

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

MOTHERS' SATISFACTION WITH DELIVERY SERVICES AND ASSOCIATED  
FACTORS AT HEALTH INSTITUTIONS IN WEST ARSI, OROMIA REGIONAL STATE,  
ETHIOPIA

BY :

AMAN URGESSA (BSc, MSc CANDIDATE)

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH  
SCIENCES SCHOOL OF ALLIED HEALTH SCIENCES DEPARTMENT OF NURSING AND  
MIDWIFERY FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF MATERNITY AND REPRODUCTIVE HEALTH

JUNE, 2016,

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# TABLE OF CONTENTS

## Contents

ACKNOWLEDGEMENTS.....	I
TABLE OF CONTENTS.....	II
LIST OF TABLES.....	V
LIST OF FIGURES.....	VI
LIST OF ACRONYMS.....	VII
ABSTRACT.....	VIII
1. INTRODUCTION.....	1
1.1. Background of the study .....	1
1.2. Statement of the problem .....	4
1.3. Significance of the study .....	6
2. LITERATURE REVIEW .....	7
2.1. Introduction .....	7
2.2. Mothers' satisfaction with delivery service and associated factors .....	9
2.2.1. Structure .....	9
2.2.2. Health institution Process .....	10
2.2.3. Delivery Out come .....	17
2.3. Conceptual framework .....	18
3. OBJECTIVE OF THE STUDY.....	19
3.1. General objective.....	19
3.2. Specific objectives .....	19
4. METHODS AND MATERIALS .....	20
4.1. Study area and Period.....	20
4.2. Study design.....	20
4.3. Source population.....	20
4.4. Study population.....	20
4.5. Inclusion and Exclusion criteria.....	20
4.5.1 Inclusion criteria .....	20
4.5.1. Exclusion criteria .....	20
4.6. Sample size determination .....	21

4.7.	Sampling procedure .....	21
4.8.	Method of data collection and Tools .....	23
4.9.	Data quality assurance .....	23
4.10.	Variables of the study .....	24
4.10.1.	Dependent variable.....	24
4.10.2.	Independent variables .....	24
4.11.	Operational definition.....	24
4.12.	Data processing and analysis .....	25
4.13.	Ethical consideration.....	25
	Ethical consideration.....	25
4.14.	Dissemination and utilization of result .....	26
5.	Result .....	27
5.1.	Socio-demographic characteristics of study population .....	27
5.2.	Obstetric history of the mothers .....	29
5.3.	Health facility and care provider related respondents' satisfaction.....	31
5.3.1.	Health facility related respondents' satisfaction .....	31
5.3.2.	Care provider related respondents' satisfaction .....	35
5.4.	Factors influencing mother's satisfaction with delivery service at health Institution .....	38
5.4.1.	Socio-demographic factors .....	38
5.4.2.	Obstetrics history factors .....	39
5.4.3.	Health facility and health care provider related factors .....	41
6.	Discussion.....	43
7.	Strength and Limitation of the study .....	46
8.	Conclusions .....	47
9.	Recommendations .....	48
10	. REFERENCE.....	49
7.	ANNEX.....	54
	ANNEX I : English version Participant Information sheet.....	54
	Annex II: Verbal Consent Form .....	55
	Annex III: English version Questionnaires.....	56
	Annex IV- Afaan Oromo version participant Informationsheet.....	61
	Annex V: Afaan Oromo Verbal Consent Form .....	62

Annex VI: Afaan Oromo Version Questionnaire ..... 63  
11. Declaration ..... 70

## LIST OF TABLES

<b>Table 1:</b> Socio demographic characteristics of mothers who gave birth in West Arsi zone, Health Institutions, March 25-April 25, 2016 -----	31
<b>Table 2:</b> Obstetric history of mothers who gave birth in West Arsi Zone health institutions, March 25-April 25, 2016-----	32
<b>Table 3:</b> Health facility related respondents' satisfaction in West Arsi Zone, Health institutions, March 25-April 25, 2016 -----	36-37
<b>Table 4:</b> Care provider related respondents' satisfaction with delivery service at health Institutions in West Arsi Zone, March 25-April 25, 2016 -----	39-40
<b>Table 5:</b> Socio-demographic and obstetric factors which associated with mothers' satisfaction With delivery services at health institutions in West Arsi Zone, March 25-April 25, 2016-----	42
<b>Table 6:</b> Health facility and Health care provider related factors which associated with mothers' Satisfaction with delivery services at health institution in West Arsi Zone, March 25 – April 25, 2016-----	44

## **LIST OF FIGURES**

Fig 1: Conceptual framework .....	18
Fig.2: Schematic presentation of sampling procedure .....	22

## **LIST OF ACRONYMS**

AAU- Addis Ababa University

ANC- Antenatal Care

BSc -Bachelor of Science

CHS-College of Health Science

ETB- Ethiopian Birr

FMoH - Federal Ministry of Health

IRB-Institutional Review board

KM- Kilometer

MDG - Millennium Development Goal

MMR-Maternal Mortality Ratio

MSc - Master of Science

SPSS- Statistical Package for Social Sciences

SSA -Sub-Saharan Africa

SVD-Spontaneous Vaginal Delivery

UNFPA- United Nations Population Fund

UNICEF, United Nations Children's Fund

US\$-United State Dollar

WHO- World Health Organization

## ABSTRACT

**Background:** Maternal mortality and morbidity are attributed to poor maternity quality of care. Globally, more than half a million women die annually as a result of complications of pregnancy and childbirth. So, at a time when global efforts to reduce maternal mortality have been stepped up, it is important to look at maternal satisfaction and factor affecting it.

**Objective:** The objective of the study was to assess the mothers' satisfaction with delivery services at health institutions and associated factors in West Arsi Zone, Oromia Region, Ethiopia, 2016.

**Methods:** A facility based cross-sectional survey with exit interview was conducted in West Arsi, Oromia Regional State, Ethiopia. Four hundred seventy seven (477) postpartum mothers were enrolled in the study. Data was checked, coded and entered to Epi-data and was exported to SPSS version 21 for analysis. Multivariate and binary logistic regression was applied to identify the relative effect of each explanatory variable on the outcome (satisfaction).

**Results:** This study finding showed that the overall satisfaction level of mothers with delivery service was 74.6%. Women who had no formal education, primary education and secondary education were less satisfied than women who had diploma and above (AOR= 0.851, 95%CI: 0.306, 0.863, AOR=0.399, 95%CI: 0.154, 0.730 and AOR=0.569, 95%CI: 0.229, 0.412) respectively. Women who had monthly income less than 650ETB were three times more satisfied with delivery service than women who had monthly income more than 1900ETB (AOR=3.294, 95% CI: 1.337, 8.114). Mothers who had assisted vaginal delivery were less satisfied than mothers who had caesarian section (AOR=0.31, 95%CI: 1.253, 4.115). Mothers whose privacy measures were maintained were six times more satisfied with their delivery service at health institution than those who did not maintain (AOR=6.988, 95%CI: 4.047, 12.066).

**Conclusion:** Only 74.6% of the mothers were satisfied from the overall level of delivery service. From this study, educational status, economical status, privacy of mothers, mode of delivery and waiting time were important predictors of level of satisfaction.

**Recommendation:** Health institutions and health personnel should work on identified factors to increase mother's satisfaction with delivery service. Future studies should consider gathering more data from a more diverse sample to address the generalizability issue.

**Keywords:** Mothers' satisfaction; Delivery service; Health institution; West Arsi zone; Ethiopia.

# 1. INTRODUCTION

## 1.1. Background of the study

Maternal mortality and morbidity are attributed to poor maternity quality of care (1). Globally, more than half a million women die annually as a result of complications of pregnancy and childbirth. Despite the effort and substantial amount of resources spent to reduce maternal mortality; every day, approximately 800 women die from preventable causes related to pregnancy and childbirth. Ninety-nine percent of these deaths occur in most developing countries like Ethiopia (2). Rates of maternal mortality are 19 times higher in developing countries than in developed. In the African Region, however, the MMR is still running at 540 per 100, 000 live births, which, combined with the high levels of fertility, translates into a lifetime risk of dying from maternal causes of 1 in 37(3). The current global MMR of 216 per 100, 000. The world's MMR fell by 44% between 1990 and 2015, missing the target of a 75% reduction and In 2015, the African Region accounts for 64% of maternal deaths(3).

Ethiopia is one among six countries which has more than 50% maternal death with 676 mothers out of 100,000 dying while giving birth. With each death there are another 20 women suffering from morbidity associated with child death (2). It is an estimated 30,000 maternal deaths take place every year. Apart from clinical causes, a number of other relevant factors such as illiteracy, lack of health care facilities, lack of health care providers and lack of transport facilities also play a major role in causing a high percentage of maternal deaths (4). In Ethiopia, like in many developing countries, the causes of maternal deaths are mainly attributed to the three delays; that is delay in seeking care, delay in reaching appropriate care and delay in receiving care. Delay in receiving care can happen due to inadequate skilled personnel in emergency obstetric care, inadequate supplies and equipment and poor quality of services (5). So, at a time when global efforts to reduce maternal mortality have been stepped up, it is important to look at maternal satisfaction and its affecting factor (6). A woman's satisfaction with the delivery service may have immediate and long-term effects on her health and subsequent utilization of the services. Providing satisfying delivery care increases service utilization (7). Maternal satisfaction has often been defined using theoretical models of patient satisfaction (8). But there is consensus that it is a multidimensional concept, influenced by a variety of factors (9). It is therefore also defined as "positive evaluation of distinct dimensions of childbirth." (10). Evidence on mothers'

'perception of and satisfaction with the quality of maternal care help to determine other aspects of care that need strengthening in health institution delivery services to support long-term demand, generate significant changes in maternal care-seeking behavior, and identify barriers that can and should be removed. Therefore understanding women's perception of care and satisfaction with services is important in this regard, as perceived quality is a key factor affecting service utilization (11).

Service utilization and positive maternal and neonatal outcomes can be significantly enhanced by improving quality of facility deliveries and making them more acceptable to women (13).

Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment, take an active role in their own care, to continue using medical care services and recommend center's services to others (14).

Satisfaction is not a pre-existing phenomenon waiting to be measured, rather a judgment people made reflecting their experience under specific circumstances. A simple and practical definition of satisfaction would be the degree to which desired goals have been achieved (15). A satisfied patient will recommend center's services expressing their satisfaction to four or five peoples, while a dissatisfied patient on the other hand will complain to twenty or more (16). Users, who perceive the quality of care in a health center to be good, are more likely to visit it again, thereby increasing demand for the service (17). User satisfaction is considered 'patient's judgment on the quality and goodness of care' (8). Patient satisfaction is thus indispensable to quality improvement with regard to design and management of health care systems (11).

Patient satisfaction with maternity services is an important outcome measure for the quality of care and provision of services and the successful maternity service non-medical factor such as cost, convenience and accessibility are important factors which influence the satisfaction level of the services by the women (18). Also, patients' perceptions about quality of care are significant since they influence patients' health outcomes and therefore, women satisfaction is increasingly accepted as an important dimension of quality of care (19). Particularly in maternity care services, satisfaction with care is an important aspect. Hence it becomes clear that health professionals and women must work together for setting aims (20), particularly in this current era of competition and consumerism.

The Factors influencing the satisfaction level have also been identified which include education of the women, place of residence and their monthly income; these are non-medical factors, one of which is mode of delivery (21).

## 1.2. Statement of the problem

Globally, more than half a million women die annually as a result of complications of pregnancy and childbirth. Ninety-nine percent of these deaths occur in most developing countries like Ethiopia (2). Delay in receiving care can happen due to inadequate skilled personnel in emergency obstetric care, inadequate supplies and equipment and poor quality of services (5). WHO estimates that 580,000 women of reproductive age die each year from complications arising from pregnancy, and a high proportion of these deaths occur in Sub-Saharan Africa (SSA). The ratio of maternal mortality in the region is one of the highest in the world, reaching levels of 686 per 100,000 live births at areas where women play a principal role in the rearing of children and the management of family affairs, and their loss from maternity-related causes is a significant social and personal tragedy (12).

