproductive health service utilization

### **5.6.2. Independent variable**

#### **1. Socio-demographic and economic variables**

- ❖ Educational status
- ❖ Parental educational status
  
- ❖ Living arrangement
  
- ❖ Schooling status
  
- ❖ Age
- ❖ Marital status
  
- ❖ Personal knowledge of ARH
  
- ❖ Personal sexual experience
  
- ❖ Level of family income
- ❖ Parental occupation

#### **1. Health facility related variables**

- ❖ Physical proximity
- ❖ Perceived Availability of medical services
- ❖ Perceived Attitude of providers
- ❖ Perceived Privacy of the patient
- ❖ Perceived Consultation time
- ❖ Perceived Waiting time

## 5.7. Operational definitions

**Adolescent reproductive health services** particularly considered in this study are family planning, condom, VCT, STI treatment, IEC, comprehensive abortion care, maternal services such as ANC, PNC and delivery [35].

**Family income:** Monthly income below 1205 ETB was considered as poor and above 1205 was considered as rich based on World Bank International poverty line 2014 [36].

**Contraceptive service utilization:** is defined as ever utilization of any modern contraceptives.

**Personal Knowledge of RH-** Was measured by asking eight multiple choice and true/false questions. Those who answer above median score were, considered as knowledgeable and below median score were considered as not knowledgeable.

**Physical proximity:** is distance from adolescents' home to RH service center to which is less than 10 km.

**Reproductive health service utilization:** is defined as ever utilization of at least one of the reproductive health services anywhere whether in government or private health institutions. This was measured through the dichotomous response (yes or no). The positive response was further validated with questions on the type of RH services utilized.

**Severely ill:** - those adolescents who can't respond due to illness or difficulty of responding.

**Perceived waiting time:** - is time taken after arrival to RH service center and starting of being served, from adolescent females view point.

## **5.8. Data processing and analysis procedures**

The data gathered through the structured questionnaire was entered using Epidata version 3.1 and exported to SPSS version 20 for analysis. Frequencies mean and percentage were used to describe the data. Multicollinearity was checked by variance inflation factor. Model fitness was checked by using Hosmer-lemeshow goodness-of-fit-test. Binary logistic regression analysis was carried out. Crude association between dependent and independent variables was assessed by bivariate logistic regression and its strength was presented using odds ratios and 95% confidence intervals. Bivariate followed by multivariate logistic regression analysis was also carried out to control confounding effects of variables. Variables with P value less than 0.25 in binary logistic regression were entered into multiple logistic regressions. Based on adjusted OR and 95% CI, variables which are associated with dependent variable were identified.

## **5.9. Ethical consideration**

Before the study begins ethical clearance was obtained from the ethical review committee of Jimma University. Official permission was secured from the district health office. The respondents were informed about the objective and purpose of the study and written consent was obtained from parents and participants. Confidentiality of the information was assured and information was collected secretly.

### **5.10. Dissemination of results**

The findings of this study will be disseminated to different organizations who have helped the study to be carried out including Jimma University, and those who have concern in adolescent health in the region, which includes SNNPR health bureau, Kambata-Tambaro zone health department and Kacha-birra district health office. The findings will be presented in different seminars, meetings and workshops. The result will also be disseminated by publication of the journal.

## CHAPTER SIX: RESULT

Out of 844 participants interviewed 812 completely responded and 32 left the interview without completing the total questions provided, therefore omitted from the analysis. As a result the final response rate became 96.2%.

### 6.1. Socio-demographic and economic characteristics of respondents

The mean age of the participants was 15.47(SD 2.266, min 10 and max 19) years. Kambata constituted 696 (85.7 %) and Hadiya 96 (11.8%) of total ethnic group of the participants. Six hundred forty eight (79.8 %) of the participants were Protestants, 107 (13.2%) were orthodox and 36 (4.4 %) were catholic. Five hundred fifty (67.7 %) of participants were in school and 262(32.3%) were out school. One hundred sixteen (14.3%) of the participants were married and 694 (85.5%) were single. Five hundred ninety six (73.4%) of participants were living with both father and mother, 102(12.6%) living with father only and 40 (4.9%) were living with mother only. Five hundred forty one (66.6%) of participants scored mean and above mean score and 271 (33.4%) scored below mean score from the knowledge questions. Two hundred seven (25.5%) of female adolescents' mothers level of education was no formal education, 417 (51.4%) of female adolescent' mothers' educational levels were primary and 177(21.8%) of female adolescent mothers educational level were secondary and above. One hundred forty four (17.6%) of female adolescents' fathers' were no formal education. Four hundred thirty four (53.4%) of female adolescent' fathers' educational level were primary, 173(21.3%) of female adolescent fathers educational level were secondary and 43(5.3%) of female adolescents' fathers' educational levels were college and above.

Only 112(13.8%) of participants were above and 700 (86.2%) below the poverty line based on World Bank international poverty line 2014. Parental occupation of the participants was 49(6%) formal employment, 668(82.3%) were farmer, and 43(5.3%) and 52(6.4%) were casual laborer and Self-employment respectively (**Table 1**)

**Table 1:** Socio-demographic and economic characteristics of female adolescents in Kacha-birra district, South Ethiopia, March 2016.

Variables	Age group(in years)		Total	
	10-14	15-19	No	%
	No (%)	No (%)		
<b>Education status of participant</b>				
No formal education	33 (4.1)	45(5.5)	78	9.6
grade 1-8	154 (19)	239 (29.4)	393	48.4
Secondary and above	76 (9.5)	265 (32.6)	341	42
<b>Schooling status</b>				
in school	211 (26)	339 (41.7)	550	67.7
out of school	52 (6.4)	210(25.9)	262	32.3
<b>Religion</b>				
Protestant	198 (24.4)	450 (55.4)	648	79.8
Orthodox	38 (4.7)	69 (8.5)	107	13.2
Catholic	16 (1.9)	20 (2.5)	36	4.4
Others	11 (1.4)	10 (1.2)	21	2.6
<b>Ethnicity</b>				
Kambata'	222 (2.7)	474 (58.4)	696	85.7
'Hadiya'	36 (4.4)	60 (7.4)	96	11.8
Others	5 (0.6)	15 (1.8)	20	2.5
<b>Living arrangement, with</b>				
Father	12 (1.5)	28 (3.4)	40	4.9
Mother	37 (4.6)	65 (8)	102	12.6
Both father and mother	206 (25.4)	390 (48)	596	73.4
Others	8 (1)	66 (8.1)	74	9.1
<b>Marital status</b>				
Single	238 (29.3)	456(56.2)	694	85.5
Others	25 (3)	93(11.5)	118	14.5
<b>Mothers educational status</b>				
no formal education	55 (6.8)	152(18.7)	207	25.5
grade1-8	135 (16.6)	282(34.7)	417	51.3
Secondary and above	71 (8.7)	106 (13.1)	177	21.8
College and above	2 (0.2)	9 (1.1)	11	1.4
<b>Fathers educational status</b>				
no formal education	44 (5.4)	99 (12.2)	143	17.6
grade 1-8	128 (15.8)	306 (37.7)	434	53.4
grade 9-12	70 (8.6)	103 (12.7)	173	21.3
college and above	18 (2.2)	25 (3.1)	43	5.3
no father	3 (0.4)	16 (2)	19	2.3
<b>Parent occupation</b>				
formal employment	16 (1.9)	33 (4.1)	49	6.0
causal laborer	13 (1.6)	30 (3.7)	43	5.3
Self-employment/business/ farmer'	24 (3)	28 (3.4)	52	6.4
	210 (25.9)	458 (56.4)	668	82.3
<b>Family income</b>				
income level of 1204 birr or lower	234 (28.8)	466 (57.4)	700	86.2
income level of 1205 and above	29 (3.6)	83 (10.2)	112	13.8

