



ARSI UNIVERSITY  
COLLEGE OF HEALTH SCIENCE  
DEPARTMENT OF PUBLIC HEALTH

Traditional Uvulectomy Practice and associated factors among parents of under five children in Eteya town, Arsi zone, Oromia, Ethiopia in 2025.

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A research thesis submitted to the Department of Public Health, College of Health Sciences, Arsi University, in partial fulfillment for the requirement of Master of General Public Health.

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Asella, Ethiopia

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## Table of Contents

|                                                                                               |    |
|-----------------------------------------------------------------------------------------------|----|
| ACKNOWLEDGEMENT .....                                                                         | 3  |
| LIST OF TABLES.....                                                                           | 6  |
| LIST OF FIGURES .....                                                                         | 7  |
| ABSTRACT .....                                                                                | 8  |
| ACRONYMS/ ABBREVIATIONS .....                                                                 | 9  |
| 1. INTRODUCTION .....                                                                         | 10 |
| 1.1. Background .....                                                                         | 10 |
| 1.2. Statement of the problem .....                                                           | 13 |
| 1.3. Significance of the study .....                                                          | 15 |
| 2. LITERATURE REVIEW .....                                                                    | 17 |
| 2.1. Magnitude of the problem.....                                                            | 17 |
| 2.2. Factors Associated with Traditional Uvulectomy.....                                      | 19 |
| 2.2.1. <i>Traditional Reasons to Perform Uvulectomy</i> .....                                 | 20 |
| 2.3. Conceptual framework.....                                                                | 21 |
| 3. OBJECTIVES .....                                                                           | 22 |
| 3.1. General Objective .....                                                                  | 22 |
| 3.2. Specific Objectives .....                                                                | 22 |
| 4. METHODS.....                                                                               | 23 |
| 4.1. Study area.....                                                                          | 23 |
| 4.2. Study design and period.....                                                             | 23 |
| 4.3. Target population, Source population and study population.....                           | 24 |
| 4.3.1. <i>Target population</i> .....                                                         | 24 |
| 4.3.2. <i>Source population</i> .....                                                         | 24 |
| 4.3.3. <i>Study population</i> .....                                                          | 24 |
| 4.5. Sample size determination and Sampling technique /Sampling procedures .....              | 24 |
| 4.5.1. <i>Sample size determination</i> .....                                                 | 24 |
| 4.5.2. <i>Sampling procedures</i> .....                                                       | 25 |
| 4.6. Study variables.....                                                                     | 26 |
| 4.6.1. <i>Dependent variables</i> .....                                                       | 26 |
| 4.6.2. <i>Independent variables</i> .....                                                     | 26 |
| 4.7. Operational definitions.....                                                             | 26 |
| 4.8. Data type and source.....                                                                | 27 |
| 4.9. Data quality assurance.....                                                              | 27 |
| 4.11. Data editing and coding .....                                                           | 27 |
| 4.12. Data analysis and interpretation.....                                                   | 27 |
| 4.13. Ethical consideration .....                                                             | 28 |
| 4.14. Result Dissemination.....                                                               | 28 |
| 5.1. Socio Demographic characteristics of respondents .....                                   | 29 |
| Table 1: Sociodemographic characteristic of respondents at Eteya, Ethiopia, 2025, N=417 ..... | 30 |
| Table 2: Frequency and information related to uvulectomy at Eteya, Ethiopia, 2025, N=417..... | 35 |
| 5.3. Associated factors .....                                                                 | 37 |

|                                                                                                                         |    |
|-------------------------------------------------------------------------------------------------------------------------|----|
| Table 3: Binary logistic regression model to identify factors associated with uvulectomy at Eteya, Ethiopia, 2025. .... | 37 |
| 7.        LIMITATION.....                                                                                               | 41 |
| 8.        CONCLUSION AND RECOMMENDATION.....                                                                            | 41 |
| 8.1. Conclusion.....                                                                                                    | 41 |
| 8.2. Recommendations .....                                                                                              | 41 |
| 9.        References .....                                                                                              | 42 |
| Annex II.....                                                                                                           | 45 |
| Annex III.....                                                                                                          | 46 |
| Questionnaire .....                                                                                                     | 46 |
| 10.      Declaration .....                                                                                              | 56 |

## LIST OF TABLES

|                                                                                                                              |    |
|------------------------------------------------------------------------------------------------------------------------------|----|
| Tale 1. Sociodemographic characteristic of respondents at Eteya, Ethiopia, 2025, N=417                                       | 48 |
| Table 2. Frequency and information related to uvulectomy at Eteya, Ethiopia, 2025, N=417                                     | 49 |
| Table 3. Binary logistic regression model to identify factors associated with uvulectomy at Eteya, Ethiopia, 2025, N=417     | 52 |
| Table 4. Multivariate Logistic Regression Model to Identify Associated Factors of Uvulectomy at Eteya, Ethiopia, 2025, N=417 | 53 |

## LIST OF FIGURES

|                                                                                                           |    |
|-----------------------------------------------------------------------------------------------------------|----|
| Figure 1. Conceptual frame work for practice and associated factors for traditional uvulectomy.<br>.....  | 5  |
| Figure 2 Sample size calculation using Epi info for second objective .....                                | 3  |
| Figure 3 Stratified sampling procedure for the study population of Eteya town.....                        | 3  |
| Figure 4 <i>Current age of the children included in study at Eteya, Ethiopia, 2025, N=417</i> .....       | 46 |
| Figure 5 <i>Age of the children at uvulectomy included in study at Eteya, Ethiopia, 2025, N=417</i> ..... | 47 |
| Figure 6 Child with history of Uvulectomy at Eteya, Ethiopia, 2025, N=417.....                            | 48 |
| Figure 7 <i>Complications of uvulectomy included in study at Eteya, Ethiopia, 2025, N=417</i> ...         | 50 |
| Figure 8 <i>Reasons for uvulectomy included in study at Eteya, Ethiopia, 2025, N=417</i> .....            | 50 |

## ABSTRACT

**Background:** Traditional uvulectomy is a common practice in many parts of Ethiopia. This procedure is deeply rooted in cultural beliefs and is thought to prevent or cure various sicknesses. It is associated with significant complications and health risks. Despite an ongoing national strategic plan to eradicate every harmful traditional practice, including traditional uvulectomy, by 2025, and the availability of modern healthcare resources, traditional uvulectomy is still widely practiced all over the country especially in rural areas. However, there is limited evidences that inform the practices of traditional uvulectomy and its associated factors in the study area.

**Objectives:** The main objective of this research was to assess the practice and associated factors of traditional uvulectomy among parents who have children of under five years in Eteya town, Arsi zone, Oromia, Ethiopia in 2025.

**Methods:** The study was conducted among 417 parents by employing a community based cross-sectional study design, utilizing a structured questionnaire for data collection on KOBO toolbox. The collected data was exported to SPSS version 27 for analysis. Descriptive analysis was carried out to describe respondent's baseline characteristics and summarized as frequency and percentage. Logistic regression was used to determine statistically significance at P-value of  $\leq 0.05$ . Adjusted Odds Ratio along its 95% Confidence interval was used to measure the degree of association between dependent and independent variables. Results are presented by using text narration, tables and graphs.

**Conclusion:** It was found that Uvulectomy in Eteya is still prevalent and needs intervention to reduce its complications.

**Key words:** Uvulectomy, under five children, practice, associated factors

## ACRONYMS/ ABBREVIATIONS

|                                             |      |
|---------------------------------------------|------|
| Asella Referral and Teaching Hospital ..... | ARTH |
| data collectors.....                        | DC   |
| Harmful Traditional Practices .....         | HTP  |
| Health Care.....                            | HC   |
| Health Extension Workers .....              | HEW  |
| Institutional Review Board .....            | IRB  |
| Principal investigator.....                 | PI   |
| Statistical Package for Social Science..... | SPSS |
| Traditional Childhood Uvulectomy .....      | TCU  |
| Traditional Medical Practices .....         | TMP  |
| Traditional Medicine .....                  | TM   |

# 1. INTRODUCTION

## 1.1. Background

Uvula is a small soft tissue that hangs down from the back of the mouth above the throat between the two tonsils. It is formed from soft palate by the fusion of the two parts of the uvula in the midline during the 11th week. Uvula has its own natural advantages of preventing aspiration, lubricating oropharyngeal mucosa, serving for language communication, boosting immunological function and prevention of breast milk regurgitation through the neonatal nose(1,2). WHO's report presents a comprehensive overview of how 179 WHO Member States are integrating traditional and complementary medicine into their national health systems. There is a growing recognition of T&CM as a valuable resource for managing chronic diseases, supporting aging populations, and expanding access to care amid rising healthcare costs. Many countries reported adverse events linked to unregulated herbal products, unsafe procedures, and poorly trained practitioners. These include toxic reactions, contamination, incorrect dosages, and interactions with conventional medicines. The lack of standardized regulation and quality control—especially in low- resource settings—can lead to serious health consequences. Moreover, delayed access to evidence- based treatment due to reliance on unproven remedies remains a major public health risk.

UNICEF identifies harmful practices like child marriage, female genital mutilation (FGM), and nutritional taboos as deeply rooted cultural norms that violate children's rights and jeopardize their health and development. These practices are often perpetuated by social pressure, gender inequality, and limited awareness of their consequences.

Across Africa, harmful traditional practices continue to affect tens of millions of girls and women, undermining their health, rights, and futures. According to UNICEF, over 125 million girls and women in Africa were married before the age of 18, with some countries reporting rates as high as 29% before age 15. In parallel, more than 144 million girls and women across the continent have undergone female genital mutilation (FGM)—the highest regional share globally. In certain countries, prevalence exceeds 90%, while others have made significant progress, with rates falling below 1%.

These practices are not only widespread but deeply entrenched in social norms, often occurring together and disproportionately affecting vulnerable populations. Without accelerated action, projections suggest that Africa could account for nearly half of all child brides globally by 2050.

There are a number of Traditional Medical Practices, TMPs that reflect the diversity of Ethiopian cultures. Traditional medical practices related to surgery are bone- setting done by Wogeshas, uvulectomy, bleeding by puncture, cupping, cauterization, scarification and tooth extraction(3–5). There may also be many unrecognized traditional medical practices in different communities which may influence the health of community in different ways (6,7). Traditional uvulectomy, the removal of the uvula, is a practice rooted in cultural beliefs and traditional medicine in many African countries, including Ethiopia. It is often performed to treat or prevent various illnesses such as throat infections, difficulty in breastfeeding, and failure to thrive. Despite its widespread acceptance, the procedure carries significant health risks, including infection, hemorrhage, and even death.

In Ethiopia, it is evident that there are regional and sub-regional variations in the prevalence and types of Harmful Traditional Practices, HTPs, including traditional uvulectomy(6). The national strategy and action plan against HTPs like traditional uvulectomy indicates that traditional uvulectomy is relatively common in northern parts of the country, especially in Tigray and Amhara regions than Oromia region(3,5,8). However, there is no documented or published data indicating the prevalence of traditional uvulectomy alone in Arsi zone, other published papers from west Arsi assess the practice of uvulectomy together with other traditional medical practices.