Ethiopia is one among six countries which has more than 50% maternal death with 676 mothers out of 100,000 dying while giving birth. With each death there are another 20 women suffering from morbidity associated with child death (2). It is an estimated 30,000 maternal deaths take place every year. Apart from clinical causes, a number of other relevant factors such as illiteracy, lack of health care facilities, lack of health care providers and lack of transport facilities also play a major role in causing a high percentage of maternal deaths (4).

Owing to considerable gaps in services, developing countries emphasize on increasing service availability and maintaining acceptable quality standards (22). Understanding maternal perception of care and satisfaction with services is important in this regard, as perceived quality is a key factor affecting service utilization (11). Users, who perceive the quality of care in a health center to be good, are more likely to visit it again, thereby increasing demand for the service (17). Maternal satisfaction has often been defined using theoretical models of patient satisfaction (23).

So, assessment of satisfaction with maternity services is crucial, and psychometrically sound measures are needed if this is to inform health practices on mothers' satisfaction with delivery services and associated factors for health care providers, West Arsi Zone Health office, NGOs working on the maternity in the Zone and other stakeholders. Satisfaction is a complicated construct involving an array of factors, including the services provider knowledge, clinical and communication skills, personal attributes, accessibility, convenience of location and surrounding

area, office resource availability, continuity of care, efficacy, health insurance approval, or financial arrangements and personal control during childbirth is an important factor related to the women's satisfaction with the childbirth experience. Helping women to increase their personal control during labour and birth may increase the women's childbirth satisfaction.

This study was assessed mothers' satisfaction with delivery services at health institution and associated factors to answer the question of the prevalence of mothers' satisfaction with delivery services at health institutions and associated factors in West Arsi Zone.

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

Now days, assessing customer satisfaction with deliver services is considered an important components of health care provider quality assurance program. In Ethiopia the studies conducted on mothers' satisfaction with delivery services and associated factors were very limited, even the conducted studies were done only at Hospitals setting and not including Health center setting. In west Arsi Zone there is no any study which conducted on patient satisfaction; therefore this study will gives the current status of mothers' satisfaction with delivery services by including not only the hospitals setting but also, the health centers setting.

Thus, the present study finding will be provided clear information about mothers 'satisfaction with delivery services and associated factor for health care providers working at study setting health institution, West Arsi Zone Health office, police makers, researchers and community onprevalenceof mothers' satisfaction with delivery services and associated factors affecting the mothers satisfaction, that will be helpful to fill research knowledge gaps which ultimately contributes to enhance quality of patient Services in the health institution and improve the level of maternal' satisfaction in West Arsi zone, Oromia Region which will be further contribute to reduce maternal mortality rate in Ethiopia.

## 2. LITERATURE REVIEW

### 2.1. Introduction

Since the early 1990s, because complaints about health care have increased, professionals have begun to measure patient satisfaction. Patient satisfaction has become an integral part of hospital/clinic management strategies across the globe (24). Maternal satisfaction has often been defined using theoretical models of patient satisfaction (8). But there is consensus that it is a multidimensional concept, influenced by a variety of factors (8). It has often been defined using theoretical models of patient satisfaction (11). It is therefore also defined as “positive evaluation of distinct dimensions of childbirth” (10).

Factors affecting maternal satisfaction covered all dimensions of care across structure, process and outcome. Structural elements included good physical environment, cleanliness, and availability of adequate human resources, medicines and supplies) and Process factors affecting maternal satisfaction included interpersonal behavior, privacy, promptness, cognitive care, perceived provider competency and emotional support. Whereas Outcome related factors affecting maternal satisfaction are health status of the mother and newborn. (11). As per of literature review from developing countries showed ,process of care dominated the factors affecting maternal satisfaction in developing countries. And also, interpersonal behavior is the most widely reported factors, with the largest body of evidence generated around provider behavior in terms of courtesy and non-abuse and other aspects of interpersonal behavior included therapeutic communication, staff confidence and competence and encouragement to laboring women and access, cost, socio-economic status and reproductive history are also influenced perceived maternal satisfaction (4).

Labor and childbirth is a particularly vulnerability time for women and the need for attention and care is very important (23). It is but natural that women attach great value to the care they receive during this time. Their satisfaction hinges upon timely and ‘good’ quality care, as per the woman’s expectations. The perception of ‘good’ care is therefore a significant factor of maternal satisfaction, with four sub-themes emerging as major factors length of consultation, completeness of procedures, and perception of negligent care (which diminishes

Satisfaction) and perceived provider competence. Maintenance of privacy and confidentiality was also a marker of good care and was another important determinant of satisfaction. Provider's respect for privacy and confidentiality emerged as a statistically significant predictor of maternal satisfaction (25). Understanding maternal perception of care and satisfaction with services is important in this regard, as perceived quality is a key factor affecting service utilization (10). Users, who perceive the quality of care in a health center to be good, are more likely to visit it again, thereby increasing demand for the service (16, 27).

According to the study conducted in Pakistan showed women satisfaction with maternity service was assessed with factors of general satisfaction, technical quality, interpersonal aspect, communication, financial aspect. Seventy percent (70%) of the women were satisfied with the services given for them and 30% dissatisfied with the services and 56% of women were satisfied with technical quality like the availability of equipment required for complete medical checkup, competency of medical doctors/Midwives, and satisfaction of women with the doctor's ability and 44% of women were not satisfied(18).

The study conducted in Amhara Region, Ethiopia, found women's satisfaction with delivery care was associated with wanted status of the pregnancy, immediate maternal condition after delivery, waiting time to see the health worker, availability of waiting area, care providers' measure taken to assure privacy during examinations, and amount of cost paid for service and from this study, 61.9% of mothers were satisfied with delivery care, 46.7% of them were satisfied with privacy related service, 51.4% of them were satisfied with health facility distance travelled and (52.7%) of them were satisfied with amount of cost they paid for the service (28).

Another study which conducted in Amhara region showed 74.9% of mothers satisfied with service given for them and others unsatisfied with the service given for them (55).

## **2.2. Mothers' satisfaction with delivery service and associated factors**

### **2.2.1. Structure**

#### **Physical environment**

Good physical environment and efficient management are significant in women's positive assessment of the health facility and maternal care services(42).The study conducted in Bangladesh and India showed good building infrastructure with water supply, electricity, beds, cleanliness, adequate room space, seating arrangement and waiting areas, are as 'good' were significantly more satisfied with care than those who rated the services as 'poor' and efficient management improved patient's access to services and streamlined patient consultations (27, 36).

Convenience of access to maternity care is an important factors affecting of mothers' satisfaction, as reported by a literature review from developing countries (28). This access included both distance and connectivity (availability of public transport between residence and facility) satisfaction with care in Iran and Ghana (24, 30). The study done in Assela Hospital revealed that, among the respondents' 258(64.8%) of the mothers were satisfied with the distance travelled and 140 (35.2%) of the mothers unsatisfied with the distance travelled to reached the delivery services (31) and from the study conducted at Amhara region (51.4%) of mothers were satisfied with the health facility distance related while others mothers were dissatisfied with the distance they traveled (28).

#### **Availability of medicines, supplies and services**

Availability of prescription drugs, essential equipment like blood pressure monitors or thermometers, lab services and emergency supplies like blood and transfusion services, were reported as significant predictors of satisfaction with care in studies in India, Oman, Nigeria, Gambia and Uganda (29).Free medicines in the facility significantly enhanced maternal satisfaction with care as the study done in Gambia (21). According to the study conducted in Pakistan Access, Availability and Convenience of the services 82% of women were satisfied while 18% were not satisfied (18). Another study conducted in South Africa also revealed that access to drugs was one of the most suggested priorities for improvement of public health services to bring client satisfaction at health institution (31).

The study conducted at Jimma University Referral Hospital showed that lack of drugs and supplies in the hospital pharmacies was the major problem, where about 70% of the clients were not get some or all of the ordered drugs from the Hospital's Pharmacy with prescription (56).

### **Cleanliness of Health Institution**

Cleanliness, good housekeeping services and maintenance of hygiene were reported as determinants of satisfaction in studies in Bangladesh, Gambia, Thailand, India and Iran (28). Good housekeeping service emerged as a significant predictor of satisfaction with nursing care in a facility-based study in Thailand (52). The studies conducted in Ghana and Kenya showed other factors like cleanliness is another important structural factors affecting of maternal satisfaction (24, 33). Eighty point seven percent (80.7%) of the mothers' were satisfied with services provided for them and among dissatisfaction reported the highest (42.3%) by cleanliness and access of toilet according the study conducted in Assela Hospital (32).

### **Availability and adequacy of human resources**

Availability of doctors and nurses, especially during emergencies, was considered a prerequisite for good care in India (36). Non-availability of nursing personnel and inadequacy of staff to attend to women, especially during labor, was reported as a cause for dissatisfaction with services in Ghana and Nigeria (42, 45).

#### **2.2.2. Health institution Process**

The process related factors will affect mother's satisfaction with delivery services at health institution. These process affecting factors included interpersonal behavior, privacy, promptness, cognitive care, perceived provider competency and emotional support (29).

### **Knowledge and advice**

Knowledge of the care provider is the most important part of domain which required during care provision and giving valuable information for clients as found from the study conducted in Pakistan and 54% of women were not satisfied whereas 46% women were satisfied on the knowledge and advices given for mothers' during delivery services from this study (18).

## **Communication**

The studies conducted in Sri Lanka and Côte d'Ivoire were found that provider communication to the client has a significant impact on client satisfaction (34, 35). Therapeutic communication (listening, politeness, prompt pain relief, kindness, approachability and smiling demeanor), caring behavior (attentive to needs, making clients feel accepted and coaxing clients) and interpersonal skills of staff (staff confidence and competence) were significant themes that were identified as influencing client's satisfaction with care in Ghana and Lebanon (36,37).

The communication between the care provider and client whether they are able to understand what doctors/midwives explained to them and do the doctors listen to them when they need to understand something affected the mothers' satisfaction with delivery services according to the study conducted in Pakistan. 79% of women were satisfied whereas 21% of women were not satisfied with the communication factor as per finding (18). The study done by American journal of obstetrics and gynecology demonstrated client satisfaction is largely influenced by the involvement of the client on the decision of her treatment and the quality of client-care provider relationship (11). A study conducted in South Africa revealed lack of communication and relevant messages to patients were identified as an important issue impacting on quality thus affecting client satisfaction (31). This aspect appeared much more important to patients than technical competence of providers in Bangladesh (25). The use of praising words by the medical staff or by the obstetrician or midwife during delivery encouraged women and boosted their self-esteem and chose to repeat the same provider for their next delivery if s/he was comforting and encouraging to them, as reported in a study in Lebanon (37). On the other hand, staff unfriendliness, negative attitude and impatience were a major cause for dissatisfaction with services and avoidance of use in Nigeria, Zambia, Pakistan, Ghana and Turkey as evidenced from literature review from developing countries (29).

## **Privacy during examination**

Environmental factor was found to be one of the major factors affecting client satisfaction outcomes. Of these dimensions, the clients' freedom in the ward and Client privacy yielded a complete satisfaction of 40.2% and 9.2% respectively (7). 10.8% of mothers were satisfied with respect for privacy in Sri Lanka (34). Privacy is a key requirement of women utilizing maternal care services, for physical examinations as well as the delivery process itself. A sense of shame

is also attached to the process of physical examination and also procedures like perineal shaving, thereby increasing their discomfort and diminishing their satisfaction levels (38). Maintenance of privacy via a separate room or screen for examination or delivery was a significant factors affecting of satisfaction with maternal health services in Bangladesh and India (25, 36). Lack of confidentiality during checkups and deliveries, on the other hand, caused dissatisfaction with services in Nigeria and Cuba (38, 39). These study found that ,Privacy during examinations affected maternal satisfaction, among the mother kept their privacy during examination 179(42.9%) of them satisfied 40(9.6%) with dissatisfied with services while, among those privacy was did not kept for them only 79(18.9%) satisfied and majority 119(28.6%) dissatisfied with the services provided for them.

### **Waiting time before seeing a doctor or Midwives**

As per a literature review found from developing countries showed, prolonged waiting time is an important factors affecting of satisfaction with services and also figures prominently in women's recollections of deficiency in services in Argentina, Gambia, Iran, Malawi, Nigeria, Sri Lanka, Saudi Arabia and Uganda (29). And also study conducted in Bangladesh showed, clients considered reducing waiting time more important than increasing consultation time (25).