Ethnicity 'Others' include Woleyita, Amhara; living arrangement "others"=include relatives, husband or brother/sisters, Marital status 'Others'=married, separated and divorced



## 6.2. Reproductive health related characteristic

Two hundred fifty three (31.2%) of adolescent females have boyfriends, 27 (3.4%) have two or more sexual partners and 133 (16.4%) have ever had sex (sexually experienced). Eighty eight (10.8%) had sex within the last one year. Eighteen (2.3%) of the female adolescents have had sex with two or more partners and only 89 (11%) used condom or other contraceptive during the sex. Condom was utilized by 34(4.2%) of adolescents, emergency contraceptive was used by 32 (3.9%), pills by 14(1.7%) and other contraceptives by 16(1.8%) of the respondents (**Table 2**).

**Table 2:** Reproductive health related characteristics of female adolescents in Kacha-birra district, South Ethiopia, March 2016.

Variables	Age group(in years)		Total	
	10-14 No (%)	15-19 No (%)	No	Percent
<b>Have boy friends</b>				
yes'	62 (7.6)	191 (23.5)	253	31.2
No	200 (24.6)	358 (44.8)	558	68.7
<b>Number of boy friends</b>				
One	48 (5.9)	166 (20.4)	226	27.8
Two	10 (1.2)	10 (1.2)	20	2.5
Three	3 (0.4)	4 (0.5)	7	.9
Have no partner	202 (24.9)	369 (45.4)	571	68.8
<b>Ever had sex</b>				
'yes'	23 (2.8)	110 (13.5)	133	16.4
'no	236 (29.1)	434(53.4)	679	83.6
<b>No of partner with whom had sex</b>				
One	13 (1.6)	98 (12.1)	111	13.7
Two	2 (0.2)	9 (1.1)	11	1.4
Three or more	2 (0.2)	5 (0.6)	7	.9
<b>Used condom or other contraceptive during sex</b>				
Yes	14 (1.7)	75 (9.2)	89	11
No	3 (0.4)	35 (4.3)	38	4.7
<b>Condom or contraceptives used</b>				
Condom	5 (0.6)	29 (3.6)	34	4.2
Emergency contraceptives	3 (0.4)	29 (3.6)	32	3.9
Pills	2 (0.2)	12 (1.5)	14	1.7
Others	3 (0.4)	13 (1.6)	16	1.8
<b>Had a sex with in the last one year</b>				
Yes	7 (0.9)	81 (10)	88	10.8
No	10 (1.2)	28 (3.4)	38	4.6

Contraceptives “others”=modern contraceptives except above mentioned

### **6.3. Health Facility Related characteristics**

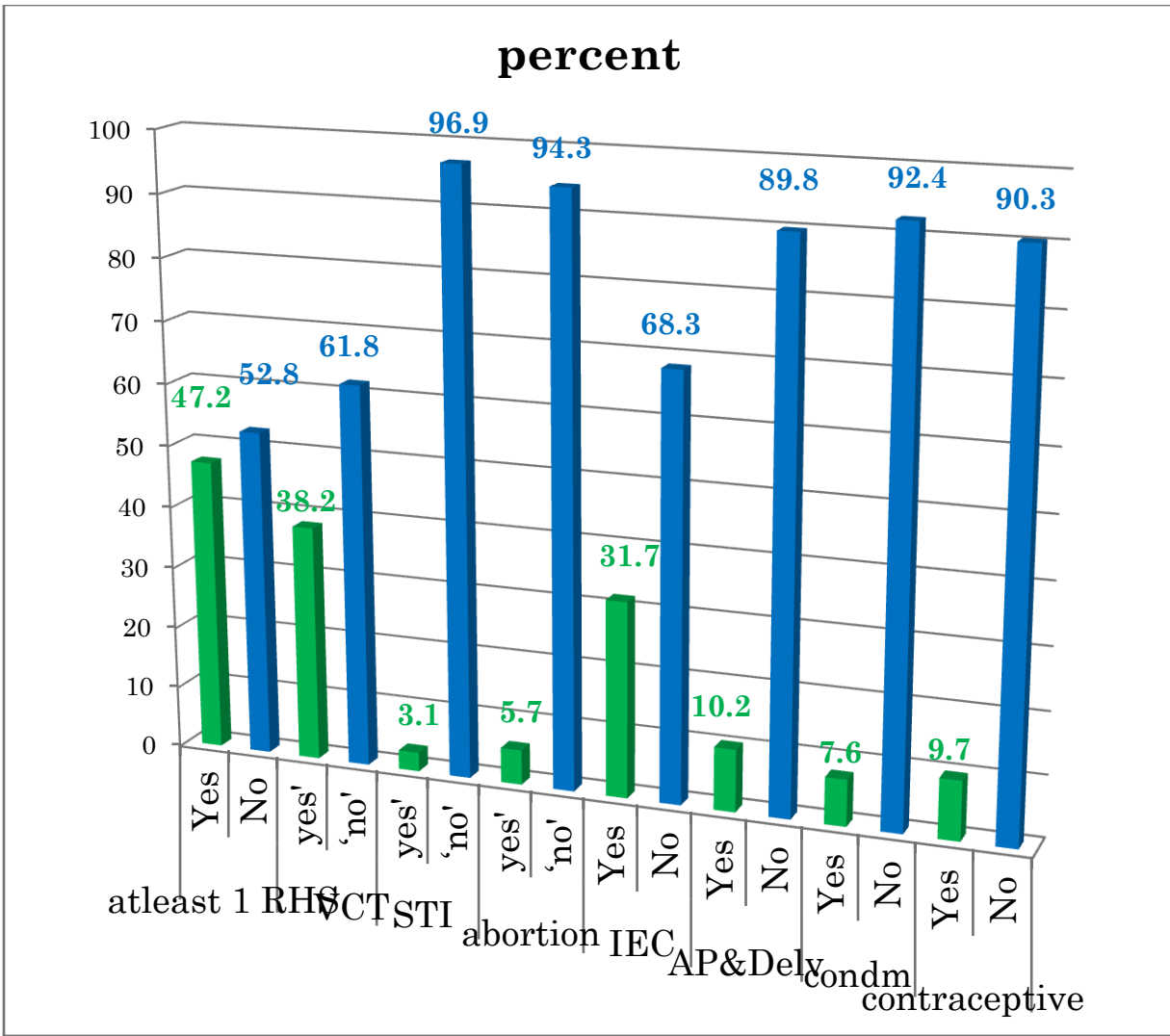
Two hundred thirty five (61.3%) of participants who utilized the service responded that the privacy of clients was not adequate while 148 (38.6%) of them responded that privacy was adequate in their nearby RH service center. Out of those who have utilized the service, 223 (58.2) responded that health providers in their nearby RH service center spend adequate consultation time counseling them while 160 (41.8%) of them responded that they didn't spend adequate consultation time. Two hundred three (53%) of participants who utilized the service, responded that waiting time was too long and 180(47%) of them responded that waiting time was reasonable in their nearby RH service center. Out of those who utilized the service, 174 (45.4%) responded that, availability of the medical services was adequate, while 208 (54.6) of them responded that availability of the medical services was not adequate. Ninety five (24.8%) of those female adolescent, who utilized the service responded that the attitude of health workers in the nearby RH service center was excellent, 126 (32.9) responded that the attitude of health workers in the nearby RH center was good and 162 (42.3) of them responded that the attitude of health workers in the nearby RH center was not so good. Sixty three point five percent and thirty six point five of participants responded that they have RH service center with within 30 minute walk or 130 km distance from their home and have not respectively (**Table 3**).