Though not relatively common than the northern regions, the practice of traditional medicine including harmful traditional practices is widespread in all zones of Oromia region. In Arsi zone traditional uvulectomy and other harmful practices are widely practiced among rural population who have difficulty getting access to health care facilities, though it is also practiced among the urban community living in towns who have access to health care due to multitude of reasons (3,8). In ARTH, data obtained from registers and quarterly audits of pediatrics department over the last year 17 cases were admitted as a complication of uvulectomy, among which 12 were neonates (less than 28 days of age), 11 were from Eteya town, 4 were from Gonde town and 1 was from Ziway Dugda and 1 was from Siltana kebele. 13 children were discharged improved, 3 of them left the hospital against medical advice and 1 neonate died due to severe sepsis. 12

children admitted due to excessive uvula stamp bleeding, 5 of which developed severe anemia which needed transfusion the rest were controlled bleeding, 4 children were admitted due to infection and neonatal sepsis.

Uvulectomy practitioners and the society explain the procedure as they had learnt it from their fathers and grandfathers as a culture. The traditional Oromo thinking, Kallu, the orthodox Coptic Church and Islamic teaching which look after disorders that was supposed to be caused by evil spirits using reputation and herbal remedies. Most of the practitioners are “Sheka” (a religious leader). They say they perform it to benefit the patient to relief from vomiting specially for newborns and treats disease of the throat for others. According to these practitioners, there is no risk to the babies except some Injuries to other parts of the mouth of children that could sometimes occur due to poor handling of the mother(3,4,8–10). Concerning the reasons of the practice, it is source of income for them and curing of disease for children. So understanding the factors that drive parents to seek for traditional uvulectomy for their children is crucial for developing effective public health strategies(5,6,8,10–12).

## **1.2. Statement of the problem**

The root causes of problems associated with the practice of traditional uvulectomy performed on children of under five years is an interplay of complex social and cultural foundations(5,6,13,14). This can be seen both from social and cultural perspectives and from modern medical care perspective. From modern cultural, social and a human right perspective, HTMP is discouraged, particularly when performed on infants and children. Children are dependent on adults. Because of this reason the international human rights constitution states that performing any malpractice on children is a violation of human rights. Children's health rights shouldn't be compromised by parents' harmful choices. Thus, all children have the right to be free from any medical intervention that may negatively affect their health. The right to health law, which is included in the federal ministry of justice proclamation no 414/2004, has also stated that no person's and or children life should be put at risk or endangered by reason of a lack of access to health care services and/or information, counseling or services related to sexual or reproductive health(6,12). Despite the above mentioned risks on children, the practice of harmful traditions, especially of uvulectomy persists due to strong cultural beliefs and lack of awareness about the potential dangers(6). We can see the adverse health outcomes of traditional uvulectomy on children, as early or immediate adversities that result in severe morbidities that lead the child to serious infection, bleeding and other emergency medical conditions that require immediate medical attention. While other adversities lead to long term health related complications that may not be significant during or just after the procedure(1,2,15).

This health risks associated with traditional uvulectomy are well-documented. These include infection, hemorrhage, and airway obstruction. In some cases, the procedure can lead to severe complications and even death(15). When someone dies after a traditional procedure especially uvulectomy, it might be due to a combination of factors. These factors can be the procedure itself, preexisting health conditions or synergistic effect of both by depriving access to emergency medical care when complications of the procedure arise. Most of the procedures and complications related to the procedure are not reported as there is no mechanism to reporting and there is no linkage with traditional healers. In fact the traditional uvulectomy practitioners attribute the complications to other religious causes than taking the blame(5,6,9).

Asella Referral and teaching Hospital, as the only higher level health care institution in Arsi zone, serving more than 5 million population in the region, it is the only place data is available

where children who undergone uvulectomy and resulted in complications present for specialized medical assistant. According to data obtained from registers of pediatrics department of the hospital, severe anemia secondary to uvula stamp bleeding is by far the commonest presentation, especially neonates to ARTH(16). Other conditions like severe sepsis are also reported. Although not attributed as a health problem finding a cut uvula is a routine finding during physical examination of pediatric patients while visiting the hospital for unrelated medical conditions or other hospital visits. This indicates that uvulectomy is still quite prevalent in Arsi zone and neighboring communities. Associated factors to this practice should be also determine. It appears that further study and action are needed because the surveys and studies conducted in the Arsi zone are insufficient. The majority of other researches concentrate on the practice's prevalence and health dangers, but they don't offer compelling proposals for effective interventions or remedies to address the current issue. That's why we encounter cases with uvulectomy at ARTH despite access to modern health care services.

In Eteya town, the practice of traditional uvulectomy remains prevalent despite the availability of modern healthcare services. In conclusion, the lack of empirical data on the prevalence and associated factors of this practice specifically in this area and lack of strong recommendations hinders the development of successful and targeted interventions to affect the practice of the society. This study aims to fill this gap by providing comprehensive data on the practice of traditional uvulectomy among parents of under-five children in Eteya town, and aims to provide strong and locally applicable and culture congruent recommendations and suggestions to reduce the magnitude of the problem.

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

Although studies done to assess the practice of uvulectomy alone are not adequately published, other studies performed on traditional medical practices revealed that Ethiopians use Traditional Medicine due to the cultural acceptability of healers and lack of access to modern health facilities. However, the current Ethiopian health care system is a primary health care system focused and access is available. Nevertheless, both rural and urban populations continue to use traditional medicine. The reasons behind this are not yet clear. Although Traditional Medicine, TM plays an important role in Ethiopian society, knowledge about the extent and characteristics of traditional medical practices is limited. The national health system has not focused on studying therapeutic potentials as well as adverse effect. All types and their determinants have also not been thoroughly studied scientifically at the community level(3,4,6,12,17). The practice of traditional uvulectomy need no studies to determine their potential benefit as it is obvious that these practices are done in obsolete, harmful ways and cause serious illnesses(2). Previous research done in other areas shows there are many health complications related with this traditional practices(2,6). This research on the practice and associated factors of traditional uvulectomy among parents of under-five children in Eteya town is significant for several reasons.

Firstly, it will provide valuable insights into the prevalence and reasons behind this traditional practice. Understanding the factors that drive parents to opt for uvulectomy can help identify the cultural, social, and economic influences at play. This knowledge is crucial for designing effective interventions and educational programs aimed at reducing the practice and promoting safer health practices.

Secondly, the study can contribute to the broader field of public health by highlighting the potential health risks and complications associated with traditional uvulectomy. By documenting the adverse outcomes and complications, the research can raise awareness among healthcare providers and policymakers about the need for stricter regulations and guidelines. This can lead to the development of policies that protect children from unnecessary and potentially harmful procedures.

Lastly, the research can serve as a foundation for future studies and interventions. By providing a comprehensive understanding of the practice and its associated factors, the study can guide future research efforts aimed at exploring alternative, safer health practices. It can also inform the development of culturally sensitive health education programs that address the beliefs and

misconceptions surrounding traditional uvulectomy. Ultimately, the research has the potential to improve child health outcomes and contribute to the overall well-being of the community.

Generally, this study will provide valuable insights into the practice of traditional uvulectomy and its associated factors. The findings will inform public health interventions aimed at reducing the prevalence of traditional uvulectomy and improving child health outcomes in the area and similar settings. Health is a fundamental human right. Access to health care which includes access to essential drugs is a prerequisite for releasing the rights. Cultural values and beliefs need to be respected and understood, to appropriately use them within any caring or curing processes. Cultural conditions need to be considered to provide culturally congruent, meaningful, and beneficial health care to the people. Thus, the negative and positive elements of TMPs were some of the cultural issues that determine the health of under-five children. It is also important to consider minor differences in traditions and to try to mitigate the slightest differences in cultural practices of the country and within similar cultural settings. This indicates that region-specific studies are important. Cultural diversity among population of Ethiopia is one of the indications for the importance of area specific TMP studies. Thus, the health policy strongly support the research on TM especially harmful practices like traditional uvulectomy(6,12).

## 2. LITERATURE REVIEW

### 2.1. Magnitude of the problem

Traditional uvulectomy, was common practice in the western otorhinolaryngological practice some 120 years ago. It is partial or total removal of the uvula, is a practice observed in various regions, particularly in sub-Saharan Africa. This procedure is often performed by traditional healers and is believed to treat or prevent various ailments such as throat infections, vomiting, and failure to thrive in children(2,7,18). It is also performed east African countries. Traditional Uvulectomy is also a common traditional practice in Nigeria and other African countries(15,18). The procedure persists in the developing countries probably because of low socioeconomic status and non-formal educational level(15).

According to a systematic review and meta-analysis conducted in January 2025. Pooled estimate of Traditional Childhood Uvulectomy, TCU in some African countries was 40.98% (95% CI: 25.04–56.92;  $I^2 = 99.61$ ,  $P = 0.001$ ). Mothers residing in rural areas were 2.45 times more likely to have a child experienced TCU compared to those in urban areas (AOR = 2.45; 95% CI: 1.59–3.32). Similarly, Mothers with a history of having a previous child who undergo TCU were 8.44 times more likely to seek the procedure for their other children compared to mothers without such a history (AOR = 8.44; 95% CI: 6.27–10.61). However, caution is warranted when interpreting these findings due to the significant heterogeneity reported across the included studies, which may influence the generalizability of the results(19).

A systematic review and meta-analysis to assess the burdens, associated factors, and reasons of traditional uvulectomy in Ethiopia which was done in 2023 revealed an overall pooled prevalence of uvulectomy in Ethiopia was 44 % (95 % CI: 31%–57 %). The highest prevalence was observed among studies conducted in the Tigray region 63%(11). Studies have also shown that the prevalence of traditional uvulectomy varies widely across different regions. For instance, a study conducted in the South Gondar Zone of Ethiopia found that 52.5% of caregivers had subjected their children to uvulectomy. The primary motivations for this practice include cultural beliefs, perceived health benefits, and the influence of traditional healers(11,14,20,21). According to study done in Debre Tabor University there were 15.88% post uvulectomy neonatal admissions. All the post uvulectomy neonatal admissions had at least one complication of which post uvulectomy sepsis accounted the highest burden 88%(22). Study done in Debre Birhan town

revealing the prevalence of uvulectomy among under five children is 23.7% and bleeding, fever and speech problem were mostly observed complication after uvulectomy(23).

Other studies conducted in west Hararghe zone, Dadar town also indicate traditional uvulectomy along with other harmful traditional practices like Female Genital Cutting and others is commonly practiced and the practice is highly influenced by culture, religion and educational status of parents of the children(5). It is also shown that traditional uvulectomy along with other traditional surgical procedures and other traditional medicinal herbs utilization are common in the west Arsi zone Kofele town, whose composition of population more or less share many cultural similarities with the population of Eteya town(8).