Waiting time before seeing a doctor or a nurse affected the delivery services satisfaction as per study conducted in Amhara, Ethiopia found that women who got services less than one hour (1hr) were satisfied than women who got services more than one hours (1hr) 247(59.2%), 135(32.4%) respectively (28).

Another study conducted in Addis Ababa, Ethiopia found that, Consultation time, medical care by the attending doctor and nursing care are rated to have higher rate of overall satisfaction of 92.9%, 88.4% and 93.4% respectively are the factors that affected mother's satisfaction (39).

The study conducted in in Assela Hospital showed that all the respondents 294 (74%) of mothers waiting time to see a doctor was less than one hour, 54 was 1-2 hours and 50 were greater than two hours. From this study, 78.1%t of the delivering mothers was satisfied with the waiting time to see a doctor while the rest were not satisfied (32).

### **The Attitude of the health workers / Interpersonal Aspect**

Attitude of the care givers affect the mothers 'satisfaction with delivery services as found from study done in Pakistan, of 75% were satisfied and 25% of women were not satisfied with the interpersonal aspect/attitude (21). Clients need a clear understanding of any obstetric interventions and clear consent for the intended procedures. Clients also need a proper interpretation of their opinion in the process of their care (17, 23).The Attitude of the health workers played a great role in client satisfaction during care provision according to the studies done in Addis Ababa, Ethiopia and Sri Lanka which was 41.6% and 40.7% 31.4% and 21.1 %) respectively (34, 40).

### **Perception of 'good' care or provider competency**

Women are more satisfied with maternal health services when they perceived the technical quality of care to be 'good' or the provider to be technically competent. Completeness of procedures, good medicine and advice were perceived as 'good care 'as per study conducted in India (41). Lack of congruence between care expected and care actually received also determined women's level of satisfaction, as found in a study in Ghana (24). Length of consultation was a significant predictor of maternal satisfaction in studies in Bangladesh, China, Vietnam, Nigeria, India, Iran and Gambia (11). Perceived neglect in care, including delay in attending to the client and not involving the client in care, poor handling during labor and mistakes in test results also adversely affected satisfaction with services in Ghana and Nigeria (24, 39). Overcrowding and unnecessarily prolonged facility stays also reduced maternal satisfaction in Ghana and Malawi (23, 42). Perceived competence was associated with provider qualification or previous experience, and was a significant factor in maternal satisfaction in Vietnam, Cuba, Thailand, Nigeria, Kenya, India and China (29).Increasing documentation of neglect and intentional abuse and humiliation of women during child birth in countries across the world indicates that this is indeed a major factor inhibiting uptake of services (36, 54).

### **Cognitive and Emotional support**

Cognitive and emotional support plays a crucial role in influencing women's satisfaction with care during pregnancy and childbirth. Information and advice, along with emotional support, comfort measures and communication may reduce anxiety and fear and associated adverse effects during labor (43).Provision of cognitive support through effective communication and

sharing adequate information with women about their condition or the care required, emerged as a critical determinant of satisfaction with maternal care, as seen in studies in Ghana and Nigeria (26, 44). In a study in Oman, women's satisfaction related as much to the content of messages as to the process of imparting it, such as the provider's commitment, availability of time and overcoming any language barrier (5). Counseling by the provider, the process of imparting information, consultation in decisions regarding care, and transparent mechanisms for registering patient feedback were all important aspects of cognitive support (34, 45). In Ghana, clients who had information during labor felt involved in their care and this contributed to their satisfaction with care (24)

### **Preference for female providers and birth companionship**

Preference for female provider for maternity care could be a culturally influenced determinant of maternal satisfaction as it would decrease the sense of embarrassment and fear which parturient women may feel in a facility (33). The WHO (World Health Organization) has recommended that the parturient woman should be accompanied by people whom she trusts and feels safe with, such as family members (41). There is significant evidence from developing countries around shorter labor and lesser need for pain relief associated with psychosocial support by a birth companion (46). Support provided by a companion of the woman's choice during labor and delivery has a significant positive effect on her satisfaction with the overall birth experience, as found in studies in Brazil and Malawi (23, 44). The way the companion of client were treated by the staff and acceptance of clients' opinion by the care provider yielded complete satisfaction rate of 10.9% and 6.9% respectively and such lower satisfaction with respect to the companion's treatment and opinion acceptance might ultimately affect client compliance and treatment outcome(7).

Positive benefits of birth companionship was evidenced in terms of shorter labor, lesser need for pain relief and greater birth satisfaction among women with birth companions during labor in studies in, United Arab Emirates and Jordan (46,47). According to a review of literature from developing countries revealed preference for female providers emerged as a significant determinant of satisfaction with care in developing country contexts, as evidenced in studies in Nigeria, Lebanon, Senegal, India, Saudi Arabia and Thailand (29). A study in India found higher

preference for female doctors on account of greater comfort felt by women in communicating with them, greater sense of privacy and the perception that lady doctors are more patient, 'deliver properly' and are good for examinations (41). Women in Saudi Arabia and Thailand also felt that female providers have greater understanding of the physical and psychological needs of pregnant women (48). In a non-randomized comparison study in Jordan it was found that women who had support from a female relative during labor were less likely to use pharmacological pain relief and more likely to report a good birth experience (47). In a study in Zambia one of the major complaints with services was 'being left alone in labor too long' (49).

### **Cost of care /financial aspect**

A review of literature from developing countries showed a significant association between cost and maternal satisfaction and the utilization of care in both home and institutional births (29).

Affordable care was a significant determinant of satisfaction with maternal care services in health institution deliveries in Kenya (4). Economic status (monthly income) of the mother also affected delivery satisfaction as evidenced from study conducted in Amhara region off which, mothers who have monthly income more than 765ETB (47.8USD) 75%(18.0) satisfied and 84%(20.1) were dissatisfied (28) .

Amount paid to the service affected women delivery services satisfaction at health institution as per studies conducted in Amhara, Ethiopia and Srilanka. Women who paid less than 157 ETB (Ethiopian Birr) 154(36.9%) were satisfied and 68(16.4%) dissatisfied (28, 41) and the study done in Pakistan also identified the satisfaction with the cost they had to bare for utilizing the services. From these mothers', 42 % of women were not satisfied with services due to the cost they paid, while 58% of women were satisfied (21).

Women's health seeking behavior is also influenced by the cost of maternity services and their capacity to cover the expected expenses. For instance, a substantial proportion of antenatal care users did not deliver or use postnatal care by a skilled provider. On the one hand, maternity services, especially delivery care, are expensive. Studies indicate that delivery care use among antenatal care users is highly correlated with wealth and besides overall cost of care, affordable

drugs, availability of finance for healthcare and transparency in financial transactions also influenced (16).

### **Socio-economic and cultural factors**

Maternal characteristics will also affect women's perceived satisfaction with care. Maternal age and education is positively associated with maternal satisfaction, possibly because of greater experience and maturity (4.). Studies conducted in Kenya and Sri Lanka found that multiparous women are more satisfied with care as compared to primiparae women (7, 34). According to the study done in Amhara region, Filegot Hospital, Ethiopia, Mothers whose age less than 20, and 20–34 years were less likely to satisfy with the care during child birth compared to mothers whose age was above 35 years (AOR = 0.17, 95 % CI 0.04–0.68, and AOR = 0.13.95 % CI 0.13–0.85)(55).

Women's levels of stress during delivery and in the postpartum period would also significantly influenced satisfaction with care according research conducted in Thailand (50). The study conducted in Sri Lanka, Kenya and Nigeria showed that socio-economic and cultural factors, ethnicity influenced maternal satisfaction and religion emerged significant in a study respectively (26, 34, 45). Mothers' educational levels negatively affected their satisfaction with maternal care as per studies in Ghana, Nigeria, and Zambia (24, 45, 51). And also, mother's expectation of baby's gender affected satisfaction with services in studies in Thailand and Saudi Arabia (52, 53). Positive impact of the first experience of care influenced perceived satisfaction with care, as diminishing satisfaction was found with increasing familiarity in a facility-based study in Nigeria (15).

Maternal satisfaction is significantly determined by whether the pregnancy is intended or not (7). From the study conducted at Amhara region, among unwanted pregnancy gave birth, majority of mothers' 63 (15.1%) unsatisfied and 46(11.0%) of them were satisfied and Marital status of the mother also affected satisfaction at delivery services as found from this study,4.8% of them unsatisfied (28).

Prenatal counseling is a major factor affecting of satisfaction, as it is critical for a woman's understanding of her health condition and her participation in the pregnancy and delivery process (16). Mothers those who had ANC follow up more satisfied than those did not follow up ANC

227(54.4%), 31(7.4) 35(8.4%) respectively (27,3). But, the study conducted in Filegot Hiwot Referral Hospital, ,showed women who did not attend ANC were more than 3 times likely to satisfy with care compared to women attended ANC (AOR = 3.75, 95 % CI 1.12–12.59) (55) which contradicted with the above.

### **2.2.3. Delivery Out come**

The outcome and mode of delivery of delivery affected mother's satisfaction with delivery services according to studies done in;Ghana, India, Gambia, and Thailand (29).Accordingto the study conducted in Amhara, Ethiopia mothers, who gave birth by SVD (spontaneous Vaginal Delivery) (142(34%) more satisfied than assisted delivery70 (16.8%). Mothers with complications who gave birth less satisfied with deliver service as compared with mothers without complication of which 57(13.7%) unsatisfied and 32(7.7 %) satisfied andOthers factor affecting Mother's satisfaction with delivery service(28).

In summary,the review of the literature providesmothers' satisfaction with delivery services will be affected with multi dimensions of factors .In the literature there was contradictory information about factors associated with childbirth satisfaction.Some researchers have found a mother those who had ANC follow up more satisfied than those did not follow up ANC(27,3)whereas others found mother those did not attend ANC were more than 3 times likely to satisfy with care compared to women attended ANC.

### 2.3. Conceptual framework

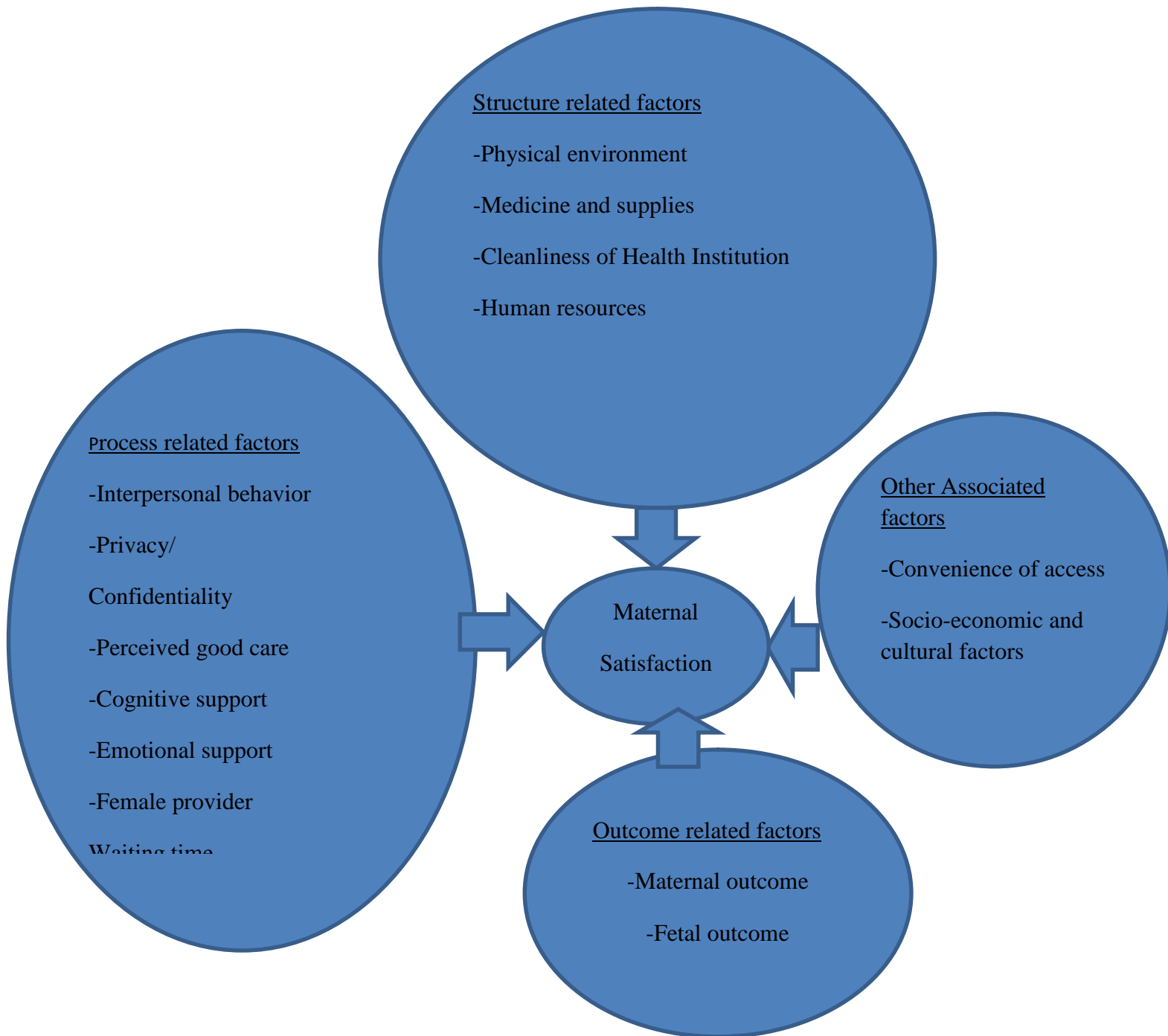


Fig.2 conceptual frame work on Assessment of mothers' satisfaction with delivery services and associated factors (28)