**Table 3:** Health facility related characteristics of female adolescents in Kacha-birra district, South Ethiopia, March 2016

Variables	Age group (in years)		Total	Percent
	10-14 NO (%)	15-19 NO (%)		
<b>Perceived privacy of clients at the HF</b>				
adequate'	48(12.5)	100(26.1)	148	38.6
not adequate	71(18.5)	164(42.8)	235	61.3
<b>perceived consultation time</b>				
Adequate	51(13.3)	155(40.5)	223	58.2
Not adequate	68(17.8)	109(28.5)	160	41.8
<b>Perceived waiting time</b>				
too long	66(17.2 )	137(35.8)	203	53
reasonable'	53(13.8)	127(33.2)	180	47
<b>Perceived availability of services</b>				
adequate'	50 (13)	124(32.4)	174	45.4
not adequate	69(18)	139 (32.6)	208	54.6
<b>Perceived attitude of health workers</b>				
excellent'	32(8.4)	63(16.5)	95	24.8
good'	39(10.2)	87(22.7)	126	32.9
not so good	48(12.5)	114(29.8)	162	42.3
<b>RHS center with in 10km walk</b>				
yes'	161 (20)	355 (43.5)	516	63.5
'no'	102 (12.6)	194 (23.9)	296	36.5

#### 6.4. ARH service utilization

Three hundred eighty three (47.2 %) (95% CI:43.7-50.6%) of participants had ever used at least one of the RH services the most commonly utilized services being VCT 310 (38.2%) and IEC 257 (31.7) followed by ANC,PNC and delivery 83 (10.2%), contraceptive 79 (9.75%), condom 62 (7.6%), abortion care 46 (5.7%) and STI treatment 25 (3.1%). One hundred eleven (13.7%) of participants utilized at least one of the RH services within the last six months (**Figure 4**).



**Figure 4:** RH services utilized among female adolescents, Kacha-birra district, South Ethiopia, March 2016

**6.5. Results of Results of bivariable analyses**

In order to identify factors associated with ever utilization of female adolescent reproductive health service, bivariate analysis was carried out (**Table 4**).

**Table 4:** Bivariate analysis of factors associated with reproductive health service utilization among adolescent females of Kachabirra district, 2016

Variables	RH Service utilization		Crude OR	P value
	Yes	No	95% CI	
<b>Age</b>				
10-14	120	143	1	
15-19	263	286	1.096(.816-1.472)	.243*
<b>Marital status</b>				
Single	298	396	1	
Others	85	33	.292(.190- .449)	.000*
<b>Educational status</b>				
no formal education	38	40	1	.416
grade 1-8	176	217	1.171(.720- 1.905)	.124*
Secondary and above	169	172	.967(.591- 1.582)	.893
<b>Schooling status</b>				
in school	248	302	1.294 (.964-1.738)	.086*
Out school	135	127	1	
<b>Living arrangement with</b>				
Others	67	7	1	.000
Father	20	20	12.124(5.074-28.971)	.000*
Mother	45	57	9.571(3.538- 25.891)	.000*
Both father and mother	251	345	13.156(5.939-29.143)	.000*
<b>Mothers educational Status</b>				
no formal education	102	105	1	.760
grade 1-8	195	222	1.106(.792-1.544)	.554
Secondary and above	10	1	1.152(.776-1.711)	.483
<b>Fathers educational status</b>				
no formal education	203	231	1	.954
grade 1-8	77	96	1.061(.727-1.549)	.759
Secondary and above	103	102	1.042(.687-1.579)	.848
<b>Sexual experience</b>				
sexually experienced	113	20	8.635(5.237-14.237)	.000*
Not sexually experienced	265	405	1	
<b>Personal Knowledge RH</b>				
Knowledgeable	261	280	.878 (.655-1.177)	.385
Not knowledgeable	122	149	1	
<b>Family income</b>				
below1205 ETB	325	375	1.239 (.831-1.848)	.292
above 1205 ETB	58	54	1	
<b>Parent occupation</b>				
'farmer'	317	351	1	.828
formal employment	22	27	1.108(.619-1.986)	.729
causal laborer	22	21	.862(.465-1.598)	.637
Self-employment	22	30	1.232(.696-2.179)	.474
<b>Physical proximity</b>				
Yes	263	253	1.525(1.142- 2.036)	.004*

No	120	176	1	
<b>Availability of medical service</b>				
Adequate	50	124	1.449(.783- 2.681)	.238*
Not adequate	69	139	1	
<b>Attitude of health providers</b>				
not so good	48	114	1	.000*
Good Attitude	39	87	2.424(.996 5.901)	.051*
Excellent	32	63	5.254(2.255-12.243)	.000*
<b>PRIVACY</b>				
Not Adequate	71	164	2.298 (1.232- 4.286)	.009*
Adequate	48	100	1	
<b>Adequate consultation time</b>				
Yes	51	155	3.584(1.826- 7.034)	.000*
No	68	109	1	
<b>Waiting time</b>				
reasonable	53	127	1.673(.882- 3.174)	.115*
Too long	66	137	1	

**1= reference category, living arrangement “others”=include relatives, husband or brother/sisters, Marital status ‘Others’=married, separated and divorced, \*= candidate for multivariable analysis, religion ‘others’ include Muslims, Jove, Adventism**

## 6.6. Results of Multivariable Analysis

In multivariable analysis, the Nagelkerke R Square was 0.235. Thus, around 23.5% of the ARH service utilization variation is explained by study variables. Multicollinearity was checked by using variance inflation factor.