In many communities, the uvula is believed to cause various illnesses, and its removal is seen as a preventive measure(14,20,21). Additionally, the lack of access to modern healthcare and the perceived ineffectiveness of pharmacological treatments contribute to the persistence of this practice(6,12). Despite its cultural significance, traditional uvulectomy poses significant health risks, including infections, hemorrhage, and even death(2,11,24). Understanding the prevalence, motivations, and associated factors of this practice is crucial for developing effective public health interventions.

## **2.2. Factors Associated with Traditional Uvulectomy**

The reported factors associated with traditional uvulectomy include, residence, maternal and paternal education, maternal history of uvulectomy, mothers' occupation, and attitude towards modern HC and traditional practices(9,11,14,19,23,25,26). According to a systematic review and meta-analysis done in 2023 in Ethiopia mothers' educational status and residence were found to be significantly associated with uvulectomy in Ethiopia(11,21). Most studies reported the association of traditional uvulectomy with mothers 'educational levels(7,14,19,25). Accordingly, the pooled odds of educational status revealed that children from mothers who had lower educational status were more likely to be a victim of traditional uvulectomy as compared to their counterparts (AOR: 1.66, 95 % CI: 1.31–2.01). The pooled odds showed that children from rural areas were 1.7 times more likely to be exposed to traditional uvulectomy (AOR: 1.70, 95 % CI: 1.16–2.23). Similar research done in Arbaminch town also revealed that practice of Uvula cutting was higher among children's who reside in rural areas was 2.14 times, more likely to practice uvula cutting than children's who live in urban(27). Furthermore, the pooled odds revealed that the sex of the child, religion, and ethnicity were not associated with uvulectomy(19,22).

Several other studies showed similar results for factors which are associated with the practice of traditional uvulectomy. These include socio-demographic factors such as age, education level, and rural residence. For example, a study in Gondar City, Ethiopia, found that mothers aged 30 to 34 years, those with no antenatal care visits, and those with poor attitudes towards modern healthcare were more likely to practice uvulectomy(14). In Debre Birhan study 34.9% of the respondents were stimulated by friend to perform the procedure followed by 50.5%, 13.8% and 0.9% no better cure by medical treatment, traditional uvulectomist and religious leaders respectively(23). Regarding to occupational status house wife were AOR 2.969(95% CI 1.346-6.550) times, farmers AOR 2.859(95% CI 1.1.161-7.039) times and others like bar tender AOR 3.858(95% CI 1.164-12.792) times as likely to practice uvulectomy than government employees(23). Others like age of mother, religion, ethnicity, marital status, family income and sex of child have no significant association with uvula cutting(4,9,14,23).

Home delivered neonates were 6.02 times more likely to have traditional uvulectomy when compared to those born at health institution. Neonates whose mothers mentioned at least one adverse effect of traditional neonatal uvulectomy were 93.2% less likely to be victim when

compared to those whose mothers mentioned none of the adverse effects(14,20,25). Furthermore, the influence of traditional healers and the perceived hospitality of healthcare personnel also play significant roles. The practice is often perpetuated by the belief in its effectiveness and the observation of positive outcomes in other children(3,8,10,11,11).

### ***2.2.1. Traditional Reasons to Perform Uvulectomy***

Indications for traditional uvulectomy vary. It is commonly indicated for prevention of throat problems. Elongated uvula is believed to be the precursor of all throat problems and it is a chief indication in the developing world(11,15). According to Studies done in Ekiti, south west Nigeria, Reasons given by the respondents for removing their uvula are pain in the throat in (89.7%), swelling in the throat (5.9%), difficulty with swallowing (2.9%) and persistent throat discomfort in (1.5%) of them(18). According to a study in Tanzania, the most common reason given for uvulectomy was cough (81.8%) while only 9.1% gave tonsillitis as the reason for uvulectomy in addition to cough. Another 9.1% gave failure to gain weight and inappropriate breastfeeding as the cause of performing the uvulectomy(13).

In Ethiopia, Several reasons are frequently cited as reasons to practice traditional uvulectomy, including “to prevent swelling, pus and rupture of the uvula”, “the need for a better medical cure”, “to prevent sore throats”, “to prevent of coughs”, “as religious component”, and “pressure from traditional uvula cutters”. Additionally, it was frequently stated that performing a traditional uvulectomy was necessary when the infant was unable to suckle or feed, had an enlarged or depressed anterior fontanel, had a harsh voice, excessively salivated, and was afraid of dying from a spontaneous rupture of the tonsils or uvula. Other causes, such as prior success, fever, coughing, sneezing, and fatigue, were hardly cited(3,5,8,11,13,19,22). In Debre Tabor Study Mothers suspect uvular swelling and elongation when their neonates develop different nonspecific symptoms, which are considered maternal perceived indicators of uvular swelling and elongation. Mothers of the uvulectomies were perceived their own signals (indicators) of uvular swelling and elongation. And majority of the mothers reported that their neonates failed to breastfeed (23.88%) followed by fever(22).

### 2.3. Conceptual framework

As many literatures suggest that those factors like occupational status, educational status, place residence, place of delivery, having parental history of uvulectomy, attitude toward modern Health Care HC, age of the child and religion have association with practice of uvulectomy(4,14,19,21,23,25,25,28).

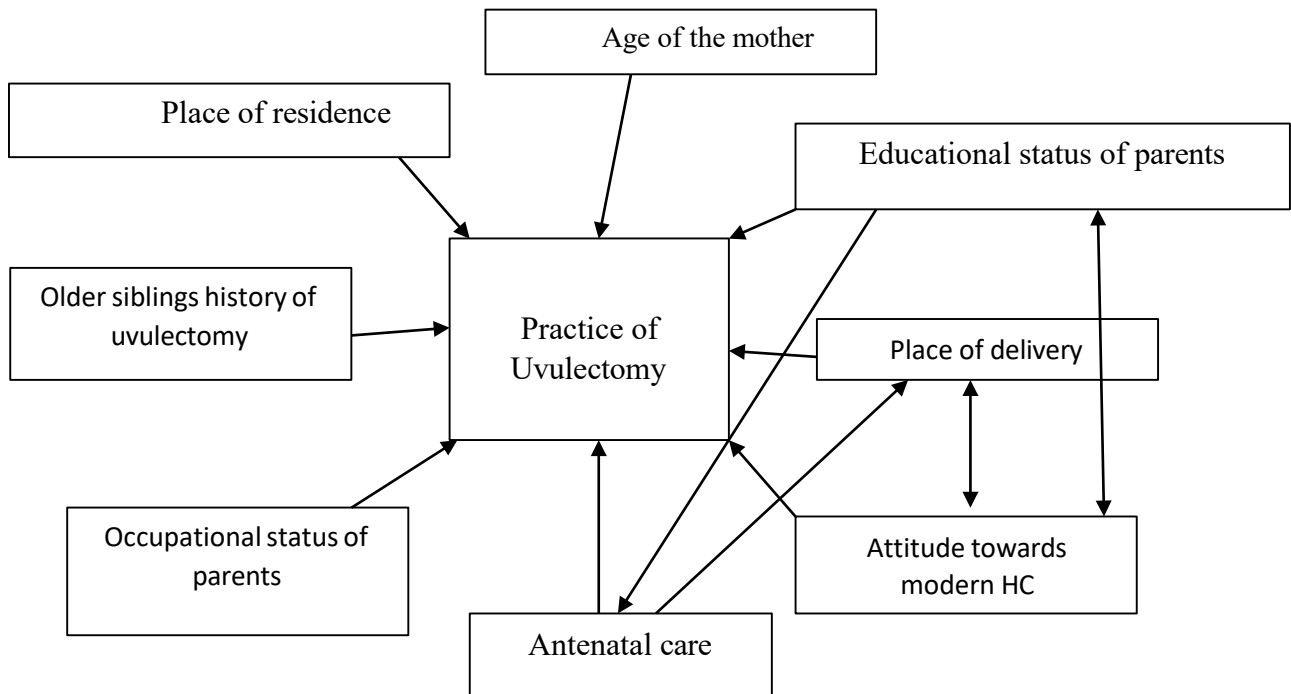


Figure 1. Conceptual frame work for practice and associated factors for traditional uvulectomy.

### **3. OBJECTIVES**

#### **3.1. General Objective**

To assess the practice and associated factors of traditional uvulectomy among parents of under-five children in Eteya town, Arsi zone, Oromia, in 2025.

#### **3.2. Specific Objectives**

- To determine the practice of traditional uvulectomy among parents of under-five children in Eteya town, Arsi zone, Oromia, in 2025.
- To identify the factors associated with the practice of traditional uvulectomy among parents of under-five children Eteya town, Arsi zone, Oromia, in 2025.

## **4. METHODS**

### **4.1. Study area**

The study was conducted in Iteya town, Hetosa woreda, Arsi zone. Eteya is located 150 km south of Addis Ababa and 25 km from the capital of Arsi zone, Asella. It is the administrative center of the Hitosa woreda. The town is composed of two kebeles each having 5 distinct zones. It has several government and private healthcare facilities, also a 30min distance from ARTH, but traditional medicine remains widely practiced.

### **4.2. Study design and period**

This study employed a community based cross-sectional design to assess the prevalence and associated factors of traditional uvulectomy among parents of under-five children in Eteya town. Both quantitative and qualitative data were used to provide a comprehensive understanding of the practice by utilizing structured interview questionnaire. The study was conducted from July 07 to December, 2025.

### **4.3. Target population, Source population and study population**

#### ***4.3.1. Target population***

The target population was all parents living in Eteya town.

#### ***4.3.2. Source population***

All parents who have under-five children and residing in Eteya town during the study period.

#### ***4.3.3. Study population***

The study population consisted of all selected parents who have under-five children residing in Eteya town.

### **4.4. Inclusion and Exclusion criteria**

**4.1. Inclusion criteria:**-Inclusion criteria included parents who have lived in the town for at least six months and have at least one child under the age of five.

**4.2. Exclusion criteria:**-Parents who were ill and unable to respond during the study period were excluded.

### **4.5. Sample size determination and Sampling technique /Sampling procedures**

#### ***4.5.1. Sample size determination***

The sample size was determined using a formula for estimating proportions in a cross-sectional study. The sample size of 417 was calculated using the formula for estimating a single population proportion, with the following assumptions :(1) The national pooled prevalence of traditional uvulectomy among under-five children in Ethiopia is 44%, (2) The margin of error is 5%; (3) The confidence level is 95%; (4) The non-response rate is 10%. The sample size calculation is shown below:

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

$$n = [(1.96)^2 * 0.44 * (1-0.44)] / 0.05^2$$

$$n = [3.8416 * 0.44 * 0.56] / 0.0025$$

$$n = 378.6 \rightarrow 379$$

$$n = 417, \text{ with } 10\% \text{ non-responders rate } (37.9)$$

Therefore, the minimum sample size required for this study is 417.

