



ADDIS ABABA UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
SCHOOL OF PUBLIC HEALTH

MAGNITUDE AND ASSOCIATED FACTORS OF FEMALE GENITAL  
MUTILATION AMONG HIGH SCHOOL AND PREPARATORY STUDENTS IN  
DALE WABERA WOREDA, OROMIA REGIONAL STATE

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## **List of acronyms/abbreviations**

- AAU----Addis Ababa University
- AIDS----Acquired immune deficiency syndrome
- AOR-----Adjusted Odds Ratio
- BLS ----Base Line Survey
- CI----- Confidence Interval
- COR----Crude Odds Ratio
- DHS----Demographic and Health Survey
- EDHS---Ethiopian Demographic and Health Survey
- EECMY—Ethiopian Evangelical Church Mekena Yesus
- EGLDAM—Ye Ethiopia Goji Limadawi Dirgitoch Aswogaj Mahber
- FGC----Female genital cutting
- FGD----Focus group discussion
- SUS----Follow Up Survey
- GTZ----Development Cooperation of Germany
- FGM----Female genital mutilation
- HIV----Human immunodeficiency virus
- MICS---Multiple cluster indicators survey
- REC---Research and Ethical Committee
- SPH----School of public health
- SPSS---Statistical package for social sciences
- WHO---World Health Organization

## **Abstract**

**Background:** According to Ethiopian Demographic and Health survey (EDHS) 2005 the prevalence of Female Genital Mutilation was 74.3% in the country and it was 87.2% in Oromia Regional State. Other than Demographic and Health Survey data studies showing the prevalence of Female Genital Mutilation is scarce and in some areas inexistent. So, this study was conducted to give evidence based information for intervention especially in the study area.

**Objective:** The aim of this study was to explore the status of Female Genital Mutilation and identifying the associated factors and peoples' perception towards it among high school and preparatory school students in Dale Wabera woreda, Oromia National Regional State.

**Method:** A cross sectional quantitative study design supplemented with qualitative study was conducted. A 95% confidence level and 3% margin of error used to study the magnitude of FGM among **798** high school and preparatory students. A multi stage sampling procedure was employed to select female students in the schools. Sections were randomly selected from each grade and also study participants were selected by simple random sampling technique. The data analysis methods used were: Univariate for frequencies, and percentage; bivariate analysis to see association between independent and dependent variables and logistic regression to see the independent effect of selected variables on the magnitude of Female Genital Mutilation. Qualitative data collected through focus group discussion and an in-depth interview were analysed using content analysis to see communities' perception towards the practice of Female Genital Mutilation.

**Result:** Data were collected from 769 study participants with a response rate of 96.4%. About 78%, 95% CI (74.9%, 80.7%) of the study participants underwent the procedure.

Age  $\geq 17$  [AOR=1.8, 95% CI (1.28, 2.61)], grades 11 and 12 [AOR =2.98; 95% CI (1.45, 6.12)] and [AOR=6.52, 95% CI (1.85, 22.94)], respectively, being from rural area [AOR= 1.6, 95% CI (1.01, 2.52)], and house wife & merchant mother occupation [AOR= 2.38, 95% CI (1.07, 5.29)] & [AOR= 2.72, 95% CI (1.04, 7.12)], respectively were independently associated to higher prevalence of Female Genital Mutilation. In this study, culture, fear of stigma, shame, and hygiene were some of the perceived reasons for Female Genital Mutilation.

**Conclusion:** Irrespective of different forms of interventions in the country, the prevalence of Female Genital Mutilation is still very high in the study area. Those who are at higher risk have to be addressed especially rural residents.

# **1. INTRODUCTION**

## **1.1 Background**

Female genital cutting, also termed female genital mutilation (FGM), pertains to any interventions that may involve injury or removal of the female external genitalia either partial or total for any reasons other than therapeutic (1, 2). The practice was first known as female circumcision, but since the late 1970s this was replaced by the term Female Genital Mutilation (FGM) to give a better reflection of the violation of the woman or girl's basic human rights (2-4). The practice is widespread in 28 African countries, concentrated around the belt of the Sahel (5-7). FGM is also practiced in some countries in the Middle East and Asia. The practice is also found among immigrants from these areas to Europe, North America, and Australia.

Although the practice has been exercised in most developing countries of various cultures, there is no definitive evidence documenting when or why this ritual begun. Some theories suggest that FGM might have been practiced in ancient Greece, Rome, Pre-Islamic Arabia and the Russian Federation (8) .

## **1.2 Statement of the problem**

According to World Health Organization (WHO), about 130 million women and girls in the world have been victims of some kind of FGM. It has also been estimated that each year about three million girls are at risk or are subjected to some kind of ablation, essentially in the 28 countries in sub-Saharan Africa, where this type of ritual has strong, ancestral roots (9, 10). During 2005/2006, the prevalence of FGM/FGC in 27 African countries ranges from 97.9% in Somalia to 0.6% in Uganda and according to EDHS 2005, this value was 74.3% in Ethiopia and 87.2% in Oromia National Regional State (11).

WHO has classified FGM into four types namely: Type I (clitoridectomy) –partial or total removal of the clitoris, with or without excision of part or all of prepuce , Type II (excision or sunna)–partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora, Type III (infibulations) – narrowing the vaginal opening through the creation of a covering seal by cutting and repositioning the labia minora and/or the labia majora, and with or without removal of the clitoris, and Type IV (unclassified) – all other harmful procedures to the female genitalia for non-medical reasons, such as pricking,

piercing, incising, scraping and cauterizing the genital area (2). Although the terms are similar the damage depends on the type (12).

In the study area Female Genital Mutilation was being practiced just about a year before marriage when female students' school enrolment was low, but currently since most of the girls are attending their education up to and beyond high school, they undergo this procedure during their primary education and during the summer and inter- semester vacation of grade 9 and 10.

### **1.3 Significance of the study**

Even though the prevalence of FGM in Ethiopia seems declining, according to EDHS from 80% in 2000 to 74.3% in 2005, in some areas where awareness is low the prevalence of this harmful traditional practice is still very high. Though the prevalence of Female Genital Mutilation in the study area is not studied yet, from EDHS 2005 the prevalence of FGM in Oromia region was 87.2% which is alarming figure (13).

So, this study will identify the magnitude of FGM in high school female students in Dale Wabera woreda and perception towards and provides information for evidence based intervention for governmental and nongovernmental organizations.

## **2. Literature review**

Female genital mutilation is recognized by many as an issue of medical, social and legal concern. At present, female genital mutilation (FGM), also called female genital cutting (FGC), remains common in many cultures in Africa and the Middle East, varying in form and severity as a result of each group's socio-cultural norms and belief systems (2, 9).

Government, international human rights bodies, and non-governmental organizations have engaged in efforts to eradicate the practice of female genital mutilation, including specific legislation prohibiting the practice, public education campaigns and international conventions and resolutions condemning the practice (2, 14). At the national level 16 African countries have passed legislation on the topic of FGM. However, many countries lack the implementation of the law (15). Ethiopia is one of the countries with this legislation. Accordingly, in 2005 the Parliament endorsed the revised penal code of Ethiopia. Articles 568 and 569 of the revised code have provisions on circumcision and infibulations respectively. In Article 568 penalty for circumcision ranges from 3 months imprisonment to 3 years and a fine of no less than Birr 500 to 10000 or both imprisonment and fine (16). Article 569 which focuses on infibulations states; —*Anyone if engaged in stitching the genital part of a woman shall be punished by rigorous prison term of 3 to 5 years. If the practice causes physical or health injury notwithstanding the severe punishment provided in the Penal Code, the penalty will be rigorous prison term of 5 to 10 years*” (15).

### **2.1 Origin of female genital mutilation**

Evidence from Egyptian mummies suggests that a form of FGM was routinely practised some 5000 years ago. In ancient Rome, metal rings were passed through the labia of female slaves to prevent them from procreating. The United Kingdom in the 19th century allowed the surgical removal of the clitoris as an accepted technique for the management of epilepsy, sterilization and masturbation. In Africa and the Middle East, FGM is thought to have taken root centuries ago. Yet even in those regions, there are some countries where the practice began relatively recently (17).

## **2.2 Magnitude of Female Genital Mutilation**

An estimated 100 million to 140 million girls and women worldwide have undergone female genital mutilation (FGM) and more than 3 million girls are at risk for cutting each year on the African continent alone (11). Even if there are declining signs of performing this procedure, study conducted in Kenya showed that there were situations where the community are practicing it in secret not to be punished by the government (18, 19).

Most of the time, decision whether to undertake the procedure or not is passed by the parents (mother and father) but, sometimes the girls themselves initiate the idea under the pressure of their peer (19).

Data from the 2005 Demographic and Health Survey (DHS) indicate that 74 per cent of women aged 15-49 have undergone some form of FGM in Ethiopia (13).

Data by region show that FGM prevalence is lower among women in the Gambela (27 per cent) and Tigray (29%) regions, while it reaches 97 per cent in the Somali region and 92 per cent in the Afar region and 87.2% in Oromia region (13). The prevalence of FGM in 2005 has declined from what was reported in the previous DHS conducted in 2000, from 80% to 74%. The comparison of prevalence rates across age groups using the 2005 figures also confirms this trend: 62% of women aged 15-19 have been cut compared to 81 per cent of women aged 45-49. The comparison of data for 2000 and 2005 by region indicates that the rate of decline has not been consistent throughout the country (17).

According to base line survey (BLS) and Follow up Survey (FUS) conducted by EGLDAM the prevalence of FGM in Kelem Wollega zone was 89.4% and 61.3% respectively (20). A study conducted in ten countries of West Africa showed that prevalence of FGM ranged from 94% in Sierra Leone to 2.2% in Niger (21). According to the study conducted in Egypt the prevalence of FGM was 50.3% in school girls (22). But it varies among governmental and private schools and their residence; generally it was higher among rural students who are attending governmental school (23). The same study showed that the prevalence increases with their grade 33.5%, 54.3%, and 56.8% in primary, secondary, and preparatory schools respectively and the mean age of FGM is  $10.1 \pm 2.3$ .

A retrospective cohort study conducted in Ghana showed overall prevalence of FGM was 29%. The same study showed a highest prevalence of 61.5% in the age group forty years and above and the lowest prevalence of 14.4% in the teenage mothers which showed a declining trend in the country (23). According to the finding of a community based cross-

sectional study conducted in Ambo zone the prevalence of FGM was 96.2% (24). The other study conducted in primary school girls in Addis Ababa showed the prevalence of 25.8% which also varies among different schools giving it was highest in governmental (36.6%) (25). The recently conducted study in high school students in south Ethiopia showed 82.2% prevalence of FGM, which is higher than the national prevalence from EDHS of 2005 (26).