In multivariable analysis, from total candidate variables, only age, living arrangement, attitude of health providers and consultation time in their nearby RH service center were found to be statistically significantly associated with female adolescent RH service utilization.

Age of participants was found to be statistically significantly associated with female adolescent reproductive health service utilization. Female adolescents of age 15-19 years utilized RHS 3.3 times more likely than those of age 10-14 years (AOR=3.295, 95% CI:1.411- 7.696).

Living arrangement of the female adolescents was also statistically significantly associated with the utilization of female adolescent RH service. The likelihood of RH services uptake was about

9.6 times higher among female adolescents living with both parents than those adolescent females living with others (AOR=9.630, 95% CI: 1.237- 74.983).

Attitude of service providers was also found to be statistically significantly associated with female adolescent RH service utilization. Those female adolescents whose nearby RH service centers are staffed by health providers with excellent attitudes, were 4 times more likely to utilize RH service than those female adolescents whose nearby RH service centers are staffed by health providers with not so good attitudes (AOR=3.816, 95% CI=1.561- 9.324).

This study revealed that consultation time in the nearby RH service centers was also statistically significantly associated with female adolescent reproductive health service utilization. Those female adolescents with adequate consultation time in their nearby RH service center were 2.4 times more likely utilize female adolescent reproductive health service than those female adolescents with not adequate consultation time in their nearby RH service center (AOR=2.450, 95% CI:1.178- 5.094) (**Table 5**)

**Table 5:** Multivariable analysis of candidate variables with reproductive health service utilization among adolescent females of Kachabirra district, 2016

Variables	RH Service utilization		Adjusted OR	P value
	Yes	No	95% CI	
<b>Age</b>				
10-14	120	143	1	
15-19	263	286	<b>3.295(1.411- 7.696) **</b>	.006
<b>Marital status</b>				
Single	298	396	1	
Others	85	33	.904(.176-4.634)	.904
<b>Educational status</b>				
no formal education	38	40	1	.029
grade 1-8	176	217	2.382(.487-11.658)	.284
Secondary and above	169	172	.928(.184-4.672)	.928
<b>Schooling status</b>				
in school	248	302	.798(.378-1.684)	.553
Out school	135	127	1	
<b>Living arrangement with</b>				
<b>Others</b>	67	7	1	.080
Father	20	20	1.849(.098-34.863)	.682
Mother	45	57	8.857(.977-80.252)	.052
Both father and mother	251	345	<b>9.630(1.237-74.983) **</b>	.031
<b>Sexual experience</b>				
sexually experienced	113	20	.657(.241-1.789)	.411
Not sexually experienced	265	405	1	
<b>Physical proximity</b>				
Yes	263	253	1.876(.940-3.745)	.074
No	120	176	1	
<b>Availability of m service</b>				
Adequate	50	124	1.055(.511-2.179)	.884
Not adequate	69	139	1	
<b>Attitude of health providers</b>				
not so good	48	114	1	.009
Good Attitude	39	87	2.382(.935-6.069)	.069
Excellent	32	63	<b>4.204(1.684-10.497) **</b>	.002
<b>PRIVACY</b>				
Not Adequate	71	164	1.077(.512-2.269)	.845
Adequate	48	100	1	
<b>Adequate consultation time</b>				
Yes	51	155	<b>2.450(1.178-5.094) **</b>	.016
No	68	109	1	
<b>Waiting time</b>				
reasonable	53	127	.893(.414-1.926)	.773
Too long	66	137	1	

1= reference category, \*\*=significant association, living arrangement “others”=include relatives, husband or brother/sisters, Marital status ‘Others’=married, separated and divorced, religion ‘others’ include Muslims, Jove, Adventism



## CHAPTER SEVEN: DISCUSSIONS

The main focus of this study was to assess the reproductive health service utilization and factors associated with utilization among female adolescents aged (age 10- 19 years) in the study district. Ever use of RH services is mainly measured as the practice of adolescents with RH service utilization. The finding of this study showed that the majority of female adolescents were not utilizing RH services in the study district.

About 383 (47.2 %) (95% CI:43.7-50.6%) of participants had ever used at least one of the RH services with the most commonly utilized services being VCT 310 (38.2%) and IEC 257 (31.7) followed by ANC,PNC and delivery 83 (10.2%), contraceptive 79 (9.75%), condom 62 (7.6%), abortion care 46 (5.7%) and STI treatment 25 (3.1%) which was almost similar to that of Jimma, which showed that, 41.1%, were ever users of RH services. 34% of adolescents ever used health services for Information, Education and Communication (IEC) followed by family planning 17.6%. 5% and 3.1% of them used health services for STI treatment and abortion care, respectively [12]. But this result is inconsistent with the study conducted in Nepal among higher secondary school students, which showed that, SRH service utilization proportion was lower among female adolescents (4.3%). This big difference is because female adolescents in the community have higher proportion of married female adolescents than those female adolescents in school [22].

Two hundred fifty three (31.2%) of adolescent females have sexual partners from this 27 (3.4%) have two or more partners and 133 (16.4%) have ever had sex (sexually experienced).This is almost lower than that of study conducted in Goba which showed that out of the total participants 58.70% have had sexual partner, and 52.60% have had sexual intercourse and this difference is because the Goba study was conducted among urban adolescents whereas this one is conducted among rural. In this study, condom or other contraceptives were utilized by 11% of participants (33% of those who are sexually experienced) which are the same to that of Goba study that showed that, out those who experienced sexual intercourse, 28.60% did not use any modern contraception [19].

In this study only age, living arrangement, attitude of service providers and consultation time were found to be statistically significantly associated with RH service utilization.

Female adolescents of age 15-19 years utilized RHS 3 times more likely than those of age 10- 14 years, which was almost similar to that of Machakel district where adolescents of age 15-19 years utilized two times that of adolescents of age 10-19 years [21], which may be due to lack of awareness and feeling of shame and fear during the early adolescence.