### **3. OBJECTIVE OF THE STUDY**

#### **3.1. General objective**

- To assess the mothers' satisfaction with delivery services at health institutions and associated factors in West Arsi Zone, Oromia Region, Ethiopia, 2016

#### **3.2. Specific objectives**

- To assess the mothers' satisfaction with delivery services at health institution.
- To identify associated factors with mothers' satisfaction with delivery services at health institution.

## **4. METHODS AND MATERIALS**

### **4.1. Study area and Period**

This study was conducted in West Arsi Zone, Oromia Regional state, Ethiopia in Governmental Health institution. The Zone has seven woreda and one city administration, Shashemanne which is allocated 275 kilometers from Addis Ababa. West Arsi Zone is in Oromia Regional State located in the South East part of Ethiopia.

Currently in West Arsi Zone, there are around seventy eight Health centers and four Hospitals of which one Zonal Hospital and two districts and one nongovernmental hospital, which are functional during this study period for total population of 2,450,413, of which 1,223,981 are males and 1,226,432 are females. From this total population, there are around 541,541 mothers in reproductive age group and among them around 85,029 of them pregnant mothers. The study period was from March 25/03/2016 to April 25/04/ 2016.

### **4.2. Study design**

Across-sectional study design was used to assess mothers' satisfaction and associated factors affecting mothers' satisfaction with delivery services among mothers, who gave birth in Governmental health institutions in West Arsi Zone, between March 25/03/2016 to April 25/04/ 2016.

### **4.3. Source population**

All women who visited, West Arsi Zone Governmental Health institutions for the delivery service were taken as a source of population, March 25/03/2016 to April 25/04/ 2016.

### **4.4. Study population**

All pregnant mothers who had given birth in selected Governmental Health institutions and fulfilled the selection criteria were study population.

### **4.5. Inclusion and Exclusion criteria**

**4.5.1 Inclusion criteria:** Pregnant mothers who had given birth in selected Governmental Health institutions and who were discharged from the postnatal ward; during the data collection period were the study subjects.

**4.5.1. Exclusion criteria:** Postnatal mothers who were mentally or critically ill were not included in the study subjects.

#### 4.6. Sample size determination

Sample size was determined using the formula for single population proportion based on the following assumptions.  $n = \frac{(Z /2)^2 P (1-P)}{d^2}$

Where: n= is the size of the sample

Z /2= is the standard normal value corresponding to the desired level of confidence

d=error of precision

P=is the estimated proportion of an attribute that is present in the population.

#### Assumptions

1. Prevalence of Mothers satisfaction with delivery service 74.9% from Felege Hiwot Referral Hospital, Bahir Dar city, Northwest Ethiopia, (56).
2. Margin of error d= 5% is accepted
3. A confidence interval of 95% is assumed (Z /2=1.96).

$$n = \frac{(1.96)^2 0.749(1-0.749)}{(0.05)^2} = 289$$

The calculated sample is 289 plus a non-response rate of 10%=318, plus considering a design effect of 1.5 (318x1.5), a total of 477women are required.

#### 4.7. Sampling procedure

Multistage sampling technique was used to get the required study subjects. The Health centers and Hospitals were selected using simple random sampling. From these Health institutions, the Health centers and Hospitals were selected using simple random sampling by lottery method. Number of study subjects in each Hospital and Health centers were determined by proportion to population size from reviewing the first and second quarter report of 2008 EFY delivery services as showed below fig.III. The study participants were selected purposefully by convenience sampling when the mothers were discharged from post natal unit after delivery period.

**Proportional allocation:** allocating sampling proportional to the total population of each stratum

using the formula:  $n_i = \frac{n}{N} * N_i$

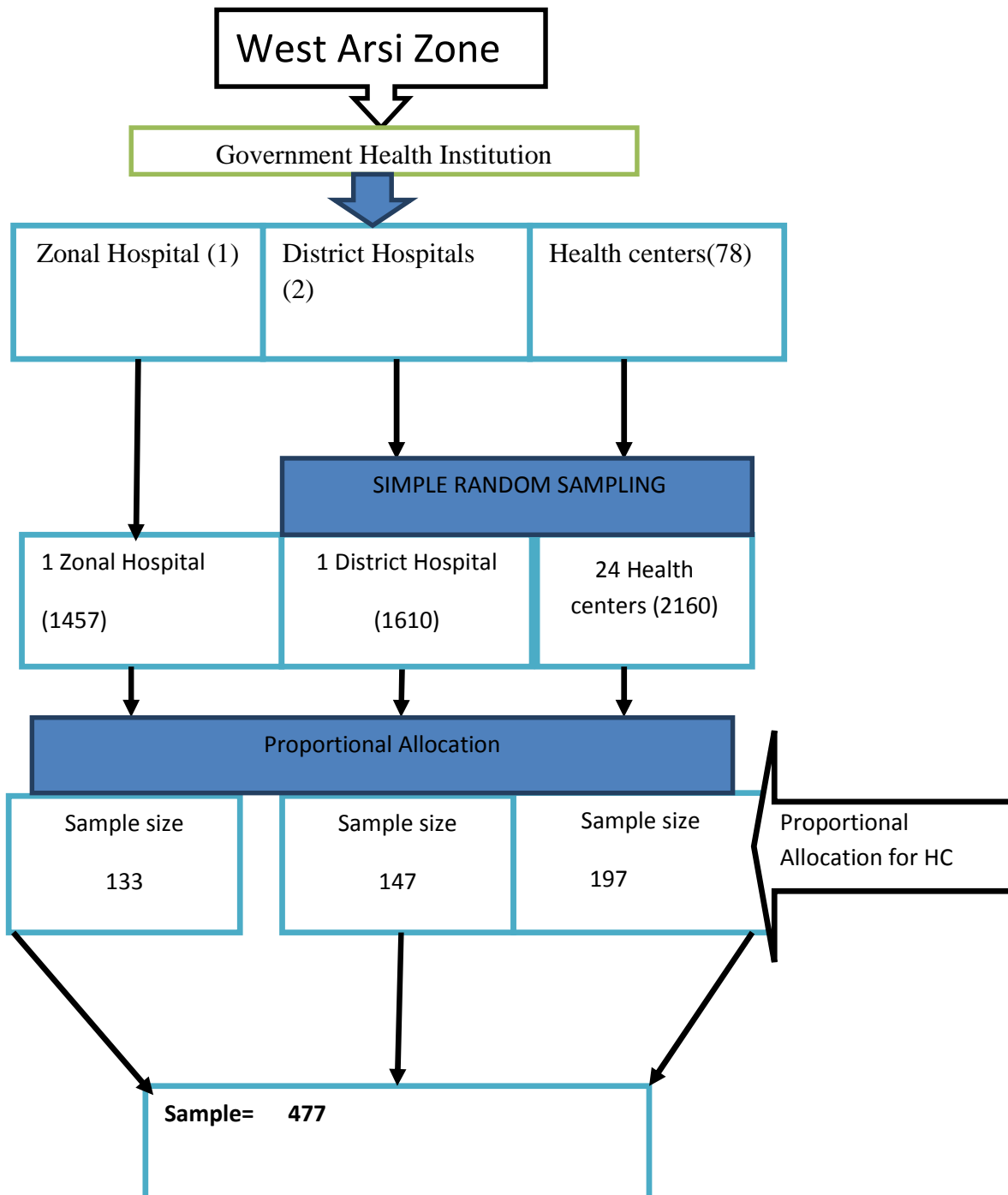
Where n=total sample size to be selected

N=total population

N<sub>i</sub> = total population of each strata

n<sub>i</sub> =sample size from each strata

Fig.III: Schematic Diagram of sampling framework



#### **4.8. Method of data collection and Tools**

Data was collected using structured, exit interview questionnaire having three parts, the first containing Socio demographic characteristics of delivering mothers. The second part Obstetric history of delivering mothers, to measure mothers satisfaction with delivery service. The third parts containing respondents' satisfaction on health facility process, structure and distance traveled related. Delivery service satisfaction related questions were adopted and modified from the Donabedian quality assessment framework (8) and presented using a 5- scale likert scale (1- very dissatisfied, 2-dissatisfied, 3-neutral, 4-satisfied, and 5-very satisfied). The first draft of the English questionnaire was translated to Afaan Oromo language by language expert translator then back to English language to check for consistency.

The calculated sample size was used to take the study subjects from the post natal unit. Mothers that were ready for the discharge service were had an exit interview whenever legible as per the criteria. Seven Diploma holder Nurses were selected to collect the data; and two BSC holders Nurse were selected as a supervisors from other area outside of study site. The selected data collectors and supervisor were trained on the objective; benefit of the study, individual's right, informed consent and techniques of the interview for one day.

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

To assure the data quality high emphasis was given in designing data collection instrument especially socio-demographic and mothers' satisfaction parts. Before starting the actual survey, the questionnaire was pre-tested on 24 postnatal mothers, the five percent of sample from the Hospital and Health centers which was not included in the study. And interview was conducted in private room.

Throughout the course of the data collection, interviewers were supervised at each site, regular meetings was held between the data collectors and the principal investigator together in which problematic issues arising from interviews which was conducted and mistakes found during editing was discussed and decisions was reached. The collected data was reviewed and checked for completeness before data entry; the incomplete data was discarded. Data entry format template was produced and programmed. Double entry was done on 10% questionnaires to check consistency.

## 4.10. Variables of the study

### 4.10.1. Dependent variable

- ✓ Mothers' satisfaction

### 4.10.2. Independent variables

- ✓ Health institution Structure and process variables:

Waiting time, availability of adequate human resources, medicines and supplies,  
Physical environment, sex, Attitude and relationship with mothers' during service

- ✓ **Socio-demographic and others variables:**

Age, ethnic group, religion, marital status, occupation, Educational status, Geographic distance, cost of services, referral coordination between facilities

- ✓ **Obstetric History:**

No of deliveries (parity), mode of delivery, maternal outcome and fetal outcome

## 4.11. Operational definition

### Conceptual definition

**Maternal satisfaction:** mothers need or desire.

**Satisfaction:** Attaining one's need or desire.

### Operational definition

**Satisfied:** individuals scored 75 % and more from eighteen (18) items of Patient Satisfaction Questionnaire, are categorized under "satisfied" for the overall satisfaction level and for each responses of 'very satisfied' and 'satisfied' are classified as **satisfied**

**Unsatisfied:** individuals scored below 75 % from eighteen (14) items of Patient Satisfaction Questionnaire, are categorized under "unsatisfied" for the overall satisfaction level and for each responses , 'very dissatisfied', 'dissatisfied' and 'neutral' as **unsatisfied**.