For second objective the sample size was calculated using the double population proportion formula by Epi info considering 95% CI, 80% power, 1:1 ratio of exposed to unexposed, from a similar research done in Arbamich town anticipated proportion of uvula cutting among under-five children who live in urban areas  $P_1 = 58.5\%$ , with AOR of 2.14 gives  $P_2 = 75.1\%$  for children

residing in rural areas with Risk Ratio of 1.28. Therefore the sample size was 274 and with 10% non-response rate the final sample size is 302. Comparing with initial sample size we took the initial sample size of 417 for this study.

StatCalc - Sample Size and Power  
Unmatched Cohort and Cross-Sectional Studies (Exposed and Nonexposed)

Two-sided confidence level: 95%  
Power: 80 %  
Ratio (Unexposed : Exposed): 1  
% outcome in unexposed group: 58.5 %  
Risk ratio: 1.28382  
Odds ratio: 2.14  
% outcome in exposed group: 75.1 %

|           | Kelsey | Fleiss | Fleiss w/ CC |
|-----------|--------|--------|--------------|
| Exposed   | 127    | 126    | 137          |
| Unexposed | 127    | 126    | 137          |
| Total     | 254    | 252    | 274          |

Figure 2 Sample size calculation using Epi info for second objective

#### 4.5.2. Sampling procedures

Although the composition of the population of Eteya town is homogeneous, for ease of sampling a stratified sampling procedure was used to select the respondents due to the administrative units, zones are in place in both kebeles of the town. Considering the town with two kebeles and homogenous population the calculated sample size 417 is divided for the two kebeles and the 10 distinct zones, which gives 21 participants in each zone by stratifying the sample by zones. Then the 21 participants from each zone were selected by simple random sampling method within the strata.

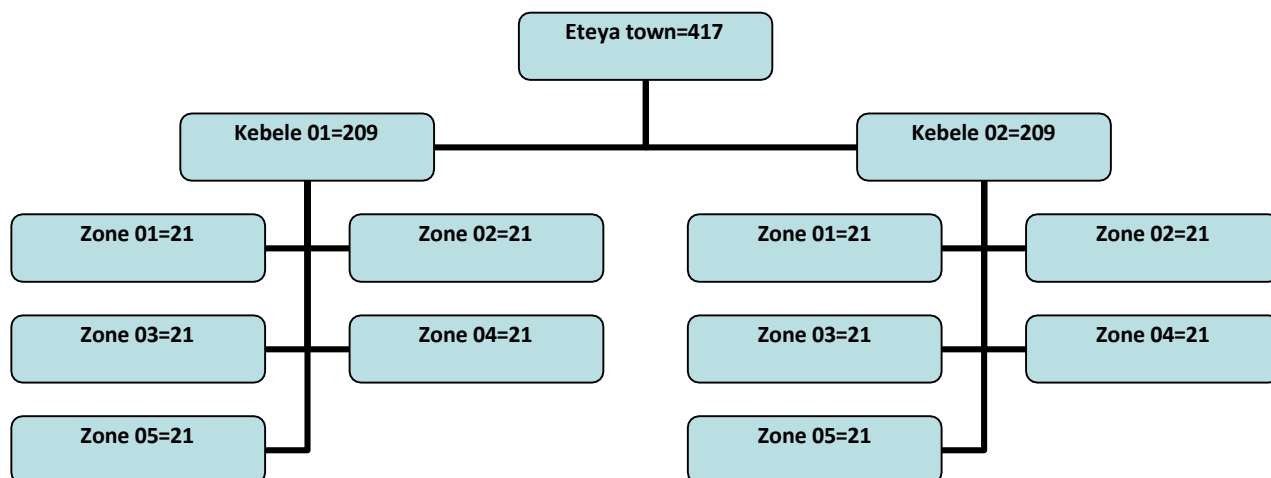


Figure 3 Stratified sampling procedure for the study population of Eteya town.

## **4.6. Study variables**

### ***4.6.1. Dependent variables***

- Practice of Traditional Uvulectomy:

### ***4.6.2. Independent variables***

- Age of the mother/guardian
- Educational level of parents
- Occupation of parents
- Attitude towards uvulectomy
- Place of residence
- Place of delivery
- Siblings' history of uvulectomy

## **4.7. Operational definitions**

- *Practice of Traditional Uvulectomy*: Whether the child has undergone traditional uvulectomy, measured by a yes/no response from the parents.
- *Uvulectomy practitioner*: A traditional healer who performs uvulectomy
- *Under five children*: All neonates, infants and toddlers who are under the age of 5 completed years.
- *Siblings' history*: The child's brother or sister who previously had uvulectomy.
- *Wogesha*: Traditional healers who especially performs bone setting and traditional massages.

#### **4.8. Data type and source**

Primary data was collected by using face to face interview with a structured questionnaire

#### **4.9. Data quality assurance**

To ensure the quality of data, comprehensive orientation and training was given for 2 days before the data collection procedure starts to data collectors and supervisors about data collection processes and techniques. We utilized KOBO Toolbox for data collection, which allows for the creation of custom forms and automated data entry. This platform facilitated mobile data collection and enable real-time data validation. We implemented validation rules within KOBO Toolbox to automatically flag incorrect or out- of-range values during data entry. Afan Oromo language-translated tools were used. A pre-test was conducted on 21 eligible parents of under five years children (5% of sample size) at one of the zones (Zone 01 of kebele 01 of Eteya town) of the area and that was not included in the study and tool modification was made. Moreover, the data collection process was supervised strictly by the principal investigator.

#### **4.10. Data collection instruments**

This data was collected using KOBO Toolbox for ease of data collection and user friendly, offline data collection method. Two data collectors, DC, who are Health extension workers, HEW, working in the town were hired to collect the data. We selected the HEW because they know the local population's health practices and have frequent contact with the target population. They were also familiar with the local population and can get the required data without the respondents being biased due to different reasons. A two days of training on the objective of the study, content, ethical procedures, methods of data Collection, familiarizing with Kobo Toolbox and interviewing technique was provided to data collectors. The supervision was done at each step (days) of data collection by principal investigator, PI.

#### **4.11. Data editing and coding**

Errors such as incomplete answers, and extra answers due to miss understanding of the questions were reduced through data editing. The edited data was coded in the way that it was feasible to transfer to SPSS.

#### **4.12. Data analysis and interpretation**

The collected data was exported to Statistical Package for Social Science, SPSS version 27 for advanced statistical procedures like multivariate and factor analysis. A descriptive analysis was carried out to describe respondent's baseline characteristics and were summarized as

frequency and percentage. Binary logistic regression was used to assess the practice and Multi-nominal Logistic regression to model the independent variables', and P-value of  $< 0.05$  was considered statistically significant and interpreted statistically.

#### **4.13. Ethical consideration**

Ethical clearance was obtained from Arsi University, Asella teaching and referral hospital, IRB, and informed consent from parents orally, by clearly explaining the study's purpose and their rights, including the ability to refuse participation. The consent form explained the purpose, procedures, benefits, risks, confidentiality, and voluntary nature of the study. The data collected was stored anonymously.

#### **4.14. Result Dissemination**

The result of the study will be presented to Arsi University, College of medicine and health science, the School of Post Graduate and Department of Public Health, as partial fulfillment for the requirement of Masters of General Public Health. The final result of this thesis will be accessed from Arsi University, College of Health Science library as the source for future learning. It will be submitted as hard copy for ATRH which will be used as an input for health care professional training and development. Finally, efforts will be made to publish on reputable peer reviewed journals.

## **5. RESULTS**

### **5.1. Socio Demographic characteristics of respondents**

In this study 417 participants were interviewed and yielded 100% response rate. The classification of mothers or guardians by age shows that the majority fall within the 30 to 50 years range, accounting for 296 individuals (71.0%) of the total respondents, 19 individuals (4.6%), is younger than 30 years. Meanwhile, 102 individuals (24.5%), are above 50 years. The data on religion reveals that the majority with Muslims accounting for 193 individuals (46.3%) and Orthodox at 191 individuals (45.8%). Together, these two groups represent over 92% of the total population, Protestants 33 individuals (7.9%).

The majority of respondents are Oromo, 311 individuals (74.6%), Amhara with 64 individuals (15.3%), Silte (12 individuals, 2.9%), Tigre (5 individuals, 1.2%), other ethnicities (25 individuals, 6.0%). The overwhelming majority had attained only primary education, accounting for 316 individuals (75.8%). A notable portion, 96 individuals (23.0%), no formal education, highlighting limited educational access among many guardians. Only a very small fraction had progressed beyond primary school, with 3 individuals (0.7%) having completed secondary education and just 2 individuals (0.5%) reaching tertiary or higher education. Overall, the distribution reflects a population where formal education beyond the primary level is rare, underscoring the predominance of low educational attainment among guardians in this context.

The data on respondents or guardians shows that the majority are mothers, accounting for 296 individuals (71.0%) of the total sample. Fathers represent 91 individuals (21.8%), while others such as extended family members or non-parental guardians make up 30 individuals (7.2%). The occupational status shows merchants, accounting for 276 individuals (66.2%), Farmers make up 51 individuals (12.2%), while private employees represent 38 individuals (9.1%), and housewives account for 17 individuals (4.1%). A smaller share is seen among those categorized as other occupations (31 individuals, 7.4%), and only 4 individuals (1.0%) are government employed. The data on residence shows that Eteya 01 Kebele, accounting for 335 individuals (80.3%) of the total sample.

Table 1: Sociodemographic characteristic of respondents at Eteya, Ethiopia, 2025, N=417

| Variable               | Categories          | Frequency | Percentage |
|------------------------|---------------------|-----------|------------|
| Age (Grouped)          | Less than 30 years  | 19        | 4.6%       |
|                        | 30–50 years         | 296       | 71.0%      |
|                        | Above 50 years      | 102       | 24.5%      |
| Religion               | Muslim              | 193       | 46.3%      |
|                        | Orthodox            | 191       | 45.8%      |
|                        | Protestant          | 33        | 7.9%       |
| Ethnicity              | Oromo               | 311       | 74.6%      |
|                        | Amhara              | 64        | 15.3%      |
|                        | Other               | 25        | 6.0%       |
|                        | Silte               | 12        | 2.9%       |
|                        | Tigre               | 5         | 1.2%       |
| Educational Background | No formal education | 96        | 23.0%      |
|                        | Primary             | 316       | 75.8%      |
|                        | Secondary           | 3         | 0.7%       |
|                        | Tertiary/Higher     | 2         | 0.5%       |
| Guardian Type          | Mother              | 296       | 71.0%      |
|                        | Father              | 91        | 21.8%      |
|                        | Others              | 30        | 7.2%       |
| Occupational Status    | Merchant            | 276       | 66.2%      |
|                        | Farmer              | 51        | 12.2%      |
|                        | Private Employed    | 38        | 9.1%       |
|                        | Other               | 31        | 7.4%       |
|                        | Housewife           | 17        | 4.1%       |
|                        | Gov't Employed      | 4         | 1.0%       |
| Residence              | Eteya 01 Kebele     | 335       | 80.3%      |
|                        | Eteya 02 Kebele     | 82        | 19.7%      |

The age distribution shows that a very small proportion, 11 children (2.6%), were under 6 months old, while 18 children (4.3%) were between 6 and 12 months. A larger share, 128 children (30.7%), fell within the 12 to 24 month range. The majority, however, were older than 24 months, with 260 children (62.4%). The data on the sex of children shows that the majority are male, accounting for 262 individuals (62.8%), while females make up 155 individuals (37.2%) of the total sample.