This study showed that living with both parents increases the utilization of female adolescent reproductive health services among adolescents of the district. This is because family (parental) interaction and communication about RH services and its importance, which is consistent with the findings of studies, conducted in Jimma, Gonder and Gojjam [12, 18, 21]. But this is contradictory to the institution based Study conducted in Zimbabwe [24].

In multivariate analysis, from health facility related factors, attitude of health providers and consultation time were found to be factors affecting female adolescent RH service utilization, which is consistent with the study conducted in Bahir Dar which showed that barriers to Adolescent RH service utilization are too long waiting hours (28.4%), too short consultation hour (25.4%) judgmental and unfriendly providers (23.6%) [28].

This study found that the attitude of the health workers affects the utilization of adolescent female reproductive health service. Because the behavior of health care providers with bad attitude may create discomfort and shame to adolescents, they face the barrier for the utilization of the service. That leave adolescents avoid seeking health care services, which is in line with the study conducted in Eastern Harerge, Kenya and Zambia [29,30,31].

In this study, the consultation time in the nearby RH service center is also identified as a factor that influences utilization of female adolescent reproductive health service. Adequate consultation time in nearby health facility increases the utilization of adolescent female RH service. But there are no literatures to compare the result, because of absence of the studies that assessed the association of consultation time and adolescent reproductive health service utilization. This may be because of adolescents' behavior that they require long consultation time which is because of their preference of telling other cause for their visit to the facility rather than telling directly their RH related problem until they take the attention of the provider.

As the study design being cross sectional, it is difficult to determine causal relationship between variables. Reports of sexual activities and related behaviors might have been restrained by taboo behaviors. The quantitative nature of study design might not allow for probing into certain areas which needed further qualitative description. Recall bias is might be potential limitation because the information was collected retrospectively. Because of the sensitive nature of the information, accuracy of the information might be limited. Social desirability bias might have resulted in underreporting of the service utilized.

## **CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS**

### **8.1. Conclusion**

In general, this study found that reproductive service utilization among female adolescents in the study area was low and socio-demographic and health facility related factors such as age, living arrangement, attitude of RH service providers and consultation time in the nearby health facilities were found to be factors affecting female adolescent reproductive health services utilization.

### **8.2. Recommendation**

Based the study findings, the following recommendations were forwarded:

#### **To Kachabirra district health office**

- The district health office and health institutions should work on initiation of adolescent RH service utilization by using schools and youth centers in order to address those adolescent females living without mother and father.
- Health workers who work in adolescent RH service should be trained about adolescent friendly services in order to improve their attitude and approaches towards the service utilizers.
- Health facilities should provide adolescent RH service with enough providers and classes to improve the consultation time for adolescent females who visit the health facility for any of RH services.

### **8.3. Further Research Implication**

Studies with stronger designs need to be conducted in other area to generate more supportive evidence regarding female adolescent reproductive health service utilization including urban and rural females to estimate their utilization patterns for reproductive health services, to assess factors affecting the utilization and finally to inform policy modifications and formulation.

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## **APPENDIX I: PARTICIPANT INFORMATION SHEET**

Hi, how are you? My name is\_\_\_\_\_. This is an interview to be done with you for a study that is being conducted at Jimma University, College of Public Health, and Department of Epidemiology. The purpose of the study is to assess utilization of female adolescent reproductive health services and associated factors. We would like to ask you some questions that are related to the above topic. We believe that the results of this study will assist policy makers, planners and health service providers for making considerations regarding utilization of female adolescent reproductive health services. Your contribution has a great input for the study and I would greatly appreciate your participation. There is no possible risk associated with participating in this study. Your name will not be written in the questionnaire and please be assured that all the information you give will be kept strictly confidential. Your participation is completely voluntary. Therefore, you will not be obliged to answer any question that you do not want to and you may end this interview at any time you want to. There are also no obligations for not participating in the interview. The interview will take about 15 minutes.

**ANNEXES II. CONSENT FORM**

**a. Parental consent form**

I understand that my daughter’s participation in this study is entirely voluntary and that she can withdraw from this study at any time without giving a reason.

I understand that I am free to ask any questions at any time. I am free to discuss any questions or comments I would like to make with (supervisor).

Also I know that there is no thing that makes me worry about my daughter’s involvement in this study. Date: ..... Signature of Parent or Guardian: .....

**b. Oral Consent Form of adolescents**

I have read the information sheet concerning this study (or have understood the verbal explanation) and I understand what will be required of me and what will happen to me if I take part in it. I also understand that any time I have right to withdraw from this study without giving a reason.

Participant’s signature \_\_\_\_\_ Date \_\_\_\_\_ Interviewer signature \_\_\_\_\_  
certifying that the informed consent has been given verbally.

Interviewer’s signature \_\_\_\_\_ Date \_\_\_\_\_

**May I continue the interview?**

- 1. Yes \_\_\_\_\_ Continue the interview
- 2. No \_\_\_\_\_ Stop the interview and thank the respondent

**Result: (to confirm for completeness)** A. Questionnaire completed \_\_\_\_\_  
B. Questionnaire partially completed \_\_\_\_\_ C. Participant refused \_\_\_\_\_  
D. Others (please Specify) \_\_\_\_\_

**Checked by Supervisor:**

Supervisor’s Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

### ANNEXES III. QUESTINAIRE

No	1. Questions	Response	Skip
101	What is your age in years? .....		
102	What is your current schooling status?	1. In school 2. out school	
103	What is your marital status?	1. Married 2. Single	
104	Have you a sexual partner?	1) Yes 2) no	
105	If yes for question 4 how many partners have you?	1) One 2) two 3. three or more	<b>If no</b>
106	Have you ever had a sex?	1) Yes 2) no	
107	If yes for question 6, with how many partners did you have a sex till now?	1) One 2) two 3) three or more	<b>If no</b>
108	If yes for question 6, did you use condom or other contraceptive methods during the sex?	1. yes 2.no	<b>If no</b>
109	If yes what did you used?	1. pills 2) Condom 3) emergency 4) others	
110	If yes for question 6, have you had a sex with in the last 12 months?	1) Yes 2) no	<b>If no</b>
111	What is your religion?	1. Protestant 2. Orthodox 3. Muslim 3) Catholic 4. Other (specify)	
112	How often do you attend religious services?	1. Every day 2. At least once a week 3. At least once in a month 4. At least once in a year 5. Never	
113	What is your ethnicity?	1. Kambata 2.Hadiya 3) Woleyita 4) Others (specify).	
114	What is your educational status?	1) No formal education but (only read and write) 2. 1 to 8 grade 3. 8 to 12 grade 4. diploma 5. degree and above	
115	With whom, you are living?	1. Father 2. Mother 3.both 4. with others (specify)	
116	If present, what is your father's educational level?	1. Illiterate 2. 1-8 3. 9-12 4. college and above	
117	If present what is your mother's educational level?	1) Illiterate 2. 1-8 3. 9-12 4. college and above	
118	What is his/her/their occupation?	1. Formal employment (Teacher, civil servant, NGO worker etc) 2. Casual laborer	