### **2.3 Perception towards Female Genital Mutilation**

There are different perceptions towards FGM from different segments of the communities like that uncircumcised girls are unclean, promiscuous, and perceived as child in the community. In addition to this, there are different myths in the community like if a girl is not circumcised, her clitoris will grow to an extent of dangling between her legs; uncircumcised girl cannot get pregnant; if a traditional birth attendant assist an uncircumcised girl/woman in delivery she stands to lose her eye sight; a man who marries uncircumcised girl/woman is likely to die, and the like (19). Even if the reason for FGM varies from country to country the following are the common ones (4, 27-29):

- Preservation of virginity and ensuring fidelity
- Identification with cultural heritage
- To mark the transition of girls into womanhood
- Social integration and acceptance, particularly for marriage and family honour
- Hygiene and cleanliness
- Enhancing fertility and infant survival
- Increasing sexual pleasure for the male (the husband)
- Religion.

In some communities FGM is as identity or marker which differentiates insiders from outsiders (30). In other communities it is a strong symbol of culture and identity (31). Some of them believe that tradition is tradition and you can't modify it and because of this reason they continue doing FGM (31). People also perceive that FGM enhances girls' marriage prospects as most of wives in developing countries depend on their husbands economically (32).

FGM is generally performed on girls between ages 4 and 12, although it is practiced in some cultures as early as a few days after birth or as late as just prior to marriage (11, 33).

This age of excision varies also in Ethiopia from one ethnic group to the other; for example in Amhara and Tigray they perform it before the infants celebrate their first birth day but in other regions like Oromia, Somali, and Afar it may delay until just prior to their marriage (34).

The season during which this practice takes place varies from place to place and has its own reasons. For example a research conducted in the rural Guinea showed that most of the practices takes place from November to January because during this time crops for the ceremony is available at low cost, and the weather is cool and favourable for the wound to heal (33). Most of the time traditional excisors carry out the procedure, but recently a discouraging trend has emerged in some countries where medical professionals are increasingly performing the procedure (35). FGM/C poses serious physical and mental health risks for women and young girls, especially for women who have undergone extreme forms of the procedure (11).

According to a 2006 WHO study, FGM can be linked to increased complications in childbirth and even maternal deaths. Other side effects include severe pain, haemorrhage, tetanus, infection, infertility, cysts and abscesses, urinary incontinence, and psychological and sexual problems. Moreover, during this era of HIV/AIDS, female genital mutilation is predisposing girls to the risk of acquiring the infection because of using a single razor for more than one individuals in the case of performing the procedure for many girls or women at a time (36). On the other hand, according to the study conducted in six African countries (Burkina Faso, Ghana, Kenya, Nigeria, Senegal and the Sudan), a girl of fifteen years who undergoes FGM will lose nearly one fourth of a year of life (37).

#### **2.4 Factors associated with Female Genital Mutilation**

There are different factors which are associated with increased prevalence of FGM like parental educational status, parental income, and the like (25, 38).

According to the study conducted in fifteen countries Mothers' level of educational attainment, moreover, appears to be a significant determinant of the FGM status of daughters (39). It is generally observed that women with higher education are less likely to have circumcised daughters than women with lower or no formal education (those with no formal education) are about 1.5 times to have circumcised daughters (39, 40). The same study showed that there is significant association between female genital mutilation and familial wealth (39).

According to EDHS 2005 education, residence, religion, and knowledge of HIV transmission are independently associated with female genital cutting (13).

The other study conducted in Ethiopia showed that the likelihood of girls being circumcised was 0.12 times lower in primary school completed fathers (OR=0.12, 95% CI=0.06 to 0.27) and 0.26 times lower in secondary school completed fathers (OR=0.26, 95% CI=0.12 to 0.56) than illiterate fathers. As the same time, it was 0.18 times lower in girls with primary school completed mothers than illiterate mothers (OR=0.18, 95% CI=0.07 to 0.49) (25).

According to a study conducted in Jimma zone, south west Ethiopia, residence was highly associated with perceived continuation FGM showing that those who reside in rural areas support the persistence of the procedure (41).

A high school based study conducted in Egypt showed that there is significant association between residence and FGM & age and FGM (36, 42). But the relation between religion and FGM is not consistent and it varies from country to country. Ethnicity is the prominent factor which affects the FGM status of women and girls as well as the cultural values given to female genital cutting has slight difference among countries and even within the same country (39, 40, 43).

**(See the conceptual frame work at annex I).**

### **3. Objectives of the study**

#### **General objective**

- To assess the status and associated factors of FGM and perception towards it among secondary and preparatory school students in Dale Wabera wereda, Oromia National Regional State, January 2012.

#### **Specific objectives**

- To estimate magnitude of FGM among high school and preparatory students in Dale Wabera Woreda, January 2012.
- To identify associated factors of female genital mutilation among high school and preparatory students in Dale Wabera Woreda, January 2012.
- To assess Communities perception towards FGM in Dale Wabera Woreda, January 2012.

## **4. Methodology**

### **4.1. Study area and period**

The study was conducted in Dale Wabera woreda of Kelem Wollega zone, Oromia regional state. The district town is Kake which is found at about 600km west of Addis Ababa. The Woreda has a total population of 107, 915 (44) and its economy entirely depends on agriculture. Female genital mutilation is one of the harmful traditional practices widely known in the area and still being practiced universally. There are two high schools and one preparatory school in the woreda and in the 2011/2012 academic year a total number of students in these schools was 3212 among which 1418 (44.15%) of them were females. This study was conducted during January 2012.

### **4.2. Study Design**

A descriptive cross-sectional study was conducted to determine the magnitude and associated factors of FGM among high school and preparatory school students, which is the quantitative part of the study, and the perception of the community towards female genital mutilation was assessed by the qualitative part which included focus group discussion (FGD) and in-depth inter-view.

### **4.3. Source population**

The source population were all female students who were enrolled in the two high schools and one preparatory school in the Dale wabera woreda in the academic year of 2011/2012.

### **4.4. Study population**

The study population were female students in the randomly selected sections of the three schools during the academic year of the study period.

#### **4.4.1. Inclusion criteria**

Those regular female students from 9-12 grades registered in the academic year of 2011/2012.

#### 4.4.2. Exclusion criteria

Female students joined the schools from the other regions of the country in the last two years, since they might have relatively different back grounds from those who were living in the area for longer period of time.

#### 4.5. Sample size determination

The sample size for the quantitative study was estimated using the single population proportion formula with the assumption of 3% margin of error (d), 95% confidence level ( $z_{\alpha/2} = 1.96$ ) and 87% proportion of FGM of Oromia region taken from Ethiopian DHS 2005 (13) which is the prevalence of FGM in the community since I didn't come across high school based study of the practice in the region. By using the formula

$$[n = \frac{(Z_{\alpha/2})^2 \times p(1-p)}{d^2}]$$

And using a design effect of **1.5**, the calculated sample size with 10% contingency for non-response was **798**.

For the qualitative part, three FGD and six in-depth interviews were conducted among the selected individuals from the community.

Each focus group was having a total number of six individuals.

#### 4.6. Sampling procedures

A multi stage sampling procedure was applied to select sample of female students in the schools (stratification in to grades and simple random sampling to select sections and again simple random sampling to select respondents in respective sections).

There are two secondary and one preparatory schools in the wereda namely, Dereje Keba high school, Chanka high school and Kake preparatory school. The calculated sample size was proportionally allocated to each school based on the student population they have.

First, each school was stratified by grades (9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup>). Proportional allocation of sample was done to the respective grades, Secondly, sections were randomly selected from each grade and Study subjects were selected by simple random sampling technique (**see annex II**).

#### **4.7. Data collection procedures**

**Instrument:** Self administered structured questionnaire which was adopted from DHS and MICS were used to collect data on socio-demographic, status of FGM and other important data related to the objective of the study. Pre-test was done before the actual data collection started on 30 (4%) female students in the Kebe high school which is found in the Gawo Kebe wereda.

Semi structured guiding questions for FGD and in-depth interviews were prepared to assess communities' perception towards female genital mutilation.

**Data collection:** Data collection facilitators were grade ten and twelve completed individuals and training was given by the principal investigator for two days specially how to create conducive environment for the respondents during data collection, how to give clarity, if there is any inconvenience.

Following an orientation, respondents filled the questionnaire in private by arranging their seat far apart from one another and not allowing their teachers to enter the room.

For FGDs, the principal investigator moderated the discussion by presenting guiding question and there was an assistant moderator who was taking note from the discussion.

#### **4.8. Data quality management**

Standard questionnaire were adopted and modified according to the variables included in the study and pre-test was conducted to see, if there was ambiguous question and appropriate corrections were given before the actual data collection time.

Data collectors were trained and strict supervision was there during data collection.

Data were double entered to check the consistency. During FGD of the qualitative part each discussion was held in an environment which was conducive to enhance the participation of each member and extracted the real information they feel. Also each member of the FGD was given equal chances to express his/her idea to get a representative perception of the community.

#### **4.9. Data analysis**

Data were entered using epi data 3.1 and exported to spss version 16 for further analysis. Data cleaning took place, during data entry by use of double entry and after data entry by simple frequency and cross tabulation and their consistency was checked. After data cleaning completed it was exported to SPSS version 16 for analysis. Data were analysed through Univariate for frequencies, and percentage; bivariate analysis to see association

between dependent and independent variables and logistic regression to see the independent effect of selected variables on the status of FGM using odds ratio.

For the qualitative data analysis, the tape-recorded data were transcribed carefully in to Afaan Oromo and arranged with the written notes taken at the time of discussion. The information was translated in to English. Open code soft ware was used to store data and assign codes and categories. Thematic or content analysis was used in order to describe the exploratory ideas obtained from the FGD. Through this process, the information was reduced in to manageable themes. Finally, it was triangulated with the quantitative findings in order to provide comprehensive and complete ideas about perception towards FGM.

#### **4.10. Variables**

##### **4.10.1. Dependent variable**

- ✓ prevalence of Female Genital Mutilation

##### **4.10.2. Independent variables**

- ✓ **Socio-demographic variables**

Age

Educational status

Residence

Religion

Parents' educational status

Ethnicity

- ✓ **knowledge about FGM**

- ✓ **Socio-cultural reasons for FGM.**

#### **4.11. Variable measurement**

Occurrence of FGM was measured by two responses (**Yes** for those who have undergone partial or total removal of external female genitalia and **No** for those who didn't).

**Grade:** there were four options to measure this variable namely (9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup>).