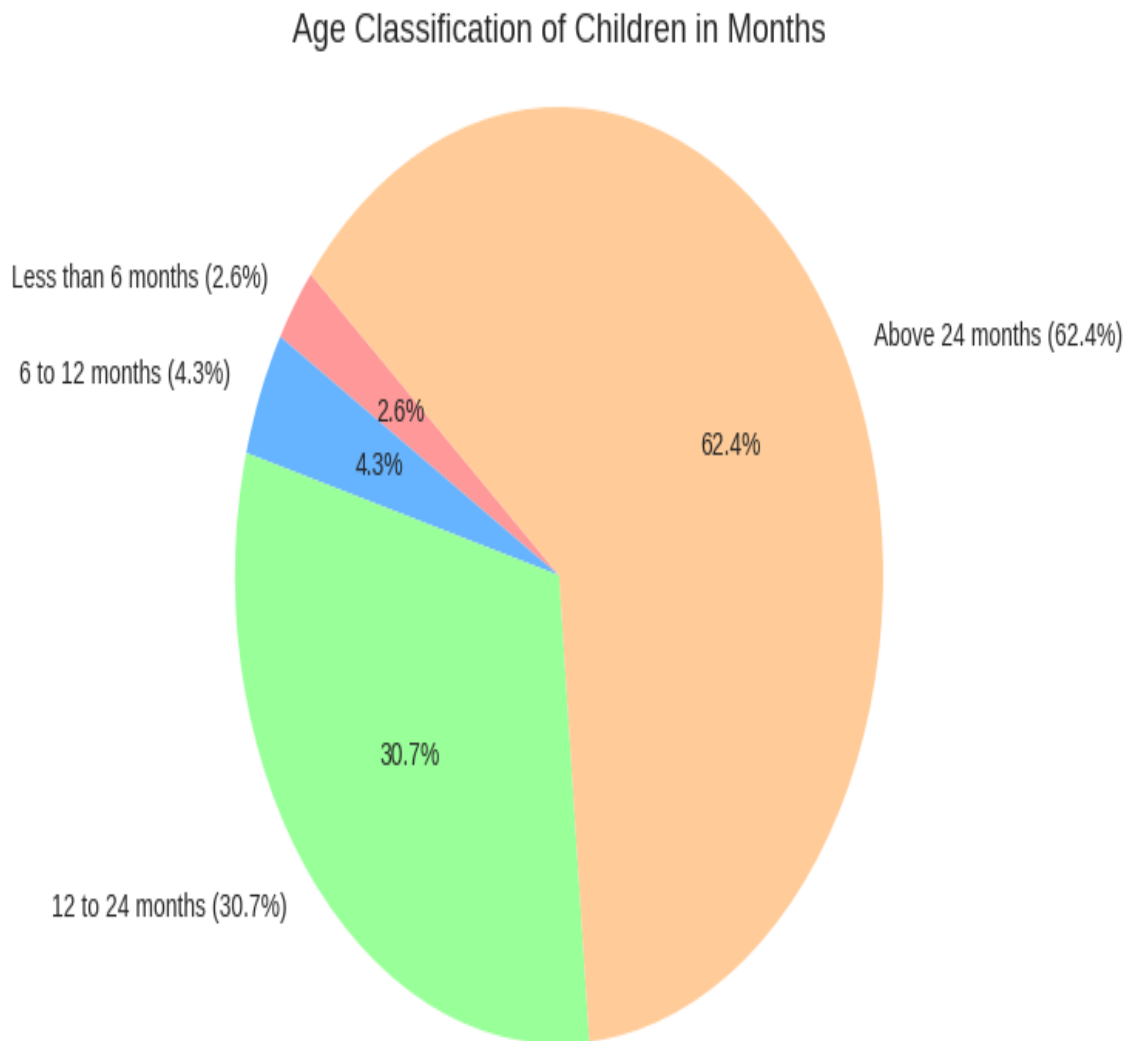


Figure 4: Current age of the children included in study at Eteya, Ethiopia, 2025, N=417

## 5.2. Practice of Uvulectomy

A total of 417 parents/care givers were interviewed out of which 93 of their children had history of uvulectomy, giving the magnitude of 22.3%. The data on age at uvulectomy shows that the majority of procedures were performed during infancy, with 61 children (65.6%) undergoing uvulectomy between 6 and 12 months of age. A considerable portion, 28 children (30.1%), had the procedure at less than 6 months. Only a small minority, 4 children (4.3%), underwent uvulectomy between 12 and 24 months, and none were recorded beyond 24 months.

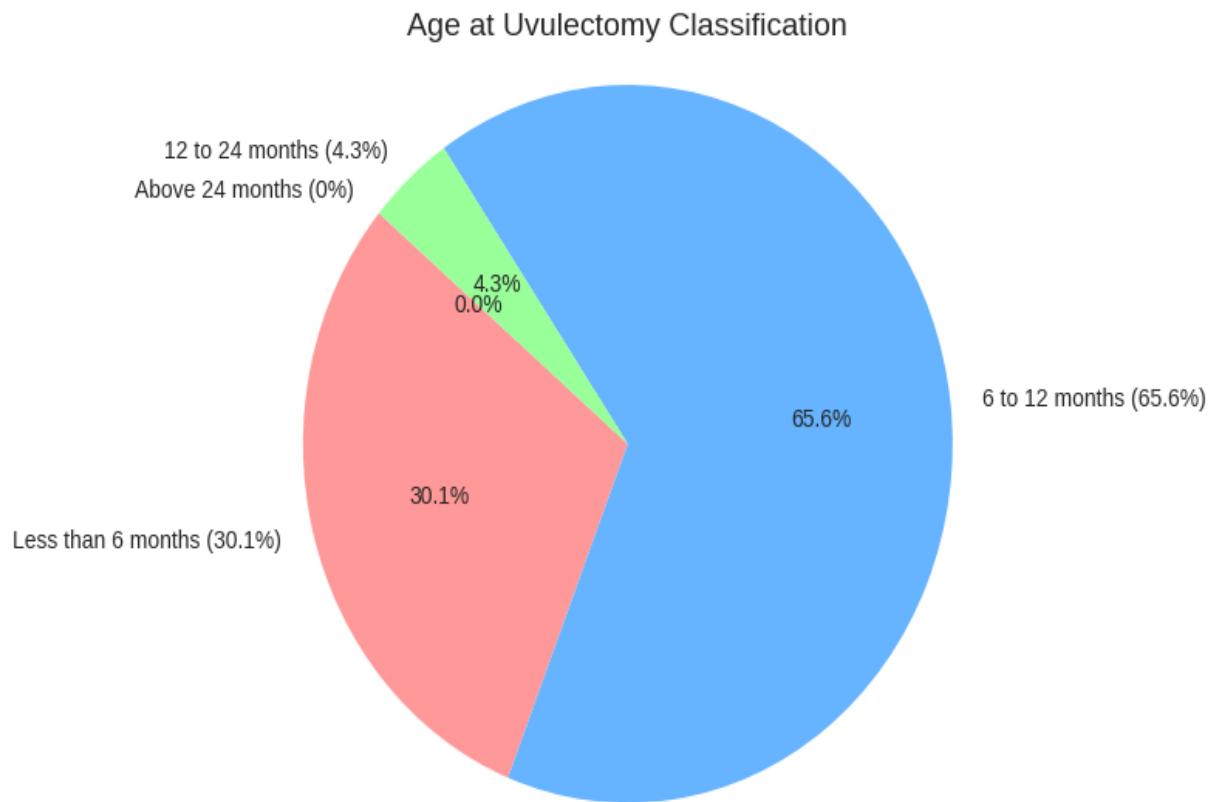


Figure 5: Age of the children at uvulectomy included in study at Eteya, Ethiopia, 2025, N=417

The data on indications shows that the most common reason was a long uvula, reported in 47 cases (50.5%). This was followed by traditional ritual practices, accounting for 29 cases (31.2%), and vomiting after feeding, cited in 14 cases (15.1%). Only 2 cases (2.2%) attributed to pharyngitis or tonsillitis and 1 case (1.1%) to recurrent cough. The decision-making shows that the majority of cases, 81 (87.1%), were decided by a traditional healer. A smaller share of decisions came from grandparents (6 cases, 6.5%), while another 6 cases (6.5%) were attributed to religious leaders together with traditional healers.

Among the 93 children who underwent uvulectomy, the overwhelming majority, 90 cases (96.8%), had the procedure performed by a traditional healer, while only 3 cases (3.2%) were carried out by grandparents. This highlights the dominant role of traditional healers in performing uvulectomy, with family members contributing minimally. The data on complications shows that 64 cases (68.8%) reported no complications, while 29 cases (31.2%) experienced complications. This indicates that although the majority of procedures did not result in adverse outcomes, nearly one-third of the children faced complications, underscoring the potential health risks associated with the practice.