		3. Self-employment/business 4. Farmer	
119	Do you know any reproductive health service?	1) Yes 2) no	
120	If yes for question 20, what RH services do you know?	i) Is contraceptive RH service? 1. yes 2.no ii. Which of the followings is not modern contraceptive method? 1.pills 2.dipoprovera 3.condom 4. rhythmic methods 5.no answer iii. One of the following is not the importance of condom? 1. prevent transmission of HIV 2. prevent transmission of other STIs 3. prevent occurrence of pregnancy 4. Cures from STI 5. no answer iv) VCT of HIV is one of the RH services? 1. True 2. False v) STI treatment is one of the RH services. 1. True 2. False vi). Sports and exercise is one of RH the services? 1. True 2. False vii) Abortion care is not RH service? 1. True 2. False viii) IEC is not RH service? 1. True 2. False	
121	If yes who told you about ARHS?	1. Parent/ guardian 2. Friend/Peer 3. Teacher 4. I read on a notice board	

		5. TV 6. radio 7. I do not know of any	
122	Have you ever discussed about reproductive health?	1) Yes 2) no	
123	With whom did you discuss?	1. Parent/ guardian 2. Friend/Peer 3. health workers	
<b>2. Questions on Utilization of ARH service</b>			
No	Questions	Response	Skip
<b>201.</b>	Have you ever used any of adolescent Reproductive health services?	1) Yes 2) No	
	If yes which of the following services did you utilize?		
	I have you ever used VCT services	1) Yes 2) No	
	II Have you ever used Treatment of STI?	1) Yes 2) No	
	III Have you ever used abortion services?	1) Yes 2) No	
	IV Have you ever used IEC service?	1) Yes 2) no	
	V Have you ever used ANC, PNC and Delivery service?	1) Yes 2) No	
	VI Have you ever used condom?	1)Yes 2) No	
	VII Have you ever used contraceptive methods	1) Yes 2) No	
202	If yes for question no 201, did you visit ARH services within the last 6 month for any service?	1. Yes 2. No	
203	If you have had sex, what contraceptive method did you use the first time you had the sex	1.I didn't used any contraceptives 2. Condom 3.OCP 4. Depo-Provera 5. IUCD 6. Implanon 7. Others specify	
204	If sexually experienced have you ever used condom?	1) Yes 2) no	

<b>3. Economic variables Questionnaires</b>			
301	If present, what is your parent(s) occupation?	1. Formal employment (Teacher,	

		civil servant, NGO worker etc.) 2. Casual laborer 3. Self-employment/business 4. Farmer	
302	2. What is your family monthly estimated average income (annual income divided by 12)?	.....	
303	How much birr do you get monthly from parents or elsewhere? ( <b>Estimate</b> )	.....	

<b>4. Health facility Factors</b>			
No	Question	Response	Code
401	Is there RH service center with in 30 minute walk or 10 km from your home?	1. Yes 2. No	
402	If yes in no.402, state the reason for not getting the service	1. The queue was long 2. I have no money for the service 3. I found neighbors and felt ashamed 4. The clinic is closed 5. The service provider refused to give the service/ was harsh	
403	What is difficulty in getting the service?	1. Cost 2. Distance to the HF 3. Fear and embarrassment	
404	If you have ever used a reproductive health service facility, how would you describe how you were handled by service provider?	1. Good-Friendly, welcoming, handled me well and gave me the service I required 2. Moderate-welcomed me but asked too many unnecessary questions before giving me service 3. Bad, he/she was harsh, rude and denied me service	
405	What do you say about the range/ availability of services offered at your nearby health facility?	1. Adequate 2. Not adequate	
406	How do you rate the attitude of health workers at your nearby health facility	1. Excellent 2. Good 3. Not so good	
407	If excellent or good, in what ways?	1. They were friendly 2. They made me feel at home 3. They also gave me time to talk	

		and they listened with interest 4. They were not judgmental	
408	If not so good, in what ways?	1. They were not friendly 2. They made me feel uncomfortable 3. They did not show interest when serving me 4. They were judgmental	
409	How was the privacy during service?	1. Adequate 1) Not adequate	
410	Providers spend adequate time with you during consultation?	1) Yes 2) No	
411	What do say about the time you took to start getting served after arrival at health facility (waiting time)?	1. Too long 2. Reasonable	

**Thank you!!!**



## **AFUUSHSHA I: SEREEGGOONTAS BARGAMAANNI DAGISIISHSHA WOREQATA**

Xumma? Summui \_\_\_\_\_yamamaammi. Ku hasaawwu Jimmi universteen mabereseb feyyima collejaan, epidemioloje dipartimantaan hujatanua sereegguhaa kaalluntanneehaat. Ku sereeggu baajaamma meegooma fayyimataa bargenti yoo xawaakkataa sereeggihaat. Kees ka aluudiin yoo qome xawaan mammatita xa'mmaakkata xa'mmaanke. Ani amma'naammigiin ka sereeggis laalut polise makkisaannu, yaadaannuhaa fayyima kaalato aassaannuhaa kaa'llano. Kii kaalatut ka sereeggiha abbat yoohaa ammoo ani bargamukki abbishshi galaxxaammi. Ka sereeggoon bargamiintakki waalanoo mexxuhuu godda'anchu yoobaeaa. Summukkii xaafamumbua, dagu hasisanokke xawu heoda, ati aattaanti xawaakkat hundunku misxirus qorabammeehaa. Bargamukki muluta muloon gagi iittaaneet. Hikkaan ikkobii ati hatta xummutaa fanqashshi iittitumbuu giddisantumbua ammoo fanqashshus hatta ma'nneenii ma saatahaa hassoontiichchi uurrissi qixxoomat yookkia. Ammoo sereeggoontas bargamu hoogiiha giddu yoobaii ihus dagu hasisanokke. Xu'mmus 15 daqiiqi qunxa aaqqitaau.

## AFUUSHSHA II: IITTANCHI FORMA

### a. Ilaanni te qorabaanni iittanchi forma

Beetui kanni sereeggoon/serekketoon bargamu faqaadanginnatiin ikkeeei ihusii gibbooda sereeggis xa'mmoochchi mereeron aguri qixxoomat yoosegaa dagaammi.

Esaa hatta xa'mmutaa xa'mmi qixxoomat yooegaa dagaammi. Kanni aleen hatta xa'mmutaa, ikko sawwittaii haasaawwi qixxoomat yooegaa dagaammi.