**Religion:** there were four options to measure religion, namely protestant, Muslim, orthodox, and others.

**Ethnicity:** there were two options for ethnicity variable namely Oromo and Non-Oromo.

**Residence:** there were two options to measure this variable namely urban and rural.

**Perceived family income level:** there were three alternatives to measure perceived family income level (low income, medium income and high income).

#### **4.12. Operational definitions**

**Female genital mutilation/cutting:** Is partial or total removal of the external female genitalia or other injury to the female genital organ whether for cultural or non-therapeutic reasons (1, 2).

**Clitoridectomy:** Partial or total removal of the clitoris, with or without excision of part or all of prepuce (1, 2).

**Infibulations:** Narrowing the vaginal opening through the creation of a covering seal by cutting and repositioning the labia minora and/or the labia majora, and with or without removal of the clitoris (1, 2)

**Defibulation:** Defibulation is a surgical procedure wherein a vertical incision is made on the scar to expose the introitus and create new labia majora.

#### **4.13. Ethical considerations**

Ethical clearance was obtained from Research and Ethics Committee (REC) of AAU school of public health. Permission was warranted from Dale wabara education bureau and the respective school-heads. All the study participants were informed about the purpose of the study and the right to refuse filling the questionnaire at any stage when they want to do so and were requested for their willing prior to the distribution of the questionnaire. Effort was done to overcome ethical concerns of the participants due to the sensitivity of the issue under study by careful designing and structuring the questionnaire; clear explanation about the purpose and usefulness of the study and by excluding names and other identifying numbers from the questionnaire in order to assure confidentiality of information.

#### **4.14. Dissemination of the results**

The result of the study will be submitted to the School of public health as partial fulfilment of the masters of public health and Dale Wabera district health Bureau. It will also be available for governmental and nongovernmental organizations that are doing on the area of eliminating FGM. Publication and presentation for professional associations will be considered.

## **5. RESULTS**

### **5.1. Quantitative findings**

Data were collected from the two high schools and one preparatory school found in the woreda and based on the total number of their students 54.5% (421) of the study participants were from Dereje Kebe high school, 21.6% (166) from Chanka high school and about 23.9% (184) of them were from Kake preparatory school. The total response rate was 96.4% and incomplete questionnaires, especially on dependent variable, were not included in the analysis.

#### **5.1.1. Socio-demographic characteristics**

More than half of the participants (54.2%) were seventeen years old and above with a mean and SD of  $16.93 \pm 1.32$ . Three hundred forty two of the study participants, 44.5% (342) were from grade nine, 31.6% (243) were grade ten, and 14.4% (111) were from grade eleven. More than two third of the study participants (77.1%) were from rural area and almost all of the study participants (97.9%) were Oromo, while protestant was the dominant religion in the area (71.3%) (**Table 1**).

**Table 1. Socio-demographic characteristics of high school and preparatory female students of Dale Wabera wereda, January 2012, n=769**

Variables	number	Percent
Age		
<17	352	45.8
≥17	417	54.2
Mean ± SD	16.93 ± 1.32	
Grade		
9 <sup>th</sup>	342	44.5
10 <sup>th</sup>	243	31.6
11 <sup>th</sup>	111	14.4
12 <sup>th</sup>	73	9.5
Residence		
Rural	593	77.1
Urban	176	22.9
Religion		
Protestant	548	71.3
Orthodox	130	16.9
Muslim	91	11.8
Ethnicity		
Oromo	753	97.9
Non-Oromo	16	2.1

### **5.1.2. Socio-demographic characteristics of the parents**

As shown in table two below, about 30% of the fathers of the study participants can't read and write, while 43.6% and 21.5% of them have attended primary and secondary level education respectively. About half of the mothers were illiterate and 38.4% of them have attended primary education. Whereas, 9.5% and 1.6% of the mothers attended secondary and college/university education, respectively.

More than eighty percent of the fathers were farmers and the rest were merchant and government employee. More than half of the mothers share the same job (farmer) with the majority of the fathers. While 35.1% of the mothers were house wives and the rest 7.5% and 4% were merchant and government employee respectively. Based on perceived family income, about half of the study participants were from low income parents.

Table 2. Background characteristics of the parents of the preparatory and high school female students in Dale Wabera woreda, January 2012, n=769

Characteristics	number	Percent
<b>Fathers education</b>		
Illiterate	230	29.9
Primary	335	43.6
Secondary	165	21.5
College	39	5.0
<b>Mothers education</b>		
Illiterate	389	50.6
Primary	295	38.4
Secondary	73	9.5
College	12	1.5
<b>Father occupation</b>		
Farmer	624	81.2
Gv't employee	74	9.6
Merchant	69	9.1
Other	1	0.1
<b>Mothers' occupation</b>		
Farmer	410	53.3
Hose wife	270	35.1
Merchant	58	7.5
Gov't employee	31	4.1
<b>Perceived family income</b>		
Low	389	50.6
Medium	340	44.2
High	40	5.2

### **5.1.3 Knowledge about FGM and perception towards it among the study subjects.**

Almost all of the study participants (99.6%) have heard about the Female Genital Mutilation. More than three fourth (77.8%) of the study participants have underwent FGM. Among those underwent the practice, 48.2% of them were cut during the summer vacation whereas 47.5% and 4.3% of them were cut during the inter-semester vacation and by dropping school, respectively.

Among the victim of the procedure 31.8% of them reported that some flesh was removed out while 32.4% of them were said that it was just nicked. The rest of them reported that they don't know whether any flesh was removed out or just nicked. According to the information 0.7% of the procedure includes sewing of the vagina together. From the study subjects who underwent the procedure, about 64% of them remembered the age at which they were cut. Accordingly, the average age of the procedure was  $12.95 \pm 2.223$  years.

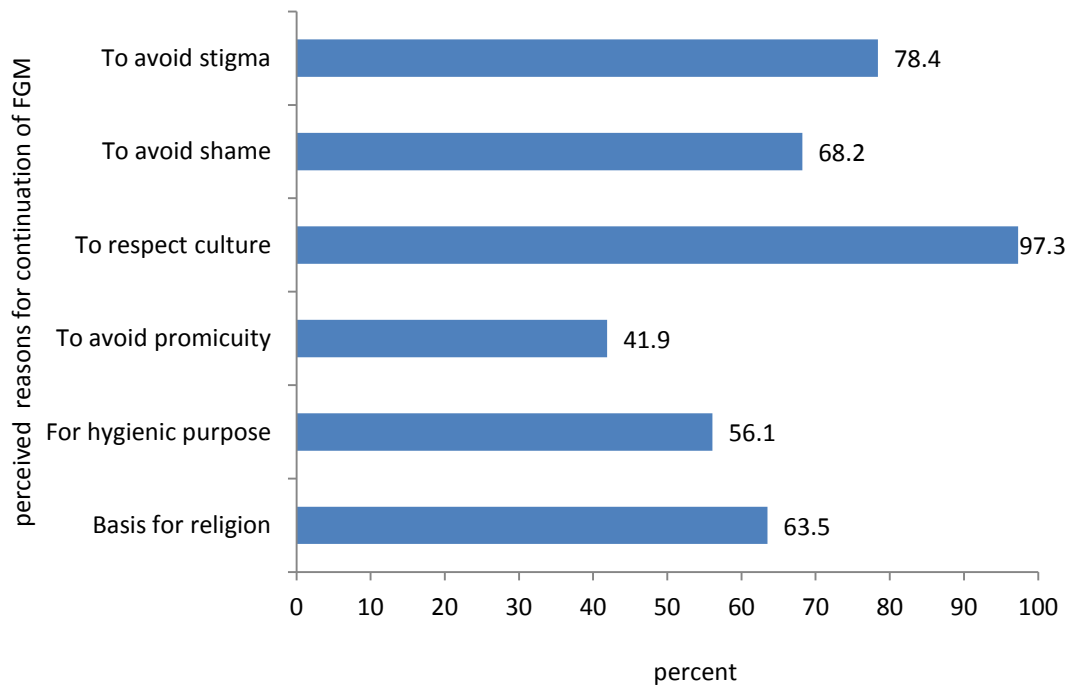
Ninety five percent (95%) of the practice was done by traditional circumcisers and the rest was done by health professionals. Among 704 (91.5%) of the study subjects who reported that they have one or more sister(s), 63.6% of the sisters have FGM. From the total number of study subjects who reported mutilation and having sister (s), 56.4% of them have been mutilated with one or more of their sister (s) at the same time. The majority of procedure (64%) was done during night time which was followed by early morning (27.5%) and only 8.5% of it was performed at day time. About 24% of the study participants reported that FGM is required by their religion. The majority of the respondents (77.7%) agreed with the idea of stopping the practice while 22.3% of them supported to perform FGM in the future.

**Table 3. Characteristics of Female Genital Mutilation among the preparatory and high school female students in Dale Wabera woreda, January 2012**

Characteristics	number	Percent
Age at circumcision (n=397)		
5-9	18	4.5
10-15	345	86.9
>15	34	8.6
circumciser (n=598)		
Traditional	568	95.0
Health professional	30	5.0
Opinion on FGM (n=665)		
Continued	148	22.3
Stopped	517	77.7

### 5.1.3.1 Proposed reasons for supporting the continuation of FGM/ or rejecting it.

Among the total study participants who supported the continuation of FGM, majority of them (97.3%) responded that it is a respect for culture and about 78% of them said that the practice avoids stigmatization in the community. Others responded that they support the practice for that it avoids shame (68.2%), it is required by religion (63.5%), for hygiene (56.1%), avoidance of promiscuity (41.9%) and other reasons (figure 1).



**Figure 1:** Suggested reasons for favouring continuation of FGM among those support the practice in Dale Wabera woreda high school and preparatory female students, January 2012 (n=148)

From those who were against the continuation of the FGM, 90.5% of them agreed that it is harmful tradition and 70.5% of the respondents believe that it is disability for females. While about 59% of them said that it has no religious support and 49% answered that it is a painful and unhealthy procedure (figure 2).