**Waiting time:** The time from the admission of the mothers' until seen by health care provider

#### **4.12. Data processing and analysis**

Data was checked, coded and entered to Epi-data and was exported to SPSS (Statistical Package for Social science) version 21 for analysis. Data entry was made by the principal investigator.

During analysis, the responses of 'very satisfied' and 'satisfied' were classified as satisfied and responses of 'very dissatisfied', 'dissatisfied' and 'neutral' were classified unsatisfied. Neutral responses were classified as dissatisfied considering that they may represent a fearful way of expressing dissatisfaction. This was likely because the interview was undertaken within the hospitals and health centers; mothers may have been reluctant to express their dissatisfaction with the services they received. The overall satisfaction level was calculated; and individuals scored 75 % and more from fourteen (14) items of Patient Satisfaction Questionnaire, were categorized under "satisfied" and others as "unsatisfied".

Binary logistic regression was fitted to identify factors associated with mother's satisfaction with delivery services in health institution. In descriptive statistics tables, graphs and frequency was used to present the information. Significance was obtained at Odds ratio with 95% CI and  $p < 0.05$ .

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

##### **Ethical consideration**

The study was conducted after approval by the IRB (Institutional Review board) School of allied health sciences department of nursing and midwifery, AAU. Official letters was obtained from CHS, AAU to the respective officials, in turn the Zone Health Administration Office; was written a letter for study Hospitals and Health centers to get recognition and collaboration. Informed verbal consent was obtained from respondents after explaining the objective of the study. In addition, all the responses was kept confidential and anonymous by assuring that any information concerning them was never passed to any individual or institution without their agreement. A woman were kindly requested and included in the study but was told that it was their right to participate or not.

#### **4.14. Dissemination and utilization of result**

The results of this study was disseminated or communicated to Addis Ababa University College of Health Science school of Allied Health science Department of Nursing and Midwifery, West Arsi Zone Health Office, Ministry of Health, Regional health bureau, local institutions and other concerned bodies through reports and publication on an appropriate journal. Efforts will be made to present the results on scientific conferences and peer reviewed journal publications will be considered.

## 5. Result

### 5.1. Socio-demographic characteristics of study population

A total of 477 mothers who gave birth in West Arsi Zone health institutions in this study period were interviewed making a response rate of 100%. Among these respondents, 76 (15%) were less than 20 years, 347(72.7%) were between 20-34 years and 54 (11.3%) were above 35 years.

Marital status, 446 (93.5%) were currently married, 16(3.4%) were Single, 11(2.3%) were divorced (Table1).

Ethnicity of the respondents 305(69.9%) were Oromo, 94(19.7%) were Amhara, 14(2.9%) were Gurage, 8(1.7%) were Tigrina and 56(11.7%) were other ethnicity. Two hundred forty six (51.6%) of mothers were Muslim religion followers and followed by Orthodox Christian 122(25.6%) (Table1).

Among the interviewed mothers, 96(20.1%) were no formal education and 51 (10.7%) were diploma and above educational Status (Table 1).

Occupational status of the mothers, 229 (48.0%) were house wife, 101 (21.2%) were merchant, 65(13.6%) were governmental employee and, 52(10.9%) were farmer. Monthly income of the mothers, 216 (45.3%) were no monthly income, 112(23.5%) were less than 650 ETB and 62(13.0%) were more than 1900 ETB (Table1).

**Table 1: Socio demographic characteristics of delivering mothers in West Arsi zone, Health institutions, March 25-April 25,2016 (n=477).**

Variable	Frequency	Percent (%)
<b>Age</b>		
<20 years	76	15.0
20-34years	347	72.7
35-49years	54	11.3
<b>Marital status of the mother</b>		
Single	16	3.4
Married	446	93.5
Divorced	11	2.3
Widowed	4	0.8
<b>Ethnicity</b>		
Oromo	305	63.9
Amhara	94	19.7
Tigria	8	1.7
Gurage	14	2.9
Others	56	11.7
<b>Religion</b>		
Orthodox	122	25.6
Muslim	246	51.6
Protestant	105	22.0
other	4	0.8
<b>Educational Status</b>		
No formal education	96	20.1
Grade 1-6	169	35.4
Grade7-12	161	33.8
Diploma and above	51	10.7
<b>Occupational status</b>		
Governmental employee	65	13.6
Merchant	101	21.2
Farmer	52	10.9
House wife	229	48.0
Student	27	5.7
other	3	0.6
<b>Economic status</b>		
No monthly in come	216	45.3
<650	112	23.5
650-1000	42	8.8
1001-1900	45	9.4
>1900	62	13.0

## 5.2. Obstetric history of the mothers

From the interviewed mothers, 332(68.1%) were multipara mothers and 152(31.9%) were prim gravid mothers (Table 2).

The majority, 352(73.8%) of mothers were planned for delivery service, while 125(26.2%) of mothers were referred from other health institutions for delivery service. From these mothers, 421(88.3%) were wanted pregnancy and 56(11.7%) of the mothers were unwanted pregnancy status.

Mode of delivery, 326 (68.3%) of mothers were gave birth with spontaneous vaginal delivery, 88(18.4%) of the mothers were gave birth with Assisted vaginal delivery and 63(13.2%) of the mothers were gave birth with caesarian section. From the mothers who gave birth in selected health institutions 423(95%) were gave birth without complication and 24(5%) were gave birth with complication and 452 (94.8%) of the mothers were gave birth lived fetus and 25(5.2%) were gave birth died fetus.

Prenatal care and previous facility delivery, 451( 94.5%) of the mothers were had ANC follow up and 26(5.5%) of them did not have ANC follow up, while 300( 62.9%) of the mothers had previous facility delivery experience and 177 (37.1%) of them were did not have previous facility delivery experience (Table2).

**Table 2: Obstetric history of mothers who gave birth in West Arsi Zone health institutions, March 25-April 25, 2016, (n=477).**

Variable	Frequency	Percent (%)
<b>Number of parity</b>		
one	152	31.9
Two-five	233	48.8
more than five	92	19.3
<b>Reason for visit</b>		
Planned for delivery	352	73.8
Referred for delivery	125	26.2
<b>Status of pregnancy</b>		
Wanted	421	88.3
Unwanted	56	11.7
<b>Mode of delivery</b>		
Spontaneous vaginal delivery	326	68.3
Assisted delivery	88	18.4
Caesarian section	63	13.2
<b>Maternal out come</b>		
Normal	453	95.0
With complication	24	5.0
<b>Fetal outcome</b>		
Lived	452	94.8
Died	25	5.2
<b>ANC follow up</b>		
yes	451	94.5
No	26	5.5
<b>Previous facility delivery</b>		
Yes	300	62.9
No	177	37.1

### **5.3. Health facility and care provider related respondents' satisfaction**

#### **5.3.1. Health facility related respondents' satisfaction**

Majority of the mothers 387(81.1%) were traveled less than 25km, 87(18.2%) were traveled 25-50km and 3(0.6%) were traveled more than 50km to get delivery service. Most of the mothers 327(68.6%) were used car as mode of transportation while the others 150(31.4%) were traveled on their foot, Animal or human shoulder as means of transportation mode to get delivery service. Three hundred and twenty eight (68.8%) of the mothers were satisfied with the distance they traveled to get service, but 149(31.4%) of the mothers were unsatisfied with the distance they traveled to get the delivery service.

With the information on the location of the services of the hospital or health center, 404 (84.7%) the mothers were satisfied while 73 (15.3%) unsatisfied with the information of the service location. Among the mothers who gave birth in selected health institution, 125 (26.2%) of them were referred from other health institution. From those referred, 103 (82.4%) of them were satisfied with referral link and admission at where they referred while 22(17.6%) of mothers were unsatisfied with referral link.

In the selected health institutions, 327(68.6%) of the respondents were satisfied with access of toilet while, 150(31.4%) of the respondents were unsatisfied and 281(58.9%) of the respondents were satisfied with cleanliness of the toilet while, 196(41.1%) of the respondents were unsatisfied with cleanliness of the toilet.

From the mothers who gave birth in selected health institutions, 420(88.1%) were got service with exempted, while the others 57(11.9%) were paid for delivery service. Majority (97.1%) of the mothers were satisfied with the cost of the service and 14 (2.9%) were unsatisfied with the cost of the service. Among respondents who paid for delivery service, 22 (38.6%) of them were paid less than hundred (100) ETB and 35(61.4%) of them were paid more than hundred (100) ETB.

Among the mothers who were gave birth in the selected health institutions for the study, for 216 (45.3%) of them drugs and medical supplies was ordered for them and for 261(54.7%) were not ordered. Of those drugs and medical supplies was ordered for them, 172(79.6%) were satisfied with availability of the drugs and medical supplies at health institutions, while 44(20.4%) of the

mothers were unsatisfied with unavailability of the drugs and medical supplies at health institutions which was ordered for them.

The waiting area for patients and relative, 429(89.9%) of the respondents were responded as there was a waiting area, while 48(10.1%) of the respondents were responded as there was no waiting area for patents and relatives. From all respondents, 318(66.7%) were satisfied with cleanliness and comfort of a waiting area for the patients and relatives while, 159(33.3%) of the mothers were unsatisfied with cleanliness and comfort of a waiting area for the patients and relatives.

In this study, 373(78.2%) of the mothers were satisfied with the cleanliness and comfort of examination room while, 104(21.8%) of the mothers were unsatisfied with the cleanliness and comfort of examination room for the patients.

The overall cleanliness and comfort of health facility, 422(88.5%) of the mothers were satisfied and 55(11.5%) of the mothers were unsatisfied (Table 3).

**Table 3: Health facility related respondents' satisfaction in West Arsi Zone, Health institutions, March 25- April 25, 2016 (n=477).**

Variable	Frequency	Percent (%)
<b>Distance traveled for service</b>		
<25km	387	81.1
25-50km	87	18.2
>50km	3	.6
<b>Mode of transportation used</b>		
Car	327	68.6
On foot ,Animal or Human shoulder	150	31.4
<b>Satisfaction with facility distance</b>		
satisfied	328	68.8
Unsatisfied	149	31.2
<b>Satisfaction with information of service</b>		
satisfied	404	84.7
Unsatisfied	73	15.3
<b>Referred from health institution</b>		
Yes	125	26.2
No	352	73.8
<b>Satisfaction with referral link</b>		
Satisfied	103	82.4
Unsatisfied	22	17.6
<b>Satisfaction with toilet access</b>		
Satisfied	327	68.6
Unsatisfied	150	31.4
<b>Satisfaction with toilet cleanliness</b>		
Satisfied	281	58.9
Unsatisfied	196	41.1
<b>Payment status</b>		
Paid	57	11.9
Free	420	88.1
<b>Cost paid for service</b>		
<100	22	38.6
>100	35	61.4
<b>Satisfaction with cost of service</b>		
Satisfied	463	97.1
Unsatisfied	14	2.9

<b>Ordered drugs and supplies</b>		
Yes	216	45.3
No	261	54.7
<b>Satisfaction with availability of drugs and supplies</b>		
Satisfied	172	79.6
Unsatisfied	44	20.4
<b>Presence of waiting area</b>		
Yes	429	89.9
No	48	10.1
<b>Satisfaction with cleanliness of waiting area</b>		
Satisfied	318	66.7
Unsatisfied	159	33.3
<b>Satisfaction with cleanliness of examination room</b>		
Satisfied	373	78.2
Unsatisfied	104	21.8
<b>Satisfaction with over all cleanliness and comfort of health facility</b>		
Satisfied	422	88.5
Unsatisfied	55	11.5
<b>Overall level of satisfaction of delivery service</b>		
Satisfied	410	74.6
Unsatisfied	67	25.4

### 5.3.2. Care provider related respondents' satisfaction

The overall satisfaction level of mothers who were satisfied with delivery service in this study was 74.6 %. Of all satisfaction levels, cleanliness of toilet related satisfaction (58.9%), cleanliness of waiting area for patients and relatives' related satisfaction (66.7%), and access toilet of related satisfaction (68.6%) and facility distance (68.6%) were the first three least values (Table.3). Whereas Of all satisfaction levels, cost paid related satisfaction (97.1%), health profession related satisfaction (91.2%), and courtesy and respects of health care provider related satisfaction (89.5%) were the first three highest values of mothers' satisfaction with delivery services at health institutions (Table. 3).