An dagaammiga beeto kanni sereeggoon bargamu wajjisiisanoeru yoba'a.

Ilaanchi te qorabaanchi firmu.....

Baru.....

### b. Harde iittanchi forma

Ka sereegguhaa serekketuhaa xudanooha anabbabbeemmi te kulammoe maccoocceemmigiin daggeemmi. Ammoo mi esaachchi hasammeendoo ammoo sereeggoontas bargammoommida mi ihanondoo daggeemmi. Ma saataanii sereeggis mereeriichchi ma gajaajjutii yoobaii agurri fulii dandaammigaa daggeemmi.

Hardichchis firma.....Baru.....

Hundant xa'mmut iittaan te faqaadanginnatiin ikkooga xa'mmaanchis firmu malahano.

Xa'mmaanchi su'mmu.....baru.....firma.....

### Xa'mmu insu xa'mmakkas?

1. Aa insi.....xa'mmus insi.
2. Insitoot.....Xa'mmus agurt galexxit agurt aguri.

### Laalus:-xa'mmakkas wiimiga mooshshii

A. Xa'mmakkas hundunku wiinteeu.....

B. Xa'mmaakkas bakkanu wiinteeu.....

C. Woloot (annanna assi).....

Halaqichchiinin xuudammeeu

Halaqichchis su'mmu.....firmu.....baru.....

**AFUUSHSHA III: XA'MMUTA**

<b>1. Socio-demographic Information (Kambatissa version)</b>		
<b>Wollu t</b>	<b>Xa'mmta</b>	<b>Fanqashshuta</b>
<b>101</b>	Umurukki meo woggaa?	
<b>102</b>	Kazammanu rossayyootindo?	1.aa roshsha aleeneet yoommii      2.rosimba'a
<b>103</b>	Aagishshegu hatteet?	1. aagishsheemmita                      2.aagisumbuta
<b>104</b>	Goonchi jaalu yookkendob?	1. Aa yooe                                      2. yooeba'a
<b>105</b>	104kki xa'mmoo aa yiteentida, meu jaalu yookke?	1. Matu      2.lamu      3. sasu te sasiichch aliin
<b>106</b>	Meegooma daqqancha assit kessan?	1. Aa asseemmi 2. assimba'a
<b>107</b>	106qqi xa'mmoo aa yiteentida, kebere illenqaxee meo jaaliin assiteent?	1. Matiin 2. Lamiin 3. sasiin te sasiich aliin
<b>108</b>	106qqi xa'mmoo aa yiteentida, Meegooma daqqanchi jaata, kondoma te wolu salee'nnooma ka'mmanchi woqqa ta'mmiteent?	1. aa ta'mmeemmi 2. ta'mmimba'a
<b>109</b>	Ta'mmiteentida mahaan ta'mmiteentiihu?	1.Kondoma                      2.dangitti ila ka'mmanchi kiniina 3. Kiniina (pills)              4. Woloot(annanna assi)
<b>110</b>	106qqi xa'mmoo aa yiteentida, higgs 12 agani azeen megooma daqqancha assiteent?	1. Aa asseemmi 2. assimba'a
<b>111</b>	Haymaanootukki (Ammanaatukki) mahaan?	1. Phenxichua (kirstianchua)              4. kaatoliika 2. Ortodoksa (kirstianchua)              5. woloot (xaaf) 3. Muslinchua
<b>112</b>	Tseloti mini memmeiqqi bareeneet martaantihu?	1. bareen, bareen 2. kochchoda hezzetoon mate 3. kochchoda aganaan mate 4. kochchoda woggan mate 5. mexxeny maraamba'a
<b>113</b>	Minabokkukki mahaan?	1. Kambaataa                      2. Hadiyyata 3. Wolayitta                      4. Woloot (annanna assi)...
<b>114</b>	Roshshakki qaxu habankaan?	1.xaafaammirii anabbabaammirii      2.1-8 kifila 3.9-12 kifila      4.diploomaa                      5. Digritanii aliineetii
<b>115</b>	Ayeeneet heayyoontiihu?	1. Anniin      2. Amaan      3. Anninii amaanii lamiinin 4. Minanniin      5.woliin (xaafi) .....
<b>116</b>	Annukki yooda, annikki roshsha qaxu habankaan?	1. Mexxurra rosimba'a (Illiterate)      2. 1-8 3. 9-12                                      4. kollejaanii aliineetii

117	Amakki yooda, amakki roshsha qaxu habankaan?	1. Mexxurra rossimba'a (Illiterate) 2. 1-8 3. 9-12 4. kollejaanii aliineetii
128	Amannaakkakki hujit mahaan?	1. Mangistaan hujetanua (rosisaanchua, civil servaantaa, NGOon hujatanua) 2. Bare hujita hujatanua 3. Gagis hujit/buznasu yoosia (naggadanua) 4. Hoga'anua
19	Harde megooma feyyima tame kaaletuta daggan?	1. aa dagaammi 2. Dagaamba'a
120	121qi xa'mmoo aa dagaammi yiteentida, hatta harde megooma feyyima tame kaaletuta daggan?	i. salee'nooma ka'mmanchi woqqoo harde megooma feyyima tame kaaletuta. A. <i>Garita</i> B. <i>qophphana</i> ii. Kanniichchi woroodiin yooriichchi hakkannees haabdoollichchu salee'nooma ka'mmanchi woqqa ihumbuu? A. <i>Kiniina</i> B. <i>marfaa te dipputa</i> C. <i>kondomaa</i> D. <i>meegooma daqqanchiichchi biritaa baris dagua</i> E. <i>fanqashshut yooba'a</i> iii. Kannichchi woroodiin yooriichchi matus kondomita tamiba'a? A. <i>HIV higu kamua</i> B. <i>Wolit megooma daqqanchiin waaltaa moosat higgumbogga kamua</i> C. <i>salee'nnoomata kamua</i> D. <i>meegooma daqqanchiin higgaa moossaakkata fayyisuaa</i> E. <i>fanqashshut yooba'a</i> iv. Gagi faqaadiin qegi marammaramu (VCT) harde megooma feyyima tame kaaletuta A. <i>garita</i> B. <i>qophphanaa</i> V. wole meegooma daqqanchiin waaltaa moosaakka hikiminnu harde megooma feyyima tame kaaletuta. A. <i>garita</i> B. <i>qophphanaa</i> vi. Sportuhuu mammatit lenqeeqqaakkatii harde megooma feyyima tame kaaletuta. A. <i>garita</i> B. <i>qophphanaa</i> vii. Salee'nooma dirrisina xiniqaaqe kaalatut megooma feyyima tame kaaletuta. A. <i>garita</i> B. <i>qophphanaa</i> viii. Megooma feyyima roshshat megooma feyyima tame kaaletoochchi mateessi. A. <i>garita</i> B. <i>qophphanaa</i>
121	121qi xa'mmoo aa yiteentida ayi kullokki?	1. Amannaakkat 2. Jaallaakkat 3. rosisaannu 4. Maastawoqiichchi(qaagishsha boordiichchi) anabbabbeemmi 5. Televizhiiniichchi xuujjeemmi 6. Raadooniichchi maccocceemmi 7. Hannoochchi maccocceemmindoo dagimba'a