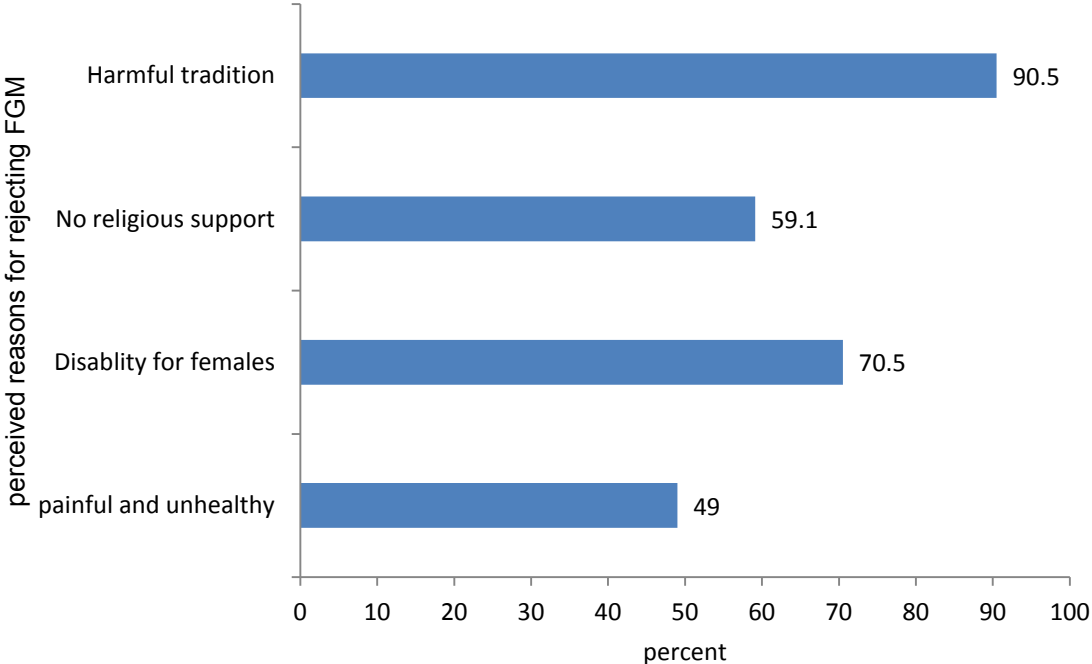


Figure 2: supposed reasons for rejection of FGM among female students against the practice in Dale Wabera woreda, January 2012 (n=517)

The following figure indicates some of the proposed interventions which are important to eradicate the practice of FGM. Most of the study participants (80.1%) suggested that education through health institution is preferable and more than three fourth of them said that community participation is the key solution for eradication of FGM (figure 3).

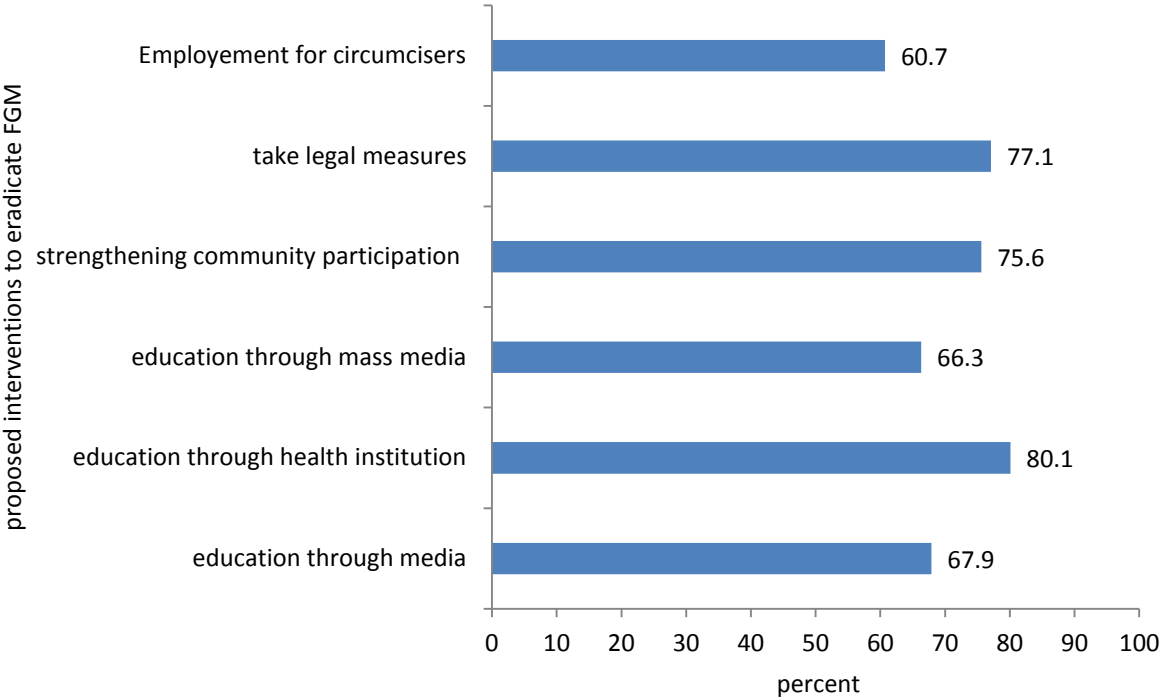


Figure 3: proposed interventions to eradicate FGM among female students against the practice in Dale Wabera woreda, January 2012 (n=517)

**5.1.4 Prevalence of FGM among the high school and preparatory female students, Dale Wabera, January 2012.**

The overall prevalence of FGM among the study participants was 77.8%; 95% CI (74.9%, 80.7%). As it is shown below the prevalence increased from 72.5%; 95% CI (69.4%, 75.6%) in grade 9 to 89%; 95% CI (87.9%, 90.1%) in grade twelve (see fig. 4).

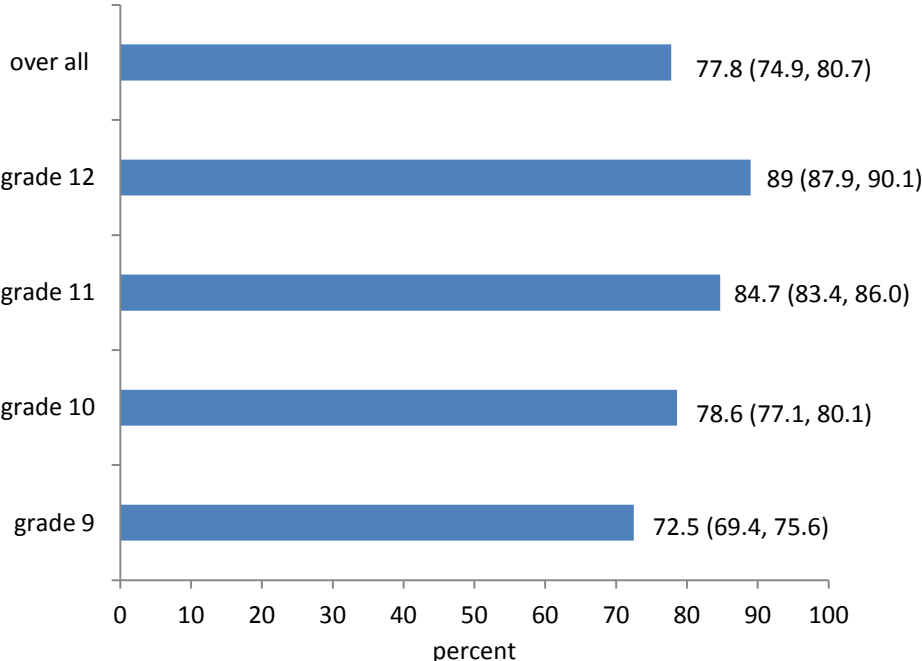


Figure 4: Prevalence of FGM in high school and preparatory female students in Dale Wabera woreda, January 2012

### **5.1.5. Socio-demographic correlates of FGM**

As we can see from table 4 below, among the socio-demographic characteristics, having higher age, rural residence, Muslim religion, and 11 & 12 grades were significantly associated with FGM, while ethnicity of the study participants was not significantly associated with the practice.

Accordingly, the odds of FGM was higher in grades 11 & 12 students compared with grade 9 students, (COR= 2.1; 95% CI: (1.19, 3.70)) & [COR= 3.08; 95%CI (1.42, 6.66)].

The odds of Female Genital cutting was also higher among rural dwellers compared to those from urban area, [COR= 1.74; 95% CI: (1.19, 2.54)], and the likelihood of practicing FGM was higher among Muslims compared to Orthodox Christians, [COR =2.21; 95% CI: (1.09, 4.47)].

Table 4. Association of socio-demographic status with FGM in high school and preparatory students in Dale Wabera woreda, January 2012

variables	Number	FGM (%)	COR (95% CI)
<b>Age</b>			
<17	352	254 (72.2)	1
≥17	417	344 (82.5)	1.82 (1.29, 2.56)*
<b>Grade</b>			
9 <sup>th</sup>	342	248 (72.5)	1
10 <sup>th</sup>	243	191 (78.6)	1.39 (0.95, 2.10)
11 <sup>th</sup>	111	94 (84.7)	2.10 (1.19, 3.70)*
12 <sup>th</sup>	73	65 (89.0)	3.08 (1.42, 6.66)*
<b>Residence</b>			
Urban	176	123 (69.9)	1
Rural	593	475 (80.1)	1.74 (1.19, 2.54)*
<b>Religion</b>			
Orthodox	130	95 (73.1)	1
protestant	548	425 (77.6)	1.27 (0.82, 1.97)
Muslim	91	78 (85.7)	2.21 (1.09, 4.47)*
<b>Ethnicity</b>			
Oromo	753	586 (77.8)	1.20 (0.37, 3.67)
Non-Oromo	16	12 (75.0)	1

\*= significant at pv 0.05

### **5.1.6 Parental factors associated with FGM**

As it is indicated in table 5 below, in the crude analysis, educationally parents' lower education, maternal occupation house wife, farming and being merchant, having perceived lower household income were associated with higher level of practicing FGM compared to their references. Accordingly, the odds of practicing FGM was higher among female students whose mothers were illiterate and attained primary education compared to students whose mothers were college graduate [COR 4.05; 95% CI (1.27, 12.91)] & [COR 3.40; 95% CI (1.06, 10.90)] respectively. Similarly the odds of the practice was higher among female students with illiterate and primary education fathers compared to students with college graduate fathers [COR 2.72; 95% CI (1.32, 5.61)] and [COR 2.37; 95% CI (1.18, 4.75)], respectively.

The other maternal character significantly associated with the FGM status of the female students was occupation. Accordingly, the odds of the practice was higher among students whose mothers were house wife, farmer, and merchant [COR 3.22; 95% CI (1.50, 6.93)], [COR 2.97; 95% CI (1.41, 6.26)] & [COR 2.85; 95% CI (1.12, 7.29)], respectively.