Among all the respondents 368(77.1%) of mothers waiting time to see a doctor or midwife or other health care provider was less than one hour, 62(12.9%) was 1-2 hours and 47(10%) were greater than two hours. Of these 421(88.3%) of them were satisfied with the time spent to be seen by health care providers and 56 (11.7%) of them were unsatisfied.

The courtesy and respect of health care providers during care provision, 427(89.5) of them were satisfied while 50(10.5%) of them were unsatisfied with the courts and respect of health care provider during care provision. Among these respondents, 435 (91.2%) were satisfied with the health profession who examining them, while 42(8.8%) were unsatisfied with health profession who examining them. From the health profession examining them, 344(72.1%) were Midwife, 71(14.9%) were Doctor, 42(8.8%) were health officers and 20(4.2%) were Nurses. More than half 249 (52.2%) of the mothers who gave birth in selected health institution were attended by male sex and 228(47.8%) were by female health care provider. Three hundred twenty seven (68.6%) were satisfied with the sex who attended their delivery, while 150(31.4%) were unsatisfied.

From the respondents, 374(78.4%) were satisfied with the measure taken to assure their privacy, while 113(23.7%) were unsatisfied. Four hundred twenty three ( 88.7%) were satisfied with information had given for them on their health problems, but 54 (11.3%) were unsatisfied. About 410(86.0%) of the mothers were satisfied with the confidentiality of health care provider and 67 (14.0%) were unsatisfied.

Consistency use of the service and recommending service for their family and relatives, 457(95.8%) of the respondents were reported as to use the service, while 20(4.2%) of the respondents were reported as do not come back again for the service. Four hundred sixty one (96.6%) were reported as to recommending service for their family, relatives and friendlies and 16(3.4%) were not recommending.

**Table 4: Care provider related respondents' satisfaction with delivery service at health institutions in West Arsi Zone, March 25-April 25, 2016 (n=477).**

Variables	Frequency	Percent
<b>Waiting time before seen by midwife or doctor</b>		
Less than 1hour	368	77.1
1-2hours	62	12.9
More than 2hours	47	10
<b>Satisfaction with time spent before seen by midwife or doctor</b>		
Satisfied	421	88.3
Unsatisfied	56	11.7
<b>Satisfaction with courts or respect</b>		
Satisfied	427	89.5
Unsatisfied	50	10.5
<b>Satisfaction with profession of examiner</b>		
Satisfied	435	91.2
Unsatisfied	42	8.8
<b>Profession of examiner</b>		
Doctor	71	14.9
Midwife	344	72.1
Nurse	20	4.2
Health officer	42	8.8
<b>Sex of examiner</b>		
Male	249	52.2
Female	228	47.8
<b>Satisfaction with sex of examiner</b>		
Satisfied	327	68.6
Unsatisfied	150	31.4
<b>Privacy assured</b>		
Yes	374	78.4
No	103	21.6
<b>Satisfaction with privacy</b>		
Satisfied	364	76.3
Unsatisfied	113	23.7
<b>Satisfaction on information about health problem</b>		
Satisfied	423	88.7
Unsatisfied	54	11.3
<b>Satisfaction with confidentiality</b>		
Satisfied	410	86.0
Unsatisfied	67	14.0
<b>Coming back again for service</b>		
Yes	457	95.8
No	20	4.2
<b>Recommending service for others</b>		

Yes	461	96.6
No	16	3.4

## 5.4. Factors influencing mother's satisfaction with delivery service at health Institution

### 5.4.1. Socio-demographic factors

In bivariate analysis maternal age, marital status, educational status and monthly income was significantly associated with mother's satisfaction with delivery service at health institution. Mothers whose their age was less than 20 were less likely to be satisfied with delivery service than whose their age was 35-49 at  $p=0.031$ . (COR= 0.834, 95% CI: 0.806, 0.983) .Married mothers were three times more satisfied than Widowed mothers (COR= 3.130, 95% CI: 1.436, 12.484). Mothers whose their educational status was 1-6 and 7-12 were less satisfied than mothers whose their educational status were diploma and above (COR=0.55, 9% CI: 0.255, 0.679 and COR=0.714, 95% CI: 0.328, 0.852) respectively.

This study revealed that women who had no monthly income less satisfied with delivery service at health institution than women who had more than 1900 ETB monthly income and women who had monthly income of less than 650ETB were two times satisfied more than women who had more than 1900 ETB monthly income (COR=0.635, 95%CI: 0.859, 0.458 and COR=2.111, 95%CI: 1.987, 4.515) (Table. 5).

By applying multivariate logistic regression on socio demographic variables to control confounding effect of one variable over the other variable; Age, Marital status, Education status and economic status were adjusted. Only their educational status and their monthly income were significantly associated with satisfaction of mothers' with delivery service at health institution among socio-demographic variables at  $p$  value of  $<0.05$ . Women who had no formal education, primary education and secondary education were less satisfied than women who had diploma and above (AOR= 0.851, 95%CI: 0.306, 0.863, AOR=0.399, 95%CI: 0.154, 0.730 and AOR=0.569, 95%CI: 0.229, 0.412) respectively. Women who had monthly income less than 650ETB were three times more satisfied with delivery service than women who da monthly income of more than 1900ETB (AOR=3.294,95% CI:1.337,8.114) Table.5) .

#### 5.4.2. Obstetrics history factors

Obstetrics factors like; Number of parity, Reason for visit, status of pregnancy, Mode of delivery, Maternal outcome, ANC follow up and Previous health facility delivery experience were computed by using bivariate logistic regression analysis to identify their significance on the satisfaction of mothers satisfaction with delivery service. From these variables all have significant association with satisfaction of mothers with delivery service at health institution except number of parity and health facility delivery experience at p value of  $<0.05$ .

Mothers who had ;planned for delivery, Wanted pregnancy, Normal maternal and fetal outcome and ANC follow up were two times more satisfied than mothers who had not planned delivery, unwanted pregnancy, maternal and fetal complication and had not ANC follow up (COR=2.264,95%CI:1.453,3.527),(COR=2.297,95%CI:1.288,4.096),(COR=2.288,95%CI:1.288,4.096andCOR=2.905,95%CI:1.287,6.554)and(COR=2.273,95%CI:1.014,5.096)respectively(Table 5). Mothers who had assisted vaginal delivery were less satisfied than mothers who gave birth through caesarian section (COR=0.704, 95%CI: 0.356, 0.592) (Table 5).

By applying multivariate logistic regressions on Obstetrics history variables to control confounding effect of one variable over the other variable were adjusted. Among these variables only mode of delivery has significant association with satisfaction of mothers' satisfaction with delivery service at health instructions at p value of  $<0.05$ . Mothers who had assisted vaginal delivery were less satisfied than mothers who had caesarian section (AOR=0.31, 95%CI: 1.253, 4.115) (Table 5).

**Table.5. Socio-demographic and obstetric factors which associated with mothers' satisfaction with delivery services at health institutions in West Arsi Zone, March 25-April 25, 2016**

Variable	Satisfied	Un satisfied	COR (95% CI)	AOR(95%CI)
<b>Age</b>				
<20 years	49(64.5%)	27(35.5%)	<b>0.834(0.806, 0.983)</b>	1.105(0.488,2.504)
20-34years	270 (77.8%)	77 (22.2%)	1.611(0.860,3.018)	1.763(0.891,3.489)
35-49years	37 (68.5%)	17 (31.5%)	1.0	1.0
<b>Marital Status</b>				
Single	9(56.2%)	7(43.8%)	1.286(0.143,11.543)	1.858(0.165,20.936)
Married	338(75.8%)	108((24.2%)	<b>3.130(1.436, 12.484)</b>	4.055(0.459,35,850)
Divorced	7(63.6%)	4(36.4%)	1.750(0.173,17.686)	2.194(0.178,27.042)
Widowed	2(50.0%)	2(50.0%)	1.0	1.0
<b>Educational Status</b>				
No formal education	78(81.3 %)	18(18.8%)	1.057(0.447,2.499)	<b>0.851(0.306, 0.863)</b>
Grade 1-6	117(69.2%)	52(30.8%)	0.55( <b>0.255, 0.679</b> )	<b>0.399(0.154, 0.730)</b>
Grade7-12	120(74.5%)	41(25.5%)	0.714( <b>0.328, 0.852</b> )	<b>0.569(0.229, 0.412)</b>
Diploma and above	41 (80.4%)	10(19.6%)	1.0	1.0
<b>Economic status</b>				
No monthly in come	150(69.4%)	66(30.6%)	<b>0.635(0.859,0.458)</b>	1.397(0.642,3.041)
<650	95(84.8%)	17(15.2%)	<b>2.111(1.987, 4.515)</b>	<b>3.294(1.337,8.114)</b>
650-1000	31(73.8%)	11(26.2%)	1.065(0.439,2.581)	1.752(0.631,4.867)
1001-1900	35(77.8%)	10(22.2%)	1.322(0.539,3.244)	1.821(0.687,4.829)
>1900	45(72.6%)	17(27.4%)	1.0	1.0
Reason for visit				
Planned for delivery	278(79.0%)	74(21.0%)	<b>2.264(1.453,3.527)</b>	1.674(0.988,2.836)
Referred for delivery	78(62.4%)	47(37.6%)	1.0	1.0
Status of pregnancy				
Wanted	323(76.7%)	98(23.3%)	<b>2.297(1.288,4.096)</b>	1.454(0.747,2.833)
Unwanted	33(58.9%)	23(41.1%)	1.0	1.0
<b>Mode of delivery</b>				
Spontaneous Vaginal Delivery	260(79.8%)	66(20.2%)	1.832(1.010,3.323)	1.018(0.496,2.091)
Assisted Vaginal Delivery	53(60.2%)	35(39.8%)	0.704( <b>0.356, 0.592</b> )	<b>0.31(1.253, 4.115)</b>
Caesarian Section (C/S)	43(68.3%)	20(31.7%)	1.0	1.0
<b>Maternal out come</b>				
Normal	346(76.4%)	107(23.6%)	<b>2.288(1.288,4.096)</b>	2.581(0.959,6.943)
With complication	10(41.7%)	14(58.3%)	1.0	1.0
Fetal outcome				
Lived	343(75.9%)	109(24.1%)	<b>2.905(1.287,6.554)</b>	1.016(0.67,2.814)
Died	13(52.0%)	12(48.0%)	1.0	1.0
ANC follow up				
yes	341(75.6%)	110(24.4%)	<b>2.273(1.014,5.096)</b>	1.332(0.523,3.393)
No	15(57.7%)	11(42.3%)	1.0	1.0

### 5.4.3. Health facility and health care provider related factors

Bivariate and multivariate logistic regression analysis was computed for, waiting time before seen by midwife or doctor or other health care provider, Measures taken to assure privacy, Consistency of service use and Recommending service for others. Accordingly, mothers who spent less than one hour before seen by Midwife or Doctor or Other health care provider and those their privacy was assured were six times more satisfied than mothers who spent more than two hours before seen by health care provider (COR=6.198,95%CI:3.279,11.714) and those their privacy was not assured (COR=6.363,95%CI:3.960,10.224) respectively at p value of <0.05.

Mothers who responded to come back for the service were nine times more satisfied than those do not come back again for service(COR=9.934,95%CI:3.528,27.970).Those recommending service for their family, relatives and friends were fourteen times more satisfied than those do not recommending service for others(COR=14.164,95%CI:3.963,50.624)(Table 6).

In the multivariate logistic regression analysis; measures taken to assured privacy and recommending service for others were significantly associated with satisfaction of mothers with delivery service at health institution at p value of <0.05. Mothers those their privacy measures was maintained were six times more satisfied with their delivery service at health institution than those did not maintained(AOR=6.988, 95%CI:4.047,12.066)(Table 6) .