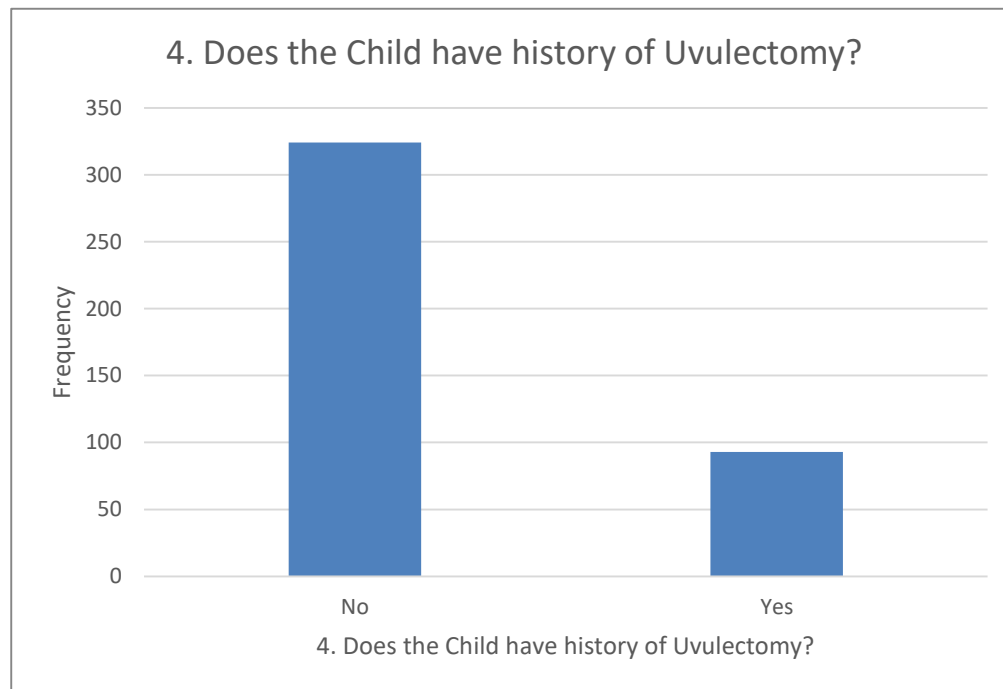


Figure 6: Child with history of Uvulectomy at Eteya, Ethiopia, 2025, N=417

Among the 29 children who experienced complications after uvulectomy, the most frequently reported problem was bleeding, which occurred in 14 cases (48.3%). This was followed by food regurgitation, reported in 6 cases (20.7%), and infection, noted in 5 cases (17.2%). A smaller proportion, 4 cases (13.8%), experienced weight loss. The data shows that in 20 cases (69.0%) the problem improved by itself without intervention. In 6 cases (20.7%), the children were referred to a hospital, while in 3 cases (10.3%), the complication was treated by the uvulectomist.

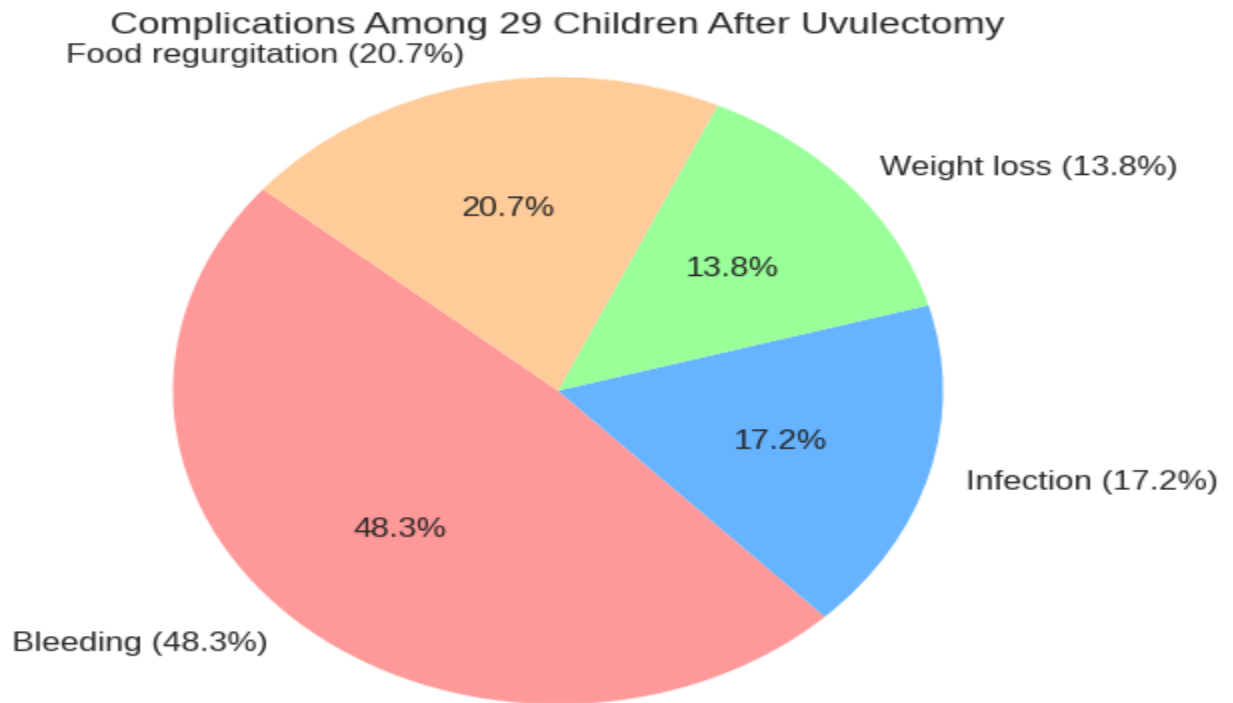


Figure 7: Complications of uvulectomy included in study at Eteya, Ethiopia, 2025, N=417

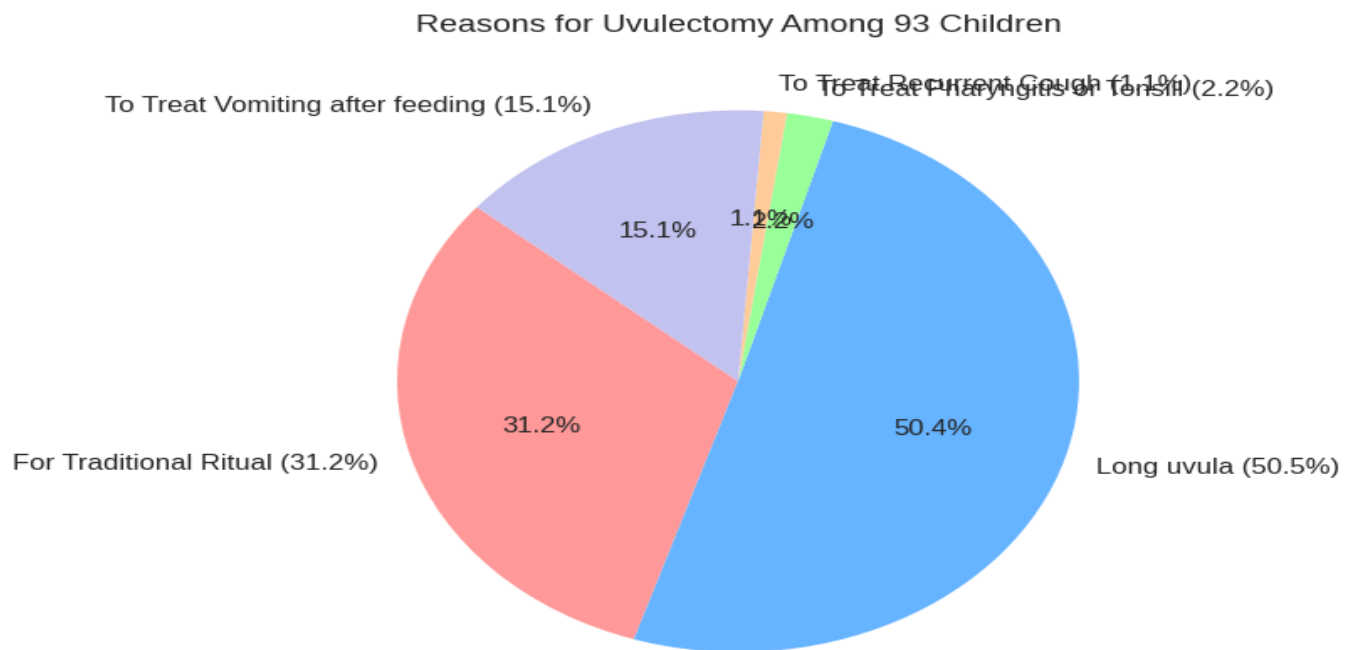


Figure 8: Reasons for uvulectomy included in study at Eteya, Ethiopia, 2025, N=417

The family history shows that 88 cases (94.6%) reported a history of uvulectomy in other siblings, while only 5 cases (5.4%) indicated that there was no such history. Out of the total, the majority, 317 individuals (76.0%), answered “I don’t know”, reflecting uncertainty or lack of a clear stance. Meanwhile, 96 respondents (23.0%) considered uvulectomy to be a good practice, showing strong cultural support among nearly one-quarter of participants. Only 4 respondents (1.0%) described it as a bad practice, indicating that explicit opposition to the procedure was very rare.

Table 2: Frequency and information related to uvulectomy at Eteya, Ethiopia, 2025, N=417

| Variable                                    | Categories                 | Frequency | Percentage |
|---------------------------------------------|----------------------------|-----------|------------|
| Age at uvulectomy (93 cases)                | Less than 6 months         | 28        | 30.1%      |
|                                             | 6–12 months                | 61        | 65.6%      |
|                                             | 12–24 months               | 4         | 4.3%       |
|                                             | Above 24 months            | 0         | 0%         |
| Reason for uvulectomy (93 cases)            | Long uvula                 | 47        | 50.5%      |
|                                             | Traditional ritual         | 29        | 31.2%      |
|                                             | Vomiting after feeding     | 14        | 15.1%      |
|                                             | Pharyngitis/Tonsillitis    | 2         | 2.2%       |
|                                             | Recurrent cough            | 1         | 1.1%       |
| Decision-maker (93 cases)                   | Traditional healer         | 81        | 87.1%      |
|                                             | Grandparents               | 6         | 6.5%       |
|                                             | Religious leaders + healer | 6         | 6.5%       |
| Performer (93 cases)                        | Traditional healer         | 90        | 96.8%      |
|                                             | Grandparents               | 3         | 3.2%       |
| Complications (93 cases)                    | No complication            | 64        | 68.8%      |
|                                             | Complication               | 29        | 31.2%      |
| Type of complication (29 cases only)        | Bleeding                   | 14        | 48.3%      |
|                                             | Food regurgitation         | 6         | 20.7%      |
|                                             | Infection                  | 5         | 17.2%      |
|                                             | Weight loss                | 4         | 13.8%      |
| Management of complications (29 cases only) | Improved by itself         | 20        | 69.0%      |
|                                             | Referred to hospital       | 6         | 20.7%      |
|                                             | Treated by uvulectomist    | 3         | 10.3%      |

|                                                    |               |     |       |
|----------------------------------------------------|---------------|-----|-------|
| History in siblings (93 cases)                     | Yes           | 88  | 94.6% |
|                                                    | No            | 5   | 5.4%  |
| Attitude toward uvulectomy (417 respondents)       | I don't know  | 317 | 76.0% |
|                                                    | Good practice | 96  | 23.0% |
|                                                    | Bad practice  | 4   | 1.0%  |
| Belief in traditional uvulectomy (417 respondents) | No            | 323 | 77.5% |
|                                                    | Yes           | 94  | 22.5% |

### 5.3. Associated factors

The place of delivery was an important protective factor against traditional uvulectomy. Children delivered in health facilities had significantly lower odds of undergoing the procedure compared to those delivered at home (AOR = 0.536, 95% CI: 0.289–0.983,  $p = 0.043$ ). Children from *Eteya 01 Kebele* were about twice as likely to undergo the procedure compared to those from *Eteya Kebele 02* (AOR = 2.053, 95% CI: 1.009–4.163,  $p = 0.048$ ). The strongest predictor was sibling history of uvulectomy. Children with siblings who had undergone the procedure were more than six times as likely to experience uvulectomy themselves (AOR = 6.549, 95% CI: 2.952–14.598,  $p < 0.001$ ). Exposure to counseling about uvulectomy was protective. Those who had been counseled were significantly less likely to undergo the procedure (AOR = 0.685, 95% CI: 0.353–0.889,  $p = 0.033$ ). Similarly, seeking health information from providers reduced the odds of uvulectomy (AOR = 0.598, 95% CI: 0.413–0.813,  $p = 0.018$ ). Finally, sex of the child did not show a statistically significant association.