**Table 5. Association of FGM with the parents' background among high school and preparatory female students in Dale Wabera woreda, January 2012**

characteristic	Num ber	FGM (%)	COR (95% CI)
<b>Fathers education</b>			
Illiterate	230	187 (81.3)	2.72 (1.32, 5.61)*
Primary	335	265 (79.1)	2.37 (1.18, 4.75)*
Secondary	165	122 (73.9)	1.77 (0.85, 3.69)
College	39	24 (61.5)	1
<b>Mothers education</b>			
Illiterate	389	312 (80.2)	4.05 (1.27, 12.91)*
Primary	295	228 (77.3)	3.40 (1.06, 10.90)*
Secondary	73	52 (71.2)	2.48 (0.72, 8.56)
College	12	6 (50.0)	1
<b>Father occupation</b>			
Farmer	624	497 (79.6)	2.38 (1.43, 3.96)*
Merchant	69	53 (76.8)	2.02 (0.97, 4.19)
Gov't employee	74	46 (62.2)	1
<b>Mothers' occupation</b>			
House wife	270	215 (79.6)	3.22 (1.50, 6.93)*
Farmer	410	321 (78.3)	2.97 (1.41, 6.26)*
Merchant	58	45 (77.6)	2.85 (1.12, 7.29)*
Govt. employee	31	17 (54.8)	1
<b>Perceived Family income</b>			
Low	389	315 (81.0)	2.29 (1.14, 4.61)*
Medium	340	257 (75.6)	1.67 (0.83, 3.34)
High	40	26 (65.0)	1

\*= significant at pv 0.05

### **5.1.7 Associated Factors of Female Genital Mutilation**

From those factors significantly associated with dependent variable (age, grade, residence, religion, father education, mother education, father occupation, mother occupation, & perceived monthly income) during crude analysis, four of them (age, grade, residence, and mother occupation) remained independently associated with the dependent variable on multivariate analysis.

Among the age groups, those who  $\geq 17$  years were at higher odds of practicing FGM compared to the other age group [AOR 1.8; 95% CI (1.28, 2.6)]. The odds of FGM was higher in grades eleven and twelve students compared to grade nine [AOR=2.98, 95% CI (1.45, 6.12)] and [AOR=6.52, 95%CI (1.85, 22.94)], respectively.

Residence was one of the factors independently associated with magnitude of FGM giving that the chance of being mutilated was higher in students from rural area compared to those from urban residents [AOR=1.6, 95% CI (1.01, 2.52)]. The other factor independently associated with FGM was mother occupation. The odds of practicing FGM was higher among female students whose mothers were house wife and merchant compared to those with government employee mothers after adjusting for age, grade, and residence [AOR 2.38; 95% CI (1.07, 5.29)] and [AOR 2.72; 95% CI (1.04, 7.12)], respectively.

**Table 6. The association of Female genital mutilation with selected variables in Dale Wabera woreda, January 2012**

variable	COR (95% CI)	AOR (95% CI)
<b>Age</b>		
<17	1	1
≥17	1.80 (1.29, 3.56)	1.80 (1.28, 2.60)*
<b>Grade</b>		
9 <sup>th</sup>	1	1
10 <sup>th</sup>	1.39 (0.95, 2.05)	1.41 (0.88, 2.26)
11 <sup>th</sup>	2.10 (1.19, 3.70)	2.98 (1.45, 6.12)*
12 <sup>th</sup>	3.08 (1.42, 6.66)	6.52 (1.85, 22.94)*
<b>Residence</b>		
Urban	1	1
Rural	1.74 (1.19, 2.54)	1.60 (1.01, 2.52)*
<b>Religion</b>		
Orthodox	1	1
Protestant	1.27 (0.82, 1.97)	1.36 (0.78, 2.37)
Muslim	2.21 (1.09, 4.47)	1.26 (0.50, 3.19)
<b>Father education</b>		
Illiterate	2.72 (1.32, 5.61)	1.97 (0.89, 4.38)
Primary	2.37 (1.18, 4.75)	1.71 (0.79, 3.65)
Secondary	1.77 (0.85, 3.69)	1.41 (0.65, 3.05)
College	1	1
<b>Mothers education</b>		
Illiterate	4.05 (1.27, 12.91)	2.96 (0.87, 10.11)
Primary	3.40 (1.06, 10.90)	2.50 (0.73, 8.49)
Secondary	2.48 (0.72, 8.56)	2.21 (0.61, 7.96)
College	1	1
<b>Fathers' occupation</b>		
Farmer	2.38 (1.43, 3.96)	1.53 (0.68, 3.43)
Merchant	2.02 (0.97, 4.19)	1.56 (0.61, 3.99)
Govt. employee	1	1
<b>Mothers occupation</b>		
House wife	3.22 (1.50, 6.93)	2.38 (1.07, 5.29)*
Farmer	2.97 (1.41, 6.26)	1.95 (0.88, 4.33)
Merchant	2.85 (1.12, 7.29)	2.72 (1.03, 7.12)*
Govt employee	1	1
<b>Perceived family income</b>		
Low	2.29 (1.14, 4.61)	1.94 (0.92, 4.09)
Medium	1.67 (0.83, 3.34)	1.56 (0.74, 3.30)
High	1	1

*Adjusted for, age, grade, residence, and religion.*

\*= significant at pv 0.05

## 5.2 Qualitative results

All of the participants of FGD know the Female Genital Mutilation and most of them supported the practice. The participants of the FGD supported the practice for the following reasons (see table 7 below).

### Culture

Most of the participants who supported FGM raised the word —culture” and mentioned it as one and the major reason why they practice it.

A 58 years old mother said,

*“...It is our culture; our ancestors and grandmothers were practicing it, our mothers had celebrated it, we were circumcised and also we are circumcising our daughters, therefore as to me it is something to be done”.*

Another old man, who was talking nervously said, *“We will keep our culture as we accept from our ancestors but those of you who consider yourself modernized can allow your sisters and daughters left uncircumcised”.*

### Shame

Along with the culture, most participants of the FGD also agreed on the issue of shame if not circumcised. As they illustrated, it is impossible to live with peer groups specifically and with the community in large if not circumcised beyond certain age.

A 90 years old man, who is known for his community advice said,

*“...It is shame to be left uncircumcised; she who left uncircumcised will be laughing stone in the community, not only her but also her families can't participate in the community events if they don't do it”.*

### Stigmatization

Stigmatization was one of the reasons mentioned by most of the members of the FGDs to circumcise their daughters. As they mentioned, uncircumcised girls and women are highly segregated by their peer groups and even they are not allowed to participate in community celebration during wedding ceremonies and difficult for them on the way to market, school, and river as a result of insult from different segments of the community.

A 45 years old mother said, *“...recently, before about a month, I know a girl who came back from grade nine and threw her books and exercise books and said to her families „I*

*will never go back to school unless I am circumcised“; due to insult she faced from her classmates who were circumcised”.*

Another circumcised girl, who was one of the participant of the interview said, *“...even if we don't want to be circumcised, traditionally we don't have the right to say no. The other consequences of being left uncut are stigmatization and insult which come from even girls and woman who are circumcised themselves, so how could this practice be avoided unless there is attitudinal change in our community”.*

The practice (FGM) is widely being done by inexperienced circumcisers and more than two girls are being cut at the same time under one roof, which has an additional burden like transmission of the pandemic disease (HIV/AIDS) beside to the severe complications of FGM which shows a multiple burden of the procedure.

One circumciser said, *“...During the derg regime I started FGM on my own daughter after the appointed circumciser was absent by being busy”*

And the other circumciser said, *“...At one night I circumcised 12 girls under one roof but I did it by different razor blades”.*

None of the FGD and in-depth interview participants mentioned religion as a reason to practice FGM.

Even one of the FGD participant said, *“...I have attended a seminar which was organised by EECMY and during the seminar we were informed that FGM is not recommended by Holy Bible, but none of us applied it because of the fear of challenge which would face us from the community”.*

### **Government policy and FGM**

Almost all of the participants of the FGDs and in-depth interviews know that there is government policy against the procedure. But most of them complained that the policy is not this much strict and till now they didn't see anybody who was penalized because of doing it on his/her daughter(s). Also they mentioned that most of the practices are currently being done during the night time to hide oneself from the punishment which may face them from government body.

One of the participant of the FGD said, *“...for information we have heard about five years ago that FGM is illegal but there is no this much strict follow up from government bodies, and even those who are government bodies and health professionals are doing it. The only thing changed is the avoidance of the ceremony during the procedure and the shift of the time during which it takes place to night time”.*

**Table 7: Theme, codes, and categories of the FGDs result.**

Theme: FGM is practiced because of culture, shame, stigma, and control sexuality				
Category	culture	Avoids shame	Avoids stigmatization	Control sexuality
codes	Culture It is something to be done Devotion Respect marriage	Shame What will people say	Lack of confidence Peer insult Segregation Social acceptance	Prepares for marriage Makes her faithful for her husband To get husband

## 6. Discussion

As it was indicated from this study 77.8% (74.9%, 80.7%) of the students were undergone the procedure which is higher than the 2005 DHS country prevalence (74.3%) but lower than the Oromia regional prevalence (87.2%) (13), this lower prevalence in this study may be due to their age that in DHS 2005 those in age group of 15-49 were included and in this current study the maximum age was 23. The finding of this study is also lower than the finding of the base line survey which was 89.4% in Kelem Wollega, but higher than that of follow up survey which was 61.3% (20) in the same zone. It is also lower than the finding of the study conducted in Ambo zone which was 96.4%, which may be due to inclusion of higher age group (24-33) years in the former study (23). So if the age of the study participants increases this prevalence would be higher. The prevalence is lower than the finding of the study conducted in high school female students in south Ethiopia which was 82.2% (26) The possible explanation is the difference in age at which FGM is performed. The finding of this study is higher than the finding of the study conducted among high school students in Egypt which was 50.3% (22) . It is also much higher than that of primary school girls in Addis Ababa which was 25.8% (25, 26). This might be due to the difference in age of the study participants included and the other may be those of Addis Ababa were with more educated parents and has higher access to information.

This prevalence increases as the grade of the students increases from 9 through 12. This may be due to the fear of the family that once she started to live away from the parents she might be exposed to different situations and even she may marry without their consent and it is simply to avoid the probability to be left uncircumcised anyway. So, from this trend we can say that at the end of grade twelve almost all of them might be victim of FGM since the prevalence increases with their grade. This is similar to the study conducted in Egypt which showed that the prevalence increases with their grade (42).

Although there are governmental and nongovernmental organizations which are doing against FGM than any time, this prevalence is still very high. The Season for the practice of FGM may vary from place to place but for school students the common seasons are during summer and inter-semester vacations to have enough time for recovery (45). In this study it was also true that about 95% of the procedure was conducted during summer (July and August) and inter-semester (February) vacations. About 91% of the procedure was conducted during night time and early in the morning to hide themselves from

punishment which is similar to the situation in Kenya (19) and also in different parts of Ethiopia (46). The age at which FGM is performed on girls varies between countries and even from area to area within the same country. In most countries it is practiced on girls between four and twelve years but it can be done as early as before one year of age and in some areas it can be delayed up to just before their marriage (11, 24).