**Table.6. Health facility and Health care provider related factors which associated with mothers' satisfaction with delivery services at health institution in West Arsi Zone, March 25 –April 25, 2016 (n=477)**

Variable	Satisfied	Un satisfied	COR (95% CI)	AOR(95%CI)
<b>Cost paid for service</b>				
<100	13(59.1%)	9(40.9%)	0.719(0.500,1.034)	<b>1.640(0.518,5.189)</b>
>100			1.0	1.0
<b>Waiting time before seen by midwife or doctor</b>				
Less than 1hour	303(82.1%)	66(17.9%)	<b>6.198(3.279,11.714)</b>	<b>6.854(3.318,14.162)</b>
1-2hours	33(54.1%)	28(45.9%)	1.591(0.739,3.425)	1.841(0.779,4.351)
More than 2hours	20(42.6%)	27(57.4%)	1.0	1.0
<b>Profession of examiner</b>				
Doctor	45(63.4%)	26(36.6%)	2.292(0.303,1.580)	2.529(0.196,2.425)
Midwife	268(77.9%)	76(22.1%)	1.411(0.689,2.887)	1.903(0.377,2.159)
Nurse	13(65.0%)	7(35.0%)	0.743(0.238,2.315)	0.724(0.198,2.646)
Health officer	30(71.4%)	12(28.6%)	1.0	1.0
<b>Privacy assured</b>				
Yes	311(83.2%)	63(16.8%)	<b>6.363(3.960,10.224)</b>	<b>6.988(4.047,12.066)</b>
No	45(43.7%)	58(56.3%)	1.0	1.0
<b>Coming back again for service</b>				
Yes	3351(76.8%)	106(23.2%)	<b>9.934(3.528,27.970)</b>	1.402(0.10,9.361)
No	5(25.0%)	15(75.0%)	1.0	1.0
<b>Recommending service for others</b>				
Yes	353(76.6%)	108(23.4%)	<b>14.164(3.963,50.624)</b>	3.151(0.364,27.253)
No	3(18.8%)	13(81.2%)	1.0	1.0

## 6. Discussion

Since patient satisfaction with maternity services is an important outcome measure for the quality of care and provision of services, this study revealed mothers' satisfaction level with delivery service at health institutions. Accordingly, the overall proportion of mothers who were satisfied with delivery care in this study was 74.6% and 25.4% of the mothers were unsatisfied with overall services of health institutions at where they had their delivery.

This study finding is similar with the study conducted in Felege Hiwot Referral Hospital, Bahir Dar city, Northwest Ethiopia, among women who received delivery care, where the proportion of satisfaction was 74.9. %( 55) and also supported by study conducted in Pakistan and Assela Hospital, among women who received delivery care, where the proportion of satisfaction were 70% and 80.7 % respectively(18,32).But, this study finding is lower than the study conducted in Cote d'Ivoire ,which was 92.5% of the mothers were satisfied with delivery service(35) and higher than the study result found in Nairobi Kenya , Pakistan, Sri Lanka and referral hospital delivery service in Amhara Region, Ethiopia which were 56%,61%, 48%and 61.9% of the mothers were satisfied with their delivery service respectively(7,18,34,28). This variation may be due to a real difference in quality of services provided, an increase in awareness about what mothers should have obtained in the maternity care services, expectation of mothers or the type of health facilities provided delivery service.

The other probable reason for the difference might be, exempted from any payment for childbirth care services, increased accessibility of ambulance service for labouring mothers from their home to health institution for delivery service and an increase government concern for maternal health service in terms of qualified human power such as midwives, emergency surgery Health officers and obstetricians.

According to the analytic part of this study, educational status, economic status, mode of delivery, maternal outcome, and waiting time before seen by midwife or doctor and measures had taken to assure privacy werestatistically significant predictors of women's satisfaction childbirth care.

Mothers whose educational status was no formal education, primary education (1-6) and secondary education (7-12) were less satisfied with delivery service than whose their educational

status was diploma and above (AOR=0.851, 95% CI: 0.306, 0.863), (AOR=0.399, 95% CI: 0.154, 0.730) and (AOR=0.569, 95% CI: 0.229, 0.412) respectively. The study conducted in Pakistan supported this result (4). This might be due to greater experience and maturity as their educational status is increased. The other probable reason for this result might be expectation that health care providers have for educated and not educated and educated mothers might be not have difficult to communicate her problems with health care providers during care provision.

But, the study conducted in Ghana, Nigeria, and Zambia contradicted with this result, which showed mothers' educational levels negatively affected their satisfaction with maternal care (24, 45, 51) and the study conducted in Assela Hospital found that mothers whose their educational status was secondary school level (7-12) were 2.42 times more satisfied with delivery service than diploma and above (AOR=2.42, 95% CI: 1.17, 5.00) (32).

Women who had monthly income less than 650 ETB were 3.294 times more satisfied with their delivery service at health institution than women who had monthly income of more than 1900 ETB monthly income (AOR=3.294, 95% CI: 1.337, 8.114) (Table. 5). This study finding is supported by the study conducted in Assela Hospital which showed mothers 'who had monthly income of less than 500ETB were 2.40 times more satisfied with their delivery service than mothers' those their monthly income was more than 1000ETB (AOR=2.40, 95% CI: 1.25, 4.78) (32). This might be as economic status of mothers increased mothers expectation on delivery service increased with their monthly income increment.

Mothers who had assisted vaginal delivery were less satisfied than mothers who had caesarian section (AOR=0.31, 95% CI: 1.253, 4.115). This study is supported by the Study conducted in Amhara, Ethiopia found that mothers, who gave birth by SVD (spontaneous Vaginal Delivery) (142(34%)) more satisfied than assisted delivery 70 (16.8%) (28).

From this study, mothers' who had seen by doctors or midwife or other health care provider at less than one hour were 6.854 times more satisfied with their delivery service than mothers' who had seen at more than two hours (AOR=6.854, 95% CI: 3.318, 14.162). This study result finding is supported by study conducted in Assela Hospital and Amhara region Hospital which showed that mothers' seen by health care provider less than one hour were 26.7 times more satisfied

(AOR:26.7,95% CI:5.56,12.81)and 2.9 times more satisfied (AOR=2.9,95% CI:1.14,7.58) than mothers 'those visited at more than two hours respectively (28,32).

This study finding suggest that mothers whose privacy measures was maintained were 6.988 times more satisfied with their delivery service at health institution than those did not maintained (AOR=6.988, 95%CI: 4.047, 12,066) .This finding is supported by study conducted in Bangladesh and India which showed maintenance of privacy via a separate room or screen for examination or delivery was a significant factors affecting of satisfaction with maternal health services in (25, 36).

## 7. Strength and Limitation of the study

### 7.1. Strength

Data collectors were similar sex

Interviewed mothers in a separate room by trained nurses who are not affiliated with the facilities studied.

### 7.2. Limitation of the study

Since the data was collected through non random sampling when the mothers were discharged, it lacks generalizability.

These findings might also have been affected by the fact that women were interviewed after discharge, when they are likely to express negative feelings about maternity care

Since the study is cross sectional, temporal relationship could not be established.

Recall bias

## **8. Conclusions**

The overall satisfaction of hospital delivery services in this study is found to be suboptimal. The study strongly suggests that more could be done to assure that services provided are more patient centered. This study also revealed several constraints in the provision of delivery care services which can be implied as areas of possible improvement; including educational status, economic status, mode of delivery, waiting time before seen by health care provider and maintaining the privacy of the mothers.

Now-a-days most patients in our country complain about hospital services, among the services delivery services is that one. To identify specifically which factor causes dissatisfaction requires investigation. This study help to evaluate health care services from the patient's point of view, facilitate the identification of problem areas, and help generate ideas towards resolving these problems. In this study, examining mothers' satisfaction with different dimensions identified different aspects which may not be related directly to the service, but plays an important part in influencing mothers' satisfaction with delivery service at health institution.

## 9. Recommendations

- ✓ This study has provided means to obtain women views on the services being offered to them and can help health care providers, hospital managers and policy makers to work jointly in shaping their efforts for achieving maximum mother's satisfaction with delivery services.
- ✓ Health institution should work on cleanliness of waiting area, compound, examination room and cleanliness and access of toilet.
- ✓ Caregivers need to fully understand the expectations that patient have for their care, and provide care that is consistent with those expectations.
- ✓ The care givers of the facility should avoid staying longer waiting time to see the delivering mothers, breeching confidentiality and privacy of mothers
- ✓ Future studies should consider gathering more data from a more diverse sample to address the generalizability issue.
- ✓ Different parts of the country to come up with more representative findings.

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**Annex II: Verbal Consent Form**

It has been read to me in the language I understand all conditions stated above. Therefore, I am willing to participate in this study.

**Result of interview:**

- 1. Completed 2. Respondent not available 3. Refused 4. Partially completed

**Checked by:**

Supervisor Name \_\_\_\_\_ signature \_\_\_\_\_

Date \_\_\_\_/\_\_\_\_/\_\_\_\_ E.C.

Time Interview Started: Hour: \_\_\_\_ Minute: \_\_\_\_

Questionnaire No \_\_\_\_\_

Household ID No \_\_\_\_\_

Time Interview Ended: Hour: \_\_\_\_ Minute: \_\_\_\_

\_\_\_\_\_  
Name of interviewer

Date \_\_\_\_/\_\_\_\_/\_\_\_\_ E.C. signature \_\_\_\_\_

If respondent does not agree to be interviewed thanks her and go to the next respondent

### Annex III: English version Questionnaires

Instruction: - Circle the responses for questions with alternatives and write for open ended questions on the space provided.

#### Part One: Socio – Demographic Characteristic

S.no		Response	Skip
101	Age (in years)	1. _____	
102	Marital Status	1. Single 2. Married 3. Divorced 4. Widowed	
103	Ethnicity	1. Oromo 2. Amara 3. Tigrai 4. Gurage 5. Other (specify)_____	
104	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Other (specify)_____	
105	Educational Status	1. No formal education 2. Grade 1 – 6 3. Grade 7 – 12 4. Diploma and above	
106	Occupation	1. Governmental employee 2. Merchant 3. Farmer 4. House wife 5. Student 6. Other (specify)_____	
107	Economic status (monthly income )	_____	
108	Residence	1. Urban 2. Rural	

## Part two: obstetric history

S.no	Questions	Response	Skip
201	Parity(number)	_____	
201	Reason for visit	1. Planned delivery 2. Referral for delivery	
203	Status of pregnancy	1. Wanted 2. Unwanted	
204	Mode of delivery	1. Spontaneous vaginal Delivery (SVD) 2. Assisted delivery 3. Caesarian section(CS	
205	Maternal outcome	1. Normal 2. With complication	
206	Fetal outcome	1. Lived 2. Died	
207	Do you have ANC follow up?	1. Yes 2. No	
208	Do you have previous health facility delivery use experience?	1. Yes 2. No	

## Part – three: Questions on respondents’ satisfaction

### A) Health facility related:

S.no	Questions	Response	Skip
301	How much KMs distance you traveled for service?	_____	
302	Mode of transportation used	1. Car 2. On foot, animal or Human shoulder	
303	How much you satisfied with the facility distance?	1. Very satisfied 2. Satisfied. 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
304	How much are you satisfied with the Information of the service of the hospital? (e.g., In locating the rooms for registration, exam. rooms and drug dispensing).	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
305	Are you referred from other health institution?	1. Yes 2. No	If no skip to question

			307
306	If you referred, how much are you satisfied with the referral link? I.e. how much ready are they to receive referrals?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
307	How much are you satisfied with the access of the toilets?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
308	How much are you satisfied with the cleanliness of the toilets?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
309	How much are you satisfied by the waiting time to get the delivery service?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
310	Service payment status	1. Paid 2. Free	
311	How much you paid for the direct cost of service including card?	_____	
312	How much are you satisfied with the direct cost you paid for service including card?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
313	Were drugs and supplies ordered to you?	1. Yes 2. No	If not skip to question 315
314	How much are you satisfied with the availability of drugs and supplies?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
315	Is there waiting area for the patients and relatives?	1. Yes 2. No	
316	How much are you satisfied with the overall cleanliness and comfort of the waiting area?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	

317	How much are you satisfied with the overall cleanliness and comfort of the examination room?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
318	How much are you satisfied with the overall cleanliness and comfort of the hospital compound?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	

B) Care provider related:

S.no	Questions	Response	Skip
319	How long did you wait before seeing a doctor or a midwife?	1. Less than 1 hour 2. 1– 2 hours 3. More than 2 hours	
320	How much are you satisfied with the time spent waiting to be seen by the health worker?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
321	How much are you satisfied with the courtesy and respect of the Doctor/Midwife during your visit?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
322	How much are you satisfied by the way the health professional examining you?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
323	What is the professional who attended your delivery?	1. Doctor 2. Midwife	
324	What was the sex of the professional who attended your delivery?	1. Male 2. Female	
325	How much are you satisfied by the sex of the health professional examining you?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
326	Were there measures taken to assure privacy during your examinations? For example, a private room, Curtained or screened area, etc.	1. Yes 2. No	
327	How much are you satisfied with the measures taken to assure privacy during	1. Very satisfied 2. Satisfied	

	your examinations? For example, a private room, Curtained or screened area, etc.	3. Neutral 4. Dissatisfied 5. Very dissatisfied	
328	How much are you satisfied with the completeness of the information given to you about your problem? (By the health providers)	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
329	Are you satisfied with the measures taken to assure confidentiality about your health problem?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	
330	From your current experience, would you be give birth in this hospital/Health center again?	1. Yes 2. No	
331	From your current experience, would you be recommending this hospital/Health center to your family and friends?	1. Yes 2. No	
332	How much are you rate your overall level of satisfaction regarding the care of the delivery service you received?	1. Very satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very dissatisfied	

Thank you for your cooperation

## Annex IV- Afaan Oromo version participant Informationsheet.

UNIVERSIITII FINFINNETTI KOLLEEJJII SAAAYINSII FAYYAA FI MANA BARNOOTA  
QINDAA'INNA NARSOOTAA FI MIDIWAYIFEROOTA

Akkam bultan/OOltan?