122	Meegooma fayyimatannee haasaawwit kese?	1.aa haasaawweemmi	2.Haasaawwi kasaamba'a
123	Haasaawwiteentida ayeen haasaawwiteent?	1.amannakkaan/qorabano manniin/	2.jallaan 3. fayyima lubbammaan

## 2. Reproductive health service utilization questionnaire (Kambatissa version)

201	Harde megooma feyyima tame kaaletuta ta'mmit kessen?	1.aa ta'mmeemmi 2. ta'mmimba'a	
I	VCT tame kaaletuta ta'mmit kesa?	1. Aa ta'mmeemmi	2. ta'mmimba'a
II	Meegooma daqqanchiin waaltaa mossaakka akkamancha ta'mmit kessa?	1. Aa ta'mmeemmi	2. ta'mmimba'a
III	Salee'nooma dirriisi kaaletuta ta'mmit kesa?	1.aa ta'mmeemmi	2. ta'mmimba'a
IV	Megooma fayyima roshsha (sazana) kaaletuta ta'mmit kasa?	1. aa ta'mmeemmi	2. ta'mmimba'a
V	Ilaachchi bireen, zakkiinii ila jaata aasantaa kaaletuta ta'mmit kasa?	1.aa ta'mmeemmi	2. ta'mmimba'a
VI	Kondoma ta'mmit kasa?	1. Aa ta'mmeemmi	2. ta'mmimba'a
VII	Salee'nooma ke'mmami woqqakkata ta'mmit kasa?	1. aa ta'mmeemmi	2. ta'mmimba'a
202	202kki xa'mmo Kaalatus ta'mmiteentida, Bere'ee higgo 6 agani azeen harde megooma feyyima tame kaaletu mini martent?	1. Aa marreemmi	2. marimba'a
203	Meegooma daqqancha assiteentiita ikkeentida, wona bari assitoonti saata salee'nooma ke'mmami woqqaa ma ta'mmiteent?	1. Ta'mmimba'a	2. Qurcaennua kiniina 3. .kondoma 4. marfaa (dipputa) 5. Mahitsanaan woreennua 6. angaan moogeennua 7. Woloot (kuli).....
204	Megooma daqqancha assit kassaantida, condoma ta'mmit kasa?	1. aa ta'mmeemmi	2. ta'mmimba'a

## 3. Aphpho malahannu

301	Amannaakkakki yooda, mahaan hujissa?	1. mangisti hujataanchua 2. bare /maqee hujita hujatanua 3. Gagisi hujit yoosia/ naggadanua 4. Hoga'anua	
302	Mini'nne abaroosi gabit meu ikkaa (woggee gabit 12 aganiin beehantooda)? .....	.....	
303	Aganaan annamaakkaachchii ikko hannoochchii kesaa meu birru iillanokke?(gammati)	.....	

## 4. Fayyima mini hagara malahannu

401	Heanti miniichchi 10km te 30 daqiiqi lokka woqqee azeen meegooma fayyima kaalato	1. aa you	2.yooba'a
-----	--	-----------	-----------

	minu yoo?	
402	402ki xa'mmoo, aa yiteentida ta'mmu hoogihaanki gajaajjus mahaan?	1. worefu hoolama ikkootanneehaat 2. gizzu yooebai tanneehaat 3. hegeegi manna daggi saalleemmitanneehaat 4. fayyimasi minu xufammeetanneehaat 5. fayyima kaalato aassaannus kaalatus aassu gibbiaaneet
403	Fayyima kaaletuta daqqii kee'mmayyooii mahaan?	1.baateennosia waaga 2. Kaalatosi miniichch yootaa qerini 3. waajjuanii saaluunii
404	Meegooma fayyima kaalato mini ta'mmit kassaantida, martoonti bari fayyima lubbaammas hattita affeekkendoo, hattita kultan?	1. Danaamua- jaaliagga, waali yit aaqqitayyoohaarra, danaamogga affi hashshoommi kaaletuta aasitee'e 2.Aaqqitee'e mahaa ikkaaba'a, ikkoda, kaalatus aassichchissa bareen hoolamata hasissumbuta xa'mmaakkata xa'mmitee'e 3. Farraakkata, boroo'rrantaahaarra ammoo hashshoommi kaalatunt aassu faian habbi agurteei.
405	Hegeegikki fayyima kaalato mineen yoo kaalato qaxu habankaan?	1. Ihanua qaxa 2. Qawuanka
406	Hegeegoontakki yoo fayyima kaalato huje mineen yoo kaalato assanni ammalakaakkata (xuudancha) hattita kultan?	1.abbishsh abbishsh danaamua 2.danaamua 3.kankaanka
407	Abbishsh, abbishsh danaamu te danaamu ikkeeda, miineet?	1. abbissi jaaliagga haasaawwissaaii 2. Eesi mine yoommihanniga agudisiisseei 3. esaa xawaaqqunta saata aatti wozanassa fanqashshit maccooteeu. 4. isso'oo wozanibii xalla ihun yitumbuaarra
408	Kankanka ikkeeda, miineet?	1.hinceennussa jaaliaggaba'a 2. kee'mmano'ega sawwiyunta assitee'e(saalaammiga assitee'e) 3. Eesi kaa'llii hassaaga malakkimbai 4. isso'oo wozanibii xallu ihun yitaahaarra
409	Fayyimasi kaalatuata aaqqitoont saata misxirikki qorabanchu hattigutan?	1. qorabammehaa 2. kankaanka
410	Fayyima kaalato aassaanchu keesi sazan ihanohe qaxa saata higishshee?	1. aa higishsheei 2. ihano qaxa higisimba'a
411	Fayyima kaalato mini mart kaalatus insiichchi birsit qorabbaant saata ma yitan?	1. abbishshi qeraa'ruuaa 2. qeraa'ruuaba'a

**Galaxxaammi!!!**

**DECLARATION**

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university, and all sources of materials used for this thesis have been fully acknowledged.

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Signature: \_\_\_\_\_ date: \_\_\_\_\_

Place of submission: Jimma University, Collage of Health Science, department of epidemiology.

Date of Submission: \_\_\_\_\_

This thesis work will be submitted for examination with my approval as the university advisor.

Advisor name	Signature	Date
Internal evaluator _____	_____	_____
Modulator _____	_____	_____