According to the research conducted in Egypt the average age of mutilation was  $10.1 \pm 2.3$  years (22), while the figure was  $2.9 \pm 0.65$  years from the study conducted in the primary school girls in Addis Ababa (25). The finding of this study showed that the average age of FGM is  $12.95 \pm 2.23$  years which is much higher than that of the study conducted in Addis Ababa and also slightly higher than the value from the Egypt. As it is confirmed by different studies this age varies based on the culture of the specific population (21). As the participants of FGD and in-depth interview said, even it was beyond this age before few years and still today those who didn't join school are being mutilated at older age when they are compared by their peer groups who are attending their school.

More than 95% of the procedure was done by traditional practitioners and the rest was done by health professionals. This finding agrees with results of most studies that FGM is mostly done by traditional practitioners (2).

As most of the traditional practitioners conduct the procedure in unhygienic setups, other than the inherent problems of the FGM, different types of infections including HIV/AIDS may follow the ritual practice. The five percent of the procedure was done by health workers. This figure is lower than the finding of the study conducted in primary school in Addis Ababa which was 22.6% (25). But whatever percent it is, this trend is unacceptable since it is a great obstacle to the eradication program of FGM as the community may consider that it is a saver since it is done by health professionals. But irrespective of who performed it, female genital mutilation is absolutely against human right and health of girls and women (35).

Among all the reasons given by the respondents favouring the continuation of FGM, "respect for culture" was the leading one that 97.3% of them mentioned it as underline cause for the persistence of the practice. Following cultural respect, stigmatization and the issue of shame were the other prominent reasons of supporting FGM. These reasons were also mentioned on the top of the other reasons during the FGD and in-depth interviews with the community. The members of FGD responded that it is part of the social norms and

any attempt to avoid this culture contradicts with societal norms and leads to isolation from the community. This is similar to the result of the study conducted in Nigeria which showed that socio-cultural factors are the major driven causes of FGM (43). The other reason mentioned during FGD for the continuation of the practice was that lack of ice breaker in the community i.e. the one who first avoid cutting of his/her daughter irrespective of all the challenges.

Educational level of the study participants were independently associated with the prevalence of FGM especially in those grades eleven and twelve students. The odds of the practice was about three times higher in grade eleven and about 6.5 times higher in grade twelve students when compared with grade nine female students. This finding should be cautiously interpreted because one could be confused with the idea of decreasing trend of FGM as a result of increased community awareness, but the reality may be those who are not undergone FGM this year are candidates for the coming year as the community is still highly in favour of its continuation which was revealed during FGD. This finding is in line with that of study conducted in Egypt and south Ethiopia which showed increased magnitude of the practice along with their grades (42).

The age of the study participants was the other variable independently associated with FGM that those seventeen years and above were with a higher odds of the practice but like that of the grades of the study participants, the association with the age needs cautious interpretation. This also agrees with the findings of other studies that the prevalence of FGM increased with the age of the participants (9, 26).

Even though it is marginal, residence of the study participants was the other factor independently associated to the practice of FGM as those who were from rural areas were at higher odds of the practice and this may be due to the discrepancy in access to information about harmful effects of FGM. This finding agrees with that of high school based study in Egypt and EDHS 2005 findings in which the residence of students was independently associated with the prevalence of FGM (13, 26, 42).

Mothers' occupation was the other factor significantly associated to FGM. Female students whose mothers were house wife and merchant were at higher odds of practicing FGM compared to those students whose mothers were government employee even though it had no significant association in previous researches with increased prevalence of FGM (26). This may be because of those mothers who were government employee had better

access to information about harmful effects of the practice when compared to house wife mothers who spent most of their time at home and merchants who are most of the time busy with their work. Although this study showed no association between magnitude of FGM and education of the parents, other studies showed the presence of significant association with parental educational status (13, 25, 26, 38, 42). This may be because of fear of the challenges they would face from the community even if they have information about harmful consequences of FGM.

## **7. Strengths and Limitations of the study**

### **Strengths**

- Self administered standard questionnaire was adopted from DHS and MICS and necessary modifications were done according to the objective of the study.
- The study used relatively large sample size and design effect considered.
- Quantitative findings were complemented with qualitative findings from the community which makes the study more detail.

### **Limitations**

- Since it is cross sectional study it lacks temporal relationship.
- Since the study is institution based it may not reflect the real prevalence in the community.

## **8. Conclusions and Recommendations**

### **8.1. Conclusions**

Currently most people assume that the prevalence of FGM is decreasing in most parts of the country, but this study showed that this figure is very high (77.8%) in the current study area (more than 3 out of four high school and preparatory girls are victim of this harmful practice).

Study participants with age  $\geq 17$ , grades 11 and 12, residing in rural area, and having house wife & merchant mothers' occupation were at higher odds of FGM.

Among perceived reasons mentioned for continuation of FGM by the students and the community, respect for culture, fear of shame and fear of stigma were at the top of the other reasons.

## **8.2. Recommendations**

- ❖ The governmental and nongovernmental organizations which are doing on FGM have to address especially remote areas and evidence based interventions should be given for those who are at risk of this harmful practice rather than focusing only on already known areas.
- ❖ Addressing those who are at higher risk especially rural areas by increasing their awareness about bad consequences of FGM through community based education and empowering women and girls.
- ❖ Increasing awareness of female students about harmful effects of FGM starting from primary schools since the prevalence increases with their grades.
- ❖ Convincing the community about dangerous consequences of FGM especially through influential people like religious and community leaders.
- ❖ It would be better if a community based study is conducted to have a real prevalence in the community since high school girls may not represent the whole women and girls in the woreda.

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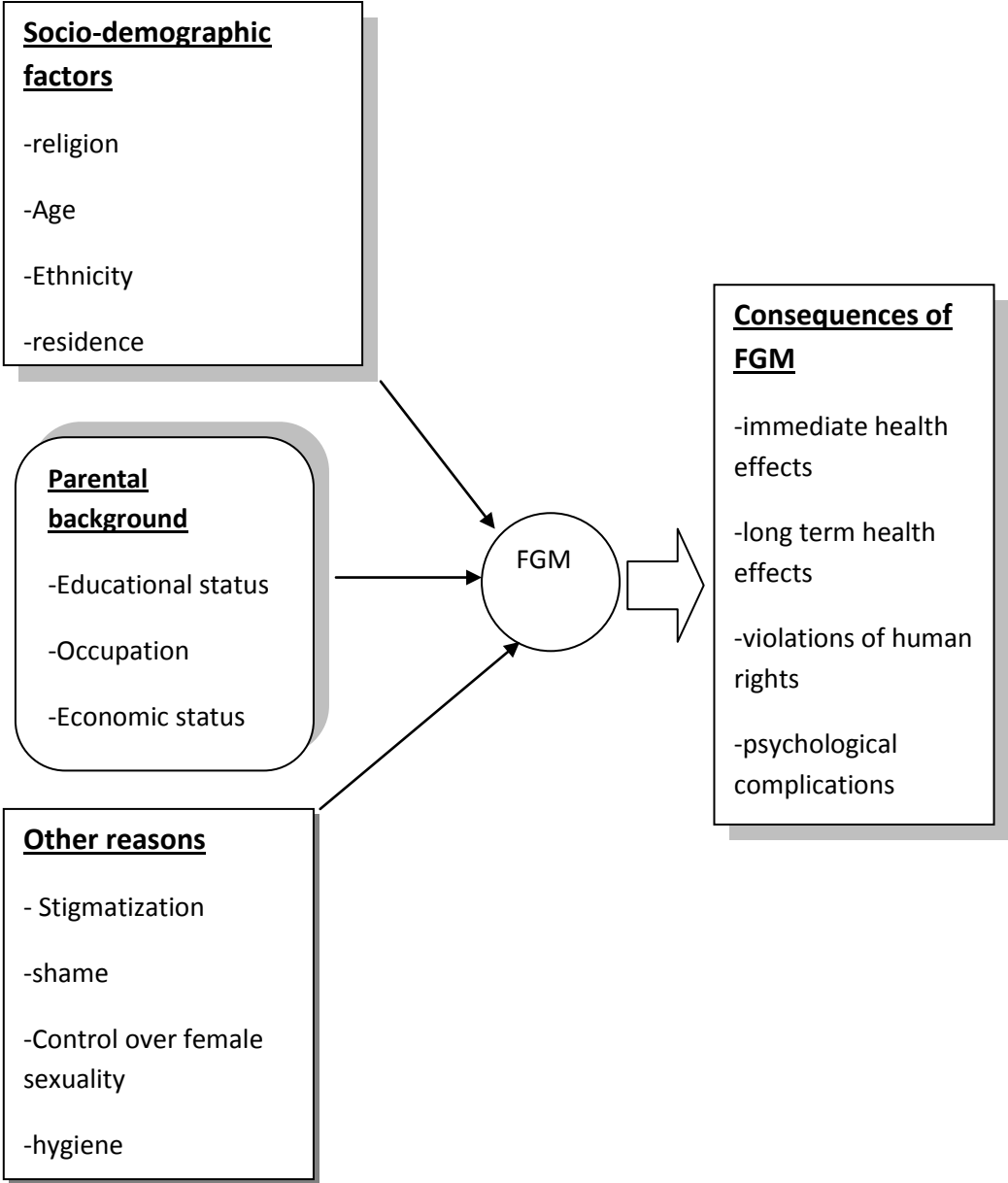
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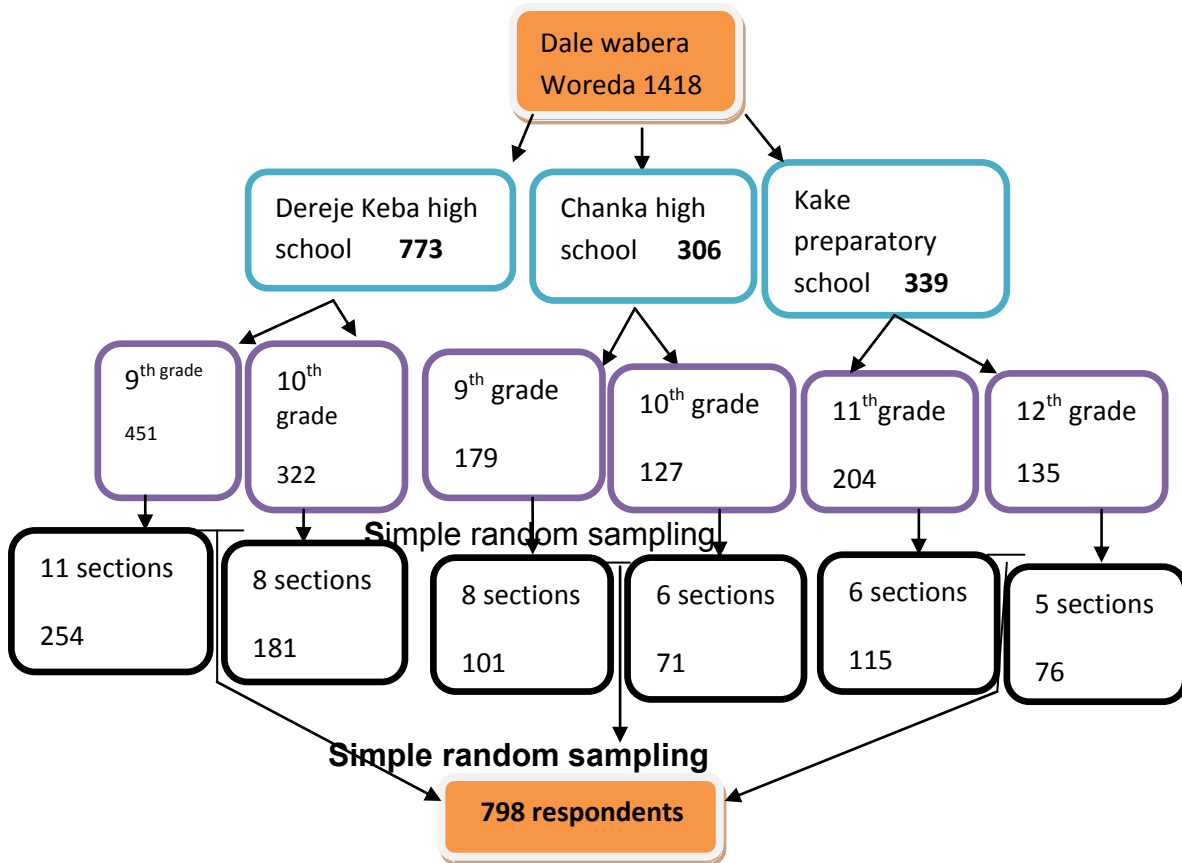
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**9. ANNEXES**