Table 1: Binary logistic regression model to identify factors associated with uvulectomy at Eteya, Ethiopia, 2025.

| Variable                                    | Adjusted Odds Ratio<br>(AOR) | 95% Confidence<br>Interval | p-<br>value |
|---------------------------------------------|------------------------------|----------------------------|-------------|
| Place of delivery (Health facility vs Home) | 0.536                        | 0.289 – 0.983              | 0.043       |
| Residency (Eteya 01 vs Eteya 02)            | 2.053                        | 1.009 – 4.163              | 0.048       |
| Sibling uvulectomy history (Yes vs No)      | 6.549                        | 2.952 – 14.598             | <0.001      |
| Sex of child (Male vs Female)               | 1.214                        | 0.672 – 2.184              | 0.509       |
| Been counseled on uvulectomy (Yes vs No)    | 0.685                        | 0.353 – 0.889              | 0.033       |
| Seeking health information (Yes vs No)      | 0.598                        | 0.413 – 0.813              | 0.018       |

Table 2: Multivariate Logistic Regression Model to Identify Associated Factors of Uvulectomy at Eteya, Ethiopia, 2025, N= 417

| Predictor               | Category            | COR   | AOR   | 95% CI      | p-value |
|-------------------------|---------------------|-------|-------|-------------|---------|
| Current age of child    | Per month increase  | 1.007 | 1.006 | 1.001–1.011 | 0.012   |
| Respondent/guardian     | Mother              | 2.013 | 1.842 | 1.021–3.321 | 0.042   |
|                         | Father (ref)        | 1.000 | 1.000 | –           | –       |
|                         | Grandparent         | 2.621 | 2.412 | 1.221–4.761 | 0.021   |
|                         | Other relative      | 0.998 | 0.912 | 0.452–1.841 | 0.812   |
| Religion                | Orthodox (ref)      | 1.000 | 1.000 | –           | –       |
|                         | Muslim              | 2.512 | 2.315 | 1.221–4.391 | 0.011   |
|                         | Protestant          | 1.521 | 1.412 | 0.721–2.765 | 0.312   |
|                         | Catholic            | 1.312 | 1.221 | 0.612–2.431 | 0.291   |
|                         | Other               | 0.921 | 0.842 | 0.391–1.812 | 0.621   |
| Ethnicity               | Oromo (ref)         | 1.000 | 1.000 | –           | –       |
|                         | Amhara              | 1.341 | 1.276 | 0.712–2.285 | 0.412   |
|                         | Gurage              | 1.221 | 1.112 | 0.521–2.371 | 0.621   |
|                         | Other               | 0.921 | 0.842 | 0.391–1.812 | 0.621   |
| Education               | Illiterate (ref)    | 1.000 | 1.000 | –           | –       |
|                         | Primary             | 0.812 | 0.742 | 0.391–1.408 | 0.362   |
|                         | Secondary           | 0.672 | 0.621 | 0.312–1.234 | 0.182   |
|                         | College+            | 0.452 | 0.412 | 0.182–0.932 | 0.032   |
| Occupation              | Farmer (ref)        | 1.000 | 1.000 | –           | –       |
|                         | Merchant            | 1.672 | 1.563 | 0.812–3.012 | 0.178   |
|                         | Government employee | 0.998 | 0.932 | 0.452–1.912 | 0.842   |
|                         | Daily laborer       | 1.312 | 1.221 | 0.612–2.431 | 0.291   |
|                         | Other               | 0.921 | 0.842 | 0.391–1.812 | 0.621   |
|                         | Other (ref)         | 1.000 | 1.000 | –           | –       |
| Decision for uvulectomy | Guardian            | 4.112 | 3.912 | 2.021–7.568 | <0.001  |
|                         | Family              | 2.312 | 2.112 | 1.012–4.412 | 0.046   |
|                         | Traditional healer  | 4.812 | 4.512 | 2.112–9.612 | <0.001  |

## 6. DISCUSSION

Our study showed a magnitude of 22.3%. This is way smaller compared to a systematic review and meta analysis done in overall Ethiopia in 2023 which was 44% , whose highest prevalence was in Tigray by 63% and south Gondor zone 52.2%(11). But almost equal to a research conducted at Debre Birhan town which is the prevalence of 23.7%(23). The study done at Debre Birhan was also community based which can address those respondents with lack of health seeking behavior where uvulectomy practice is expected to be higher. In this study magnitude of uvulectomy significantly decreased as compared to research done in Tigray, and South Gondor zone(11 ,23). In Tigray the study was community based and done on urban population. The discrepancy could be mainly due to time gap of the study, study setting, effect of media, and presence of health extension worker(11).

The indication for traditional uvulectomy vary from place to place and depend on cultural belief of the people (11, 14, 20, 21). In this study the main indications were elongated uvulalong uvula, reported in 47 cases (50.5%). This was followed by traditional ritual practices, accounting for 29 cases (31.2%), and vomiting after feeding, cited in 14 cases (15.1%). Only 2 cases (2.2%) attributed to pharyngitis or tonsillitis and 1 case (1.1%) to recurrent cough. This is different from study conducted in Tigray and Debre Birhan where the most common indications were to prevent swelling, pus and rupture of the uvula(11, 23). This could be due to different explanation of nonspecific symptoms by different population.

Current age of the child, home delivery and having sibling with history of uvulectomy were significantly associated with practice of uvulectomy(11, 14, 20, 23). Children delivered in health facilities had significantly lower odds of undergoing the procedure compared to those delivered at home (AOR = 0.536, 95% CI: 0.289–0.983,  $p = 0.043$ ). Children with siblings who had undergone the procedure were more than six times as likely to experience uvulectomy themselves (AOR = 6.549, 95% CI: 2.952–14.598,  $p < 0.001$ ).

Exposure to counseling about uvulectomy was protective. Those who had been counseled were significantly less likely to undergo the procedure (AOR = 0.685, 95% CI: 0.353–0.889,  $p = 0.033$ ). Similarly, seeking health information from providers reduced the odds of uvulectomy (AOR = 0.598, 95% CI: 0.413–0.813,  $p = 0.018$ ). This is consistent with the study done at Debre Birhan(14, 20, 23).

Educational status of the guardian emerged as a protective factor. Higher education, particularly college and above, was associated with significantly lower odds of uvulectomy. Occupational status showed weaker associations. Merchant households had slightly higher odds of uvulectomy compared to farmers, but this effect was not statistically significant. Other occupational categories also did not demonstrate meaningful differences, suggesting that occupation may not be a strong determinant in this context. This is consistent with a systematic review and meta analysis done in 2023 in across Ethiopia and also with studies done in Debre Birhan and South Gondor(7, 11, 14, 19, 20, 23, 25).

## **7. LIMITATION**

The study had some important limitation that bear in mind while interpreting the results. Some complication attributed to uvulectomy such as, failure to suck and weight loss might not be taught by the respondent as it is due to uvulectomy and deaths from siblings may not be reported by respondents. Other respondents during the data collection may have given slightly different attitudes towards uvulectomy, which would have been better if the mothers or fathers attitude was recorded.

## **8. CONCLUSION AND RECOMMENDATION**

### **8.1. Conclusion**

Even if the prevalence of uvulectomy is decreasing and low as compared to other studies, it is still community problem, and decrement is not as expected according to previous studies. The main reasons to do uvulectomy were elongated uvula, vomiting and cough. Still some respondents have believed that uvulectomy is not harmful. Home delivery, current age of the child and having a sibling with history of uvulectomy are significantly associated with practice of uvulectomy. In summary, the results emphasize that reducing traditional uvulectomy requires a multi-level approach: family-centered education to break intergenerational cycles, community-tailored interventions to address cultural differences, and health system strengthening to expand counseling and institutional delivery. Together, these strategies can help shift norms and protect children from harmful traditional practices.

### **8.2. Recommendations**

Counseling about adverse effect of uvulectomy should be an integral component of postnatal care at Arsi zone. Traditional practitioners should be educated dangers of the procedure of uvulectomy, importance of uvula structure and the risk of using unsterilized instrument to transmit infection. The government should propagate laws against traditional uvulectomy and the community should expose the traditional healers who practice uvulectomy. Community based research should be done to assess prevalence of uvulectomy in the community level and associated factors of uvulectomy

Together, this researches findings emphasize that reducing uvulectomy requires a multi-level approach:

- Early childhood interventions to reduce risk as children age.
- Family-centered education targeting mothers and grandparents.
- Religious and cultural engagement to shift community norms.
- Educational empowerment, especially for women, to foster informed decision-making.
- Health system strengthening to provide counseling and trusted alternatives to traditional healer

## 9. References

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## Annex II

### Participant's information sheet and consent form

Hello, my name is Dr. Girumsew Genene and I am a General Public Health postgraduate student in Arsi University, College of Health Sciences, and department of public health. I am conducting survey on practice of traditional uvulectomy and associated factors among parents of children aged <5 years in Asella town. The questionnaire requires a maximum of 20 minutes to complete. Your participation is entirely voluntarily, and you can quit from the study any time you want. Your name and other personal identity will not be used, and hence the personal information we collect from you will completely be kept confidential and will not be disclosed to any third person other than the people conducting this study. The questions just help us to know associated factors of traditional uvulectomy and give health information to your community.

May I now begin the interview?