**Annex I. Conceptual frame work indicating contributing factors and consequences of FGM (25, 26).**



**Annex II. Schematic presentation of sampling procedures**

## **Annex III: Informed consent form (English Version)**

**Addis Ababa University, School of Public Health**

**Hello!**

### **1. Information Sheet**

This study will be conducted by Desalegn Shiferaw who is a final year graduate student in Addis Ababa University School of public health. The main objective of the study is to determine the magnitude and associated factors of female genital mutilation (FGM) and perception towards it. This study will provide evidence based information for governmental and nongovernmental organization those who are doing on female genital mutilation. The study will be conducted in Dale Webera woreda, Kelem Welega zone of Oromia regional state from January 2012. In the study we don't use the name of each participant rather we use our own identification code numbers. During the publication of the study result, we include the general result; otherwise we don't publish individual information. All information collected will be confidential and will not be handled over to anyone in raw form. You are not obliged to fill this questionnaire without your interest and you do have the right not to participate and the right not to continue filling the questions at any time. However, your participation in the study has a great role for decision-makers who use the results for future plan of interventions. Having the above information, I invite you to participate in the study

If you need any additional information, here is the address of the principal investigator.

***Desalegn Shiferaw: Mobile-0910907306/0920438525***

E-mail: [dsdesalegn@gmail.com](mailto:dsdesalegn@gmail.com)

**Thank you**

## Annex- IV Questionnaire

### English version

#### Part 1.socio-demographic status of the study subjects

sn	Questions	Code Number	Go to
101	How old are you	Age in complete year <input type="text"/> <input type="text"/>	
102	Where is your residence?	Urban---1 Rural----2	
103	What is your grade?	9 <sup>th</sup> -----1 10 <sup>th</sup> -----2 11 <sup>th</sup> -----3 12 <sup>th</sup> -----4	
104	What is your ethnicity?	Oromo--1 Guraghe-2 Amhara--3 Tigre ----4 Others---5	
105	What is your religion?	Protestant----1 Orthodox-----2 Muslim-----3 Other(specify)---4	

## Part 2. Questions on background of the parents of the study subjects

Sn.	Question	Code number	Go to
201	What is educational level of your father?	Illiterate-----1 Primary-----2 Secondary-----3 college/University-- -----4	
202	What is occupation of your father?	Farmer-----1 Govt employee---2 Merchant-----3 Others(specify)---4	
203	What is educational level of your mother?	Illiterate-----1 Primary-----2 Secondary-----3 University-----4	
204	What is occupation of your mother?	House wife-----1 Farmer-----2 Govt employee---3 Merchant-----4 Other (specify)---5	
205	What is perceived monthly income level of your family?	low medium high	

## Part 3. Questions on FGM status of the study subjects and perception towards it.

sn	Question	Code number	Go to
301	Have you heard of female genital cutting?	Yes-----1 No-----2	
302	Have you yourself ever been circumcised?	Yes-----1 No-----2	If no, go to 309

303	When have you been circumcised?	During summer vacation---1 During inter-semester vacation-----2 By dropping school---3	
304	Now I would like to ask you what was done to you at that time. Was any flesh removed from the genital area?	Yes--1 No----2 Don't know---3	
305	Was the genital area just nicked without removing any flesh?	Yes----1 No-----2 Don't know---3	
306	Was your genital area sewn closed?	Yes---1 No---2	
307	How old were you when you were circumcised?	I don't remember---1 Age in complete years --2 <input type="text"/> <input type="text"/>	
308	Who performed the circumcision?	Traditional circumciser---1 Health professional-----2	
309	Has one or more living sisters?	Yes---1 No-----2	
310	Is your sister/s circumcised	Yes---1 No--2	
311	How old she was when circumcised?	Age in complete years <input type="text"/> <input type="text"/>	
312	Have you been circumcised with one or more of your sisters at one time?	Yes----1 No-----2	
313	At what time of the day that you have been circumcised?	During the day time—1 During the night time-2 Early in the morning--3	

314	Do you believe that female circumcision is required by your religion?	Yes----1 No-----2	
315	Do you think that female circumcision should be continued, or should it be stopped?	Continued-----1 Stopped-----2 Depends-----3 Don't know----4	316 317
316	Why do you support FGM?	1. Religious requirement 1. yes 2. no 2. Cleanliness / Hygiene 1. Yes 2. no 3. Avoidance of promiscuity 1. yes 2. no 4. Respect for culture 1. yes 2. No 5. To avoid shame 1. yes 2. no 6. To avoid stigmatization 1. yes 2. no 7. Good for the women 1. yes 2. no 8. Aesthetics purpose 1. Yes 2. no	

		<p>9. Avoid difficulty at delivery 1. Yes 2. No</p> <p>10.Harmless 1. Yes 2. No</p> <p>11. To get a husband 1. Yes 2. No</p> <p>12. To decrease the power during sex 1. Yes 2. No</p> <p>13. Other reasons ( Specify)-----</p>	
317	Why do you reject FGM?	<p>1. Painful and Unhealthy procedure 1. Yes 2. No</p> <p>2. Unnecessary for female 1. Yes 2. No</p> <p>3. No religious support 1. Yes 2. no</p> <p>4. Bad social habit 1. yes 2.no</p> <p>5. Other reasons(specify)--- -----</p>	
318	What Interventions should be taken to eliminate FGC?	<p>1. Education through educational institutions 1. Yes 2. No</p>	

		<p>2. Education through health Institutions 1. Yes 2. No</p> <p>3. Education through mass Media 1. Yes 2. No</p> <p>4. Strengthen community Participation 1. Yes 2. no</p> <p>5. Take legal measures 1. Yes 2. No</p> <p>6. Other employment for circumcisers 1. Yes 2. No</p> <p>7. Do Not Know 1. Yes 2. yes</p>	
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## **FGD guideline**

### **Guide for In-depth Interview of the qualitative study.**

1. What is your occupation and responsibility in the community?
2. Can you tell me something you know about FGC?
3. Do you support or reject the practice? Why?
4. Do you consider FGC as a Gender Based Violence practiced on girls?
5. Does your religion support FGC?
- 6) If you have sister/s who is/ are not circumcised, do you want if she is circumcsied or not circumcised? Why? And why not?

### Guide line for the focus group discussion

- 1) What is your occupation and responsibility in the community?
- 2) Do you know FGM?
- 3) Do you support or oppose the practice of FGM? Why?
- 4) Does your religion support FGM?
- 5) What are the advantages and disadvantages of FGM you know?
- 6) What will happen to her if a girl doesn't undergo this practice?
- 7) Do you know if there is governmental policy against FGM?

## **Annex V: Informed consent form (Afaan Oromo Version)**

### **Yuuniversitii Addis Ababaatti mana barumsaa fayyaa hawaasummaa**

#### **1. Waraqaa odeeffannoo fi Walii galtee**

##### **Harka fuune!**

Maqaan koo Dessaalenyi Shifarraa yemmuu jedhamu, yuuniversitii Addis Ababaatti eegumsa fayyaa hawaasummaatti digrii maastireetiidhaan barataa isa waggaa dhumaa ti. Kaayyoon qo'annaa kanaa barattoota dubaraa mana barnootaa sadarkaa lammaffaa fi olaanaatti argaman irraa waa'ee dhaqna qabaa dubaraa odeeffannoo sassaabuu dhaa fi karaa kanaan uumamuu kan danda'an rakkoolee fayyaaf furmaata fiduuf akka gargaaru tarkaanfiiwwan fudhatamaniif karoorra baasuudhaaf. Kanaafuu gaaffilee as keessa jiran ifaa fi amanamummaan deebisuudhaan gargaarsi isin gootan baay'ee kan dinqisiifamu yeroo ta'u, kaayyooo qo'annaa kanaa galmaan gahuudhaaf qooda ofii ni qaba.

Iccitii deebii deebistanii eeguudhaaf jecha fuula kam irratti iyyuu maqaa keessan barreessuun barbaachisaa miti. Akkasumas deebii barataa qo'annoo kana irratti hirmaatee dhaabbata kamiif iyyuu dabarfamee hin kennamu.

Gaaffilee kanneen keessaa gaaffii deebii deebisuu hin barbaanne ykn gaaffilee hundaaf deebii kennuu yoo hin barbaanne mirgi keessan kan eegamee dha. Gaaffilee deebisuu dhaan wal-ta'iinsa keessan yoo argisiistan fiixaan bahumsa qo'annoo kanaatiif qooda keessan baataniittu jechuu dha. Odeeffannoo armaan olii isniif kennuun qorannoo kana irratti akka hirmaattanan isin affeera.