If yes, continue interviewing

If no, thank and stop interviewing

Participant signature \_\_\_\_\_ Date \_\_\_\_\_

Name of the interviewer \_\_\_\_\_ Sign. \_\_\_\_\_ Date \_\_\_\_\_

## Annex III

### Questionnaire

Questionnaire - English version, Serial no \_\_\_\_\_

|                                  |                                               |                                                                                                                                                                                        |
|----------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part I: Question about the child |                                               |                                                                                                                                                                                        |
| 1                                | Age of child in months                        | _____months                                                                                                                                                                            |
| 2                                | Sex of child                                  | 1. Male<br>2. Female                                                                                                                                                                   |
| 3                                | Does the Child have history of Uvulectomy?    | 1. no<br>2. yes                                                                                                                                                                        |
|                                  | If answer to Q3 is yes give answer to Q4 -Q12 |                                                                                                                                                                                        |
| 4                                | what is the age at uvulectomy                 | 1. _____days<br>2. _____months<br>3. _____yrs                                                                                                                                          |
| 5                                | Uvula examination                             | 1. Partially amputated<br>2. Completely amputated<br>3. Present and normal                                                                                                             |
| 6                                | Reason for uvulectomy (indications)           | 1. Long uvula<br>2. recurrent cough<br>3. vomiting after feeds<br>4. as a traditional ritual<br>5. Pharyngitis or tonsillitis<br>6. to prevent pharyngitis<br>7. others (specify)_____ |

|   |                                           |                                                                                                                  |
|---|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 7 | Who make the decision to have uvulectomy? | 1.father<br>2.mother<br>3. mother with father<br>4. Relative<br>5. traditional healer<br>6. other (specify)_____ |
| 8 | Who did uvulectomy?                       | 1.Traditional healer<br>2.Grand father<br>3.Other(specify)_____                                                  |

|    |                                                            |                                                                                                                           |
|----|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 9  | Were there any complication? If answer is No jump to Q 11. | 1. yes<br>2. no                                                                                                           |
| 10 | If answer to Q9 is yes, please specify                     | 1. Bleeding<br>2. Infections<br>3. Weight loss<br>5. Food regurgitation<br>6. Speech problems<br>7. Others (specify)_____ |
| 11 | If any complication, what was done?                        | 1.Referred to hospital<br>2.Treated by the uvulectomist<br>3. improve by it self<br>4.Others (specify)_____               |

|    |                                                     |                                                                                     |
|----|-----------------------------------------------------|-------------------------------------------------------------------------------------|
| 12 | Did the child improve upon uvulectomy?              | 1. yes<br>2. no                                                                     |
| 13 | place of delivery                                   | 1. home delivery<br>2. health facility                                              |
| 14 | Is there history of uvulectomy in other siblings?   | 1. yes<br>2. no                                                                     |
| 15 | If answer to q14 is yes, what were the complication | 1. bleeding<br>2. death<br>3. Infections<br>4. Weight loss<br>5. Food regurgitation |

| Part II Question about the parents |                                     |                                                                                |
|------------------------------------|-------------------------------------|--------------------------------------------------------------------------------|
| 16                                 | Who is Respondent /guardian?        | 1. Mother (age)_____<br>2. Father(age)_____<br>3. Others (specify)_____        |
| 17                                 | Age of the mother/guardian in years | _____years                                                                     |
| 18                                 | Marital status of guardian/parents  | 1. Married<br>2. Single<br>3. divorced<br>4. widowed<br>3. Other(specify)_____ |

|    |                                              |                                                                                        |
|----|----------------------------------------------|----------------------------------------------------------------------------------------|
| 19 | Educational background at time of Uvulectomy | 1. No formal education<br>2. Primary<br>3. Secondary<br>4. Postsecondary               |
| 20 | Occupational status                          | 1. Employed<br>2. Farmer<br>3. Merchant<br>4. housewife<br>5. Other (specify)_____     |
| 21 | Where do you live (wereda)                   |                                                                                        |
| 22 | Place of residence                           | 1. Urban<br>2. Rural                                                                   |
| 23 | Ethnicity                                    | 1. Oromo<br>2. Amhara<br>3. Other(specify)_____                                        |
| 24 | Religion                                     | 1. Orthodox<br>2. Muslim<br>3. Protestant<br>4. Catholic<br>5. Other<br>(specify)_____ |
| 25 | What is your attitude to uvulectomy?         | 1. Good practice<br>2. Bad practice<br>3. Don't mentioned                              |

|    |                                                                              |                                                                                                                                                                                |
|----|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 | Have you ever counseled about uvulectomy?                                    | 1. Yes<br>2. No                                                                                                                                                                |
| 27 | What were you counseled?                                                     | 1. Adverse effects of traditional uvulectomy<br>2. health care seeking during perception of uvular swelling and elongation<br>3. Benefits of uvula<br>4. Other (specify) ----- |
| 28 | Can you mention at least one adverse effect of traditional uvulectomy?       | 1. Yes<br>2. No                                                                                                                                                                |
| 29 | Did you seek any health information from your health provider on uvulectomy? | 1. Yes<br>2. No                                                                                                                                                                |
| 30 | Do you still believe in uvulectomy                                           | 1. Yes<br>2. No                                                                                                                                                                |
| 31 | If yes give reasons                                                          | _____                                                                                                                                                                          |
| 32 | If no give reasons                                                           | _____                                                                                                                                                                          |

Questionnaire: afaan oromoo version

Lakk \_\_\_\_\_

Kutaa 1 : - gaaffii waaye Daa'ima

|   |                                              |                                                                                                                                                                                 |
|---|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Umrii daa'ima ji'aan                         | Ji'a _____                                                                                                                                                                      |
| 2 | Saala                                        | 1. dhiira<br>2. Dubara                                                                                                                                                          |
| 3 | qoonqoo muratee beekaa?                      | 1. miti<br>2. eeyye                                                                                                                                                             |
|   | Deebin gaaffii 3 eeyye yoo ta'e 4-12 deebisi |                                                                                                                                                                                 |
| 4 | Yeroo qoonqon muramu umriin meeqa ture?      | 1. guyyaa _____<br>2. ji'a _____<br>3. wagga _____                                                                                                                              |
| 5 | Qorannoo qoonqoo                             | 1. guutumatti murameera<br>2. walakkaan murameera<br>3. fayyumaan jira                                                                                                          |
| 6 | Qoonqoo maalif murame?                       | 1. qoonqoon waan buutefi<br>2. Waan qufaasisef<br>3. Nyaata booda waan haqqisuuf<br>4. Qoonqoon waan dhiita'eefi<br>5. Aadaa keenya waan ta'eef<br>5. dhukkuba qoonqo ittiisuuf |
| 7 | qoonqoo akka muramu kan murteesse eenyu?     | 1. abbaa<br>2. haadha<br>3. abbaa fi haadha<br>4. fira                                                                                                                          |

|    |                                              |                                                                                                                                             |
|----|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                              | 5. kan biraa(caqasi) _____                                                                                                                  |
| 8  | eenyutu qoonqoo mure?                        | 1. ogeessa<br>2. akaakayu<br>3. Kan biraa(caqasi) _____                                                                                     |
| 9  | Eega muratee booda miidha/xaxaa irra gahe?   | 1. eeyye<br>2. Irra hin geenye                                                                                                              |
| 10 | miidhan irra gaheera yoo ta'e maalidha?      | 1. dhiiguu<br>2. infekshinii<br>3. Hir'ina qama<br>4. tetanusi<br>5. yoo nyaatu fe'amuu<br>6. rakkoo dubbachuu<br>7. Kan biraa(caqasi)_____ |
| 11 | miidha irra gaheef maaltu godhameef?         | 1. gara mana yaala deeme<br>yaalame<br>2. oggeessa bira fudhatame<br>3. ofuma isaatin fayye<br>4. kan biraa                                 |
| 12 |                                              | 1. eeyye<br>2. lakki itti hin furre                                                                                                         |
| 13 | Bakka itti dhalate                           | 1. manatti<br>2. hospitaala/buufata fayyaa                                                                                                  |
| 14 | Obbolaawwan keessa namni qoonqo murate jira? | 1. eeyye<br>2. hin jiru                                                                                                                     |

|    |                                                                                        |                                                                                                     |
|----|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 15 | Deebii gaaffii 14ffaa eeyye yoo ta'e, qoonqo eega murame booda miidhaa maaltu qaqqabe? | 1. dhiiguu<br>2. lubbuun darbuu<br>3. infekshinii/ dhukkubsachuu<br>4. hir'ina qaamaa<br>5. fe'amuu |
|----|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

Kutaa 2 Gaaffiwwan warra daa'ima ilaallatu

|    |                                                       |                                                                                                |
|----|-------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 16 | Daa'ima kan kunuunsu                                  | 1. Haadha (umrii)_____<br>2. Abbaa (umrii)_____<br>3. Kan biraa(caqasi)_____                   |
| 17 | Haala gaa'ila warraa                                  | 1. Kan waliin jiran<br>2. Kan hin fuune/heerumne<br>3. Kan biraa(caqasi)_____                  |
| 18 | Yeroo qoonqo mursiisanitti sadarka barumsa irra turan | 1. Hin baranne<br>2. Sadarkaa tokkoffa<br>3. Sadarkaa lammaffaa<br>4. Sadarkaa lammaffaa oli   |
| 19 | Haala hojii                                           | 1. Qacaramaa<br>2. Qotee bulaa<br>3. Daldalaa<br>4. Hojii dhabeessa<br>5. Kan biraa(ibsi)_____ |
| 20 | Aanaa kamirraa dhuftan?                               |                                                                                                |
| 21 | Bakka jireenya                                        | 1. Magaala<br>2. Baadiyyaa                                                                     |
| 22 | Sabummaa                                              | 1. Oromoo<br>2. Amhaara                                                                        |

|    |                                                                        |                                                                                                                                                   |
|----|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                        | 3. kan biraa(ibsi)_____                                                                                                                           |
| 23 | Amantii                                                                | 1. Orthodoxii<br>2. Musliima<br>3. Protestantii<br>4. Kaatolika<br>5. kan biraa(ibsi)_____                                                        |
| 24 | Ilaalcha qoonqo muruuf qabdan maali?                                   | 1. gochaa gaaridha<br>2. gochaa badaadha<br>3. hin beeku                                                                                          |
| 25 | Waayee qoonqoo mursiisu ogeessa fayyaa irraa gorsa argattanii beektuu? | 1. Eeyyee<br>2. Lakkii hin arganne                                                                                                                |
| 26 | Gorsa yoo argattaniirtu ta'e gorsa akkamii?                            | 1. Miidhaa qoonqoo mursiisu<br>2. Qoonqoo yoo dhukkube gara mana yaala akka fudhattan<br>3. Faaydaa rarraatuu qoonqoo<br>4. Kan biraa( ibsi)_____ |
| 27 | Yoo xiqqaate miidhaa qoonqoo                                           | 1. Eeyye                                                                                                                                          |

|    |                                                                             |                             |
|----|-----------------------------------------------------------------------------|-----------------------------|
|    | mursiisu tokko himuu dandeessu?                                             | 2. Lakki hin beeku          |
| 28 | Waayee qoonqoo mursiisu ilaallatee<br>gora ogeessa fayyaatirra ni barbaadu? | 3. Eeyye<br>4. Hin barbaadu |
| 29 | Ammallee qoonqoo mursiisun gaaridha<br>jettanii amantuu                     | 1. Eeyye<br>2. Miti         |
| 30 | Eeyye yoo jettan maalif?                                                    |                             |
| 31 | Miti yoo jettan maalifi?                                                    |                             |

## **10.Declaration**

I the undersigned MPH syudent declare that this thesis is my original work in partial fulfillment of the requirement for masters of General public health to my best knowledge.

Name of investigater \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_