Gaaffii yoo qabaattan ykn wanti ifa isiniif hin taane yoo jiraate teessoon qoratichaa kan armaan gadii ti:

Bilbila: +251910907306/+251920438525

E-mail: dsdesalegn@gmail.com

**Afaan Oromo version**

**Hiika gaaffilee Afaan Oromootiin**

**Annex-II Gaaffilee**

**kutaa 1.soio-demographic status of the study subjects**

Lakk.	Gaaffii	Lakk. koodii	Gara
<b>101</b>	Umuriin kee meeqa?	Umurii wagga guutuun <input type="text"/> <input type="text"/>	
	Iddoon dhaloota kee eessa?	magaalaa---1 baadiyyaa-----2	
<b>102</b>	Kutaan kee meeqa?	9 <sup>ffaa</sup> -----1 10 <sup>ffaa</sup> -----2 11 <sup>ffaa</sup> -----3 12 <sup>ffaa</sup> -----4	
<b>103</b>	Lammummaan kee maali?	Oromoo----1 Guraagee--2 Amaaraa---3 Kan biro(ibsi)--4	
<b>104</b>	Amantiin kee maali?	Proteestaantii---1 Orthodooxii-----2 Musliima-----3 Kan biraa(ibsi)---4	

**Kutaa 2. Gaaffilee waa'ee matii hirmaattotaa ilaallatu**

lakk.	Gaaffii	lakk. koodii	Gara
201	Sadarkaan barnoota Abbaa keetii meeqa ?	Hin baranne-----1 Sadarkaa 1ffaa----2 Sadarkaa 2ffaa---3	

		Yuunivesitii/kolleejjii-- --4	
202	Hojiin Abbaa keetii maali?	Qotee bulaa-----1 Hojjetaa mootummaa----2 daldalaa--3 kan biraa(ibsi)--4	
203	Sadarkaan barnoota harmee kee?	Hin baranne-----1 Sadarkaa 1ffaa---2 Sadarkaa 2ffaa---3 Yuunivesitii/kolleejjii- ---4	
204	Hojiin harmee kee tii maali?	Haadha manaa---1 Qonnaan bultuu---2 Hojjettuu mootummaa----3 daldaltuu---4 kan biraa (ibsi)---5	
205	Galiin ji'aa warra keetii yaadaan hammami?	gadi-aanaa---1 giddugaleessa----2 ol-aanaa----- 3	

Kutaa 3. Gaaffilee waa'ee dhaqna qabaa durbaa fi ilaalcha isin waa'ee isaaf qabdan ilaallatu.

Lakk.	gaaffilee	lakk.koodii	Gara
301	Dhaqna qabaa durbaa dhageessee beektaa?	Eeyyee-----1 Lakkii----2	
302	Ati ofii keetii dhaqna qabatteettaa??	Eeyyee ----1 Lakkii -----2	Yoo lakkii ta'e, gara lakk. 309 deemi.
303	Yeroo kamiin dhaqna	Yeroo boqonnaa gannaa-----1	

	qabatte?	Yeroo boqonnaa seemisteeraa---- 2 Barumsaa addaan kutuun---3	
304	Amma yeroo sana wanta sirratti raawwatan si gaafadha. Qaamni cite gatame ni jiraa?	Eeyyee -----1 Lakkii ----2 Hin beeku---3	
305	Moo qaamni kee xiqqoo dhuma ishii qimmiidame?	Eeyyee ----1 lakkii----2 hin beeku ---3	
306	Qaamni kee walitti hodhameeraa?	Eeyyee ---1 Lakkii ---2	
307	Yeroo dhaqna qabatte umuriin kee meeqa ture?	Umurii waggaa guutuun <input type="text"/> <input type="text"/>	
308	Dhaqna qabduun eenyuun ture?	Dhaqna qabduu aadaa----1 Hojjeetaa/ttuu fayyaa--2	
309	Obboleettii/wwan durbaa qabdaa?	Eeyyee ---1 Lakkii ----2	
310	Obboleettiin kee dhaqna qabatteetii?	Eeyyee---1 Lakkii --2	
311	Yeroo dhaqna qabatte umuriin ishee meeqa ture?	Umurii waggaa guutuun <input type="text"/> <input type="text"/>	
312	Obboleettii kee tokko ykn lamaa wajjin yeroo tokko dhaqna qabattee??	Eeyyee ----1 Lakkii ----2	
313	guyyaa keessaa yeroo kamiin dhaqna qabatte?	guyyaa—1 halkan-2 ganama obboroo--3	

314	Dhaqna qabaan durbaa akka amantii keetti barbaachisaadha jettee yaaddaa?	Eeyyee —1 Lakkii ---2	
315	Dhaqna qabaan durbaa itti haa fufu moo haa dhaabbatu jetta?	itti haa fufu—1 → haa dhaabbatu---2 → haala irratti hundaa'a---3 hin beeku--4	316 317
316	Dhaqna qabaa durbaa maaliif deggerta?	1.amantii kootu ajaja 1. Eeyyee 2. lakkii 2. qulqullinaaf 1. Eeyyee 2. lakkii 3. fedha saalaa hir'isa 1. Eeyyee 2. lakkii 4. aadaa kabajuuf 1. Eeyyee 2.lakkii 5. qaanii hambisa 1. Eeyyee 2. lakkii 6. hawaasa keessatti quba namatti qabamu hambisa 1. Eeyyee 2. lakkii 7. dubartootaaf gaariidha 1. Eeyyee 2. lakkii 8. bareedinaaf	

		<p>1. Eeyyee 2. Lakkii</p> <p>9. dadhabbii yeroo da'umsaa hambisa 1. Eeyyee 2. lakkii</p> <p>10. miidhaa waan hin qabneef 1. Eeyyee 2. lakkii</p> <p>11. abbaa manaa argachuuf 1. Eeyyee 2. lakkii</p> <p>12. dadhabbii yeroo walqunnamtii saalaa hambisa 1. Eeyyee 2. Lakkii</p> <p>13. kan biraa (ibsi)</p>	
317	Dhaqna qabaan maaliif haa dhaabatu jetta?	<p>1. dhukkubbii isaaf 1. Eeyyee 2. Lakkii</p> <p>2. dubartootaaf waan hin barbaachisneef 1. Eeyyee 2. Lakkii</p> <p>3. amantiif waan hin barbaachisneef 1. Eeyyee 2. Lakkii</p> <p>4. aadaa gadhee waan ta'eef 1. Eeyyee 2. Lakkii</p> <p>5. sababa biro (ibsi)</p>	
318	Dhaqna qabaa durbaa hambisuuf maaltu godhamuu qaba?	<p>1. barnoota karaa mana barumsaatiin 1. Eeyyee 2. Lakkii</p> <p>2. barnoota karaa dhaabbata fayyaatiin</p>	

		<p>1. Eeyyee 2. Lakkii</p> <p>3. barnoota karaa miidiyaatiin(reediyoo,televiziyoona) 1. Eeyyee 2. Lakkii</p> <p>4.hirmaanna uummataa guddisuun 1. Eeyyee 2. Lakkii</p> <p>5. tarkaanfii seeraa fudhachuun 1. Eeyyee 2. Lakkii</p> <p>6.warra dhaqna qabduuf hojii biraa uumuun. 1. Eeyyee 2. Lakkii</p> <p>7.hin beeku</p>	
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### **Qajeelcha gaaffilee gadifageenyaa.**

1. hojiin kee fi dirqamni ati hawaasa keessatti qabdu maalii dha?
2. waa'ee dhaqna qabaa durbaa maal beekta?
3. ni deggerta moo ni mormita? maaliif?
4. dhaqna qabaan durbaa hoji-maata badaa durboota irratti geggeeffamu ta'u isaa ni amantaa?
5. amantiin kee dhaqna qabaa durbaa ni deggeraa?
- 6) yoo obboleettii durbaa dhaqna hin qabanne qabaatte gara fuula duraatti akka isheen qabattu ni feetaa? maaliif?

### **Qajeelcha maree garee fo'amanii**

1. hojiin kee fi dirqamni ati hawaasa keessatti qabdu maalii dha?
2. waa'ee dhaqna qabaa durbaa maal beekta?
3. ni deggerta moo ni mormita? maaliif?
4. amantiin kee dhaqna qabaa durbaa ni deggeraa?
5. Faayidaa fi miidhaan dhaqna qabaa durbaa maali beektu?
6. Durbi tokko yoo dhaqna qabachuu dhiiste maaltu ishee irra gahuu danda'a?
7. Heerri mootummaa dhaqna qabaan mormu jiraachuu isaa ni beektuu?

## Annex VI. Profile of FGD participants

### Socio-demographic characteristics of FGD participants

#### Mother's profile

Sn.	code	age	kebele	Status
1	A	42	Ganka wale	House wife
2	B	50	Ganka wale	Farmer
3	C	38	Darbo wabara	House wife
4	D	44	Darbo wabara	House wife
5	E	50	Wale diba	Farmer
6	F	25	Wale diba	farmer

#### Unmarried males' profile

Sn.	code	age	kebele	status
1	P1	20	Ganka wale	Farmer
2	P2	22	Ganka wale	Student
3	P3	21	Darbo wabara	Student
4	P4	19	Darbo wabara	Student
5	P5	25	Wale diba	Govt employee
6	P6	24	Wale diba	Govt employee

#### Influential people

Sn.	code	age	kebele	Status
1	A'	90	Ganka wale	Community leader
2	B'	45	Ganka wale	Kebele administrator
3	C'	45	Ganka wale	Religious leader
4	D'	50	Haroji hobo	Religious leader
5	E'	48	Haroji hobo	Religious leader
6	F'	54	Dale wabera	Community leader

## Annex VII. In-depth interview participants' profile

### Circumcisers

Sn.	code	age	kebele	status
1	M1	58	Ganka wale	Circumciser
2	M2	50	Darbo wabera	Circumciser
3	M3	56	Haroji hobo	circumciser

### Circumcised girls

Sn.	code	age	kebele	Status
1	G1	19	Ganka wale	Student
2	G2	18	Darbo wabera	Farmer
3	G3	19	Haroji hobo	student

## Declaration

I, the undersigned, declare that this thesis is my original work, has never been presented in this or any other university, and that all the resources and materials used for the thesis have been duly acknowledged.

Name: Desalegn Shiferaw

Signature-----

Place: Addis Ababa University

Date of submission: -----

This thesis has been submitted for examination with my approval as University advisor.

Name: Dr. Negussie Deyessa, MD, MPH, PhD.

Signature -----

Date: -----