Maqaan koo\_\_\_\_\_Yeroo ammaa kanatti digrii koo lammaffaa Universiitii Finfinneetti Kollejji Fayyaa fi Mana barnoota Qindaa'inna Narsootaa fi Midwayiferootaatti barachaa jira. Amma immoo eebbifamuudhaaf qorannoo haala itti quufinsa da'umsaa fi wantoota akka itti hin quufne godhan irratti manneen yaala Godina keessanitti argamu keessatti gaggeessa jira.

Qorannoon kun haawwoota mana yaala mootumma keessatti da'ani bahan hanga haawwoota 477 ta'utti guyyaa 01/02/2016 hanga 01/03/2016 tti gaggeeffama. Qorannoon kun miidha tokko illee hirmaata qorannichaa irratti hin qaqqabsiisu. Odeeffannoon ati nuuf kennitu hunduu icciitiin kan eegamuudha. Odeeffannoon ati nuuf kennitu nama qoranno gaggeessuuf namoota data funaaniif fi supervazeera qofa malee namni biroo kan beekneef maqaan kee kan hin barreffamne taa'u isaa siif ibsa.

Faayidaan ati qorannoo kana irraa argattu haala kenniinsa tajaajila da'uumsaa fi itti quufinsa tajaajilaatiin ala bu'aa biroo hinqabu.

Itti aanse gaaffileen armaan gadii kana si gaaffadha. Amanammumaan gaaffilee armaan gadii kana deebisuun milkaa'inna qorannoo kanaatiif gahee guddaa taphata. kanaafuu gaaffilee kana fedhaan akka naaf deebistu si gaaffadha. yoo feete qorannoo kana yeroo feetetti dhiiste deemu ni dandeeta. Yeroobarbaaddetti teessolee armaan gadii kanaan na qunnamuu ni dandeeta.

Hirmaachuu fedha ni qabda? Eeyyee Lakki

Galatoomi hirmaanna keetiif

Maqaa Nama daataa Funaanuu\_\_\_\_\_Mallattoo\_\_\_\_\_

Maqaa Qorataa

Amaan Urgeessa

Lakk.moobayilii: 09 38 08 05 42. E-mail: [aurgessa@ymail.com](mailto:aurgessa@ymail.com)

## Annex V: Afaan Oromo Verbal Consent Form

Afaan an waan hundaa hubachuu danda'uun naaf dubbifamee hubadhee jira. Kanaafuu Qorannicha irratti hirmaachuuf fedha ni qaba.

Bu'a gaaffii qorannicha gaggeessuuf ta'ame

1. Guutuudha 2. Hirmaatan hin argamne 3. Ni didee 4. Gar-tokkeen guutame

Kan Mirkanaa'een:

Maqaa Suparvaayizera \_\_\_\_\_ Mallattoo \_\_\_\_\_

Guyyaa \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ A.L.A

Yeroo gaaffiin itti jalqabame: sa'aa \_\_\_\_\_ Daqiiqa \_\_\_\_\_

Lakkoofsa gaaffilee \_\_\_\_\_

Household ID No \_\_\_\_\_

Yeroo gaaffiin xumurame: sa'aa \_\_\_\_\_ Daqiiqa \_\_\_\_\_

Maqaa gaaffataa \_\_\_\_\_

Guyyaaa \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ E.C. Mallattoo \_\_\_\_\_

Yoo gaaffatamaan hirmachuu hin feene galatoonfadhuu gaafatamaa itti aanutti darbi

## Annex VI: Afaan Oromo Version Questionnaire

Qajeelfama: Deebilee gaaffi irraa marsuun fillannoo kenname keessa filachuun iddoo duwwa kennametti guuti.

### Kutaa I:- Gaaffilee hawaasummaa ilaallatan

T. lakk.	Gaaffilee	Deebii	Irra darbi
101	Umriin kee waggaa meeqaa?	_____	
102	Haalli gaa'ila keetii maal?	<ol style="list-style-type: none"> <li>1. Hin Heerume</li> <li>2. Ee heerume ni qaba</li> <li>3. Wal-hikne</li> <li>4. Narraa du'e</li> </ol>	
103	Sabni/qomoon kee maal?	<ol style="list-style-type: none"> <li>1. Oromo</li> <li>2. Amaara</li> <li>3. Tigireyi</li> <li>4. Guraagee</li> <li>5. Kan biro yoo ta'e ibsi_____</li> </ol>	
104	Amantaan kee maal?	<ol style="list-style-type: none"> <li>1. Ortoodoksii</li> <li>2. Musiliima</li> <li>3. Pirootestantii</li> <li>4. Katolikii</li> <li>5. Kan biro yoo ta'e ibsi_____</li> </ol>	
105	Sadarkaan barumsa keeti hangaam?	<ol style="list-style-type: none"> <li>1. Hin barannee</li> <li>2. Kutaa 1-6</li> <li>3. 7-12</li> <li>4. Kollejjiif isaa oli</li> </ol>	
106	Hojiin/Dalagaan kee maal?	<ol style="list-style-type: none"> <li>1. Hojjattuu mootummaa</li> <li>2. Daldaltuu</li> <li>3. Qonnaan bulaa</li> <li>4. Hadha mana</li> </ol>	

		5. Barattuu 6. Kan biro yoo ta'e ibsi_____	
107	Ji'aan galiin kee qarshii hammam ta'a?	Qrsh_____	
108	Iddoon jireenya keeti eessa?	1. Magaala 2. Baadiyyaa	

kuta II: Gaaffilee waayee seenaa olfaa fi da'uumsaa ilaallatan

T.lak.	Gaaffilee	Deebii	Irra darbi
201	Tanaan dura yeroo meeqa ulfoofttee beekta?	_____	
202	Har,a maaliif dhufte?	1. Sagantaadhaan da'uudhaaf 2. Rifeerii ta'eeti	
203	Ulfaa kee itti yaaddemoo ykn tasaa ta'ee ulfooftte?	1. Itti yaadee 2. Itti hin yaadne	
204	Daa'ima kee haalaa kamiin deesse?	1. Karagadamessaatiin 2. Gargaarsa meeshaa da'uumsaatiin 3. Opereshiiniin/Karaa baqaqsani hodhuutiin/	
205	Da'uumsa booda haalli fayyaa keeti akkam ture?	1. Nagaa 2. Rakkoo horadhee ture	
206	Haalli daa'ima keeti akkam?	1. Lubbuun ni jira 2. Najelaa deebi'e	
207	Hordoffii ulfaan ni qabdaa?	1. Ee ni qaba 2. Lakki hin qabu	
208	Kanaan dura mana yaalatti deettee beekta?	1. Nan beeka 2. Hin beeku	

KutaaIII:Gaaffilee waayee itti quufinsakenna tajaajila da'uumsaailaallatan

T.lak.	Gaaffilee	Deebii	Irra darbi
301	Mana yaala ga'uudhaaf fageenya Km meeqa sitti fudha?	_____	
302	Geejiba maalii fayyadamta?	1. Konkolaata 2. Milaanan deema ykn horii yaabbii ykn ba'aa namaatiin	
303	Fageenya manni yaala kun isin irraa qabu hammam itti gammada?	1. Baayee itti gamaddee jira 2. Itti gamaddee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayee itti hin gamanee	
304	Infoormashinii manayaalaa kanaa argattetti haammam gammadee ? (fakeegnaaf mana kaardii,mana qorranoo,mana qorsaa)	1. Baayee itti gamaddee jira 2. Itti gamaddee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayee itti hin gamannee	
305			
305	Mana yaala biraa irraa rifeerii taateeti?	1. Eyyee 2. Lakki →	Lakkii yoo ta'e 306 irra darbi
306	Yoo riiferii tate ta'e keessumeessaa Hospitaala/Buufaata kanaatti hammam gammadde?	1. Baayee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayee itti hin gamannee	
307	Argamiinsa mana fincaanitin haamam gammadde?	1. Baayee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu	

		4. Itti hin gamadnee 5. Baayyee itti hin gammannee	
308	Qulqulinna mana fincaanitti hammam gammadde?	1. Baayyee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayyee itti hin gammannee	
309	Tajaajila da'umsaa argachuf yeeroo isin iraa fudhatuti haamam gamadan?	1. Baayyee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayyee itti hin gammannee	
310	Haalli kafalti yaala akkam turee?	1. Kafalee yaalame 2. Tolaan yaalame	
311	Tajaajila yaalaafi kaardis dabalate hammam kafalte?	Qrsh_____	
312	Kafalti tajaajila yaalaaf kaarditiifkafaltetti hammam itti gammaddee?	1. Baayyee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayyee itti hin gammannee	
313	Qorsaa fi meshaan qorannoo siif ajajamee jiraa ?	1. Eyyee 2. Lakki	Lakki yoo ta'e 314 irra darbi
314	Jiraachu qorsaafi meshaaletin hammam gammaddee?	1. Baayyee itti gammadee jira 2. Itti gammadee jiraa 3. Ilaalcha homaa qabuu 4. Itti hin gammadinee 5. Baayyee itti hin gammannee	
315	Iddoon harabaafannaa dhibamaafi firaa jiraa?	1. Eyyee 2. Lakki	

316	Qulqillinna fi namatt toliinsa iddooharabaafannaa dhibamaafi firaa kanatti hammam gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
	Qulquulinaa fi namatii toolinsaa bakkee qoorano dhibamaa akkamiti ilaaltee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
318	Walumaagalati qulquulinaa fi namattii toolinsaa Hospitaalichaa/Buufatichaa akkamiti ilaaltee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	

## B. Gaaffilee oggesa fayaa ilaallatan

S.no	Gaaffilee	Deebii	Irra darbi
319	Doctorin ykn Midwiferiinilaalamu keetiin dura sa'aa meeqaa eegde?	<ol style="list-style-type: none"> <li>1. sa'aa 1 gadii</li> <li>2. sa'aa 1-2</li> <li>3. sa'aa 2 oli</li> </ol>	
320	Yeeroo ogeessa fayyaatian ilaalamuuf egdettii hammam gammaddee jirtaa?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
321	Kabajjaa Oggeesi fayyaa yeroo qorranoo siif laatetti hammam	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> </ol>	

	gammaddee?	<ol style="list-style-type: none"> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
322	Haala qorannoo Oggessi fayyaa siif godheen hammam gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
323	Namni qorannoo siif gaggeessee ogummaan isaa maal?	<ol style="list-style-type: none"> <li>1. Doktoraa</li> <li>2. Midwayiferiidha</li> </ol>	
324	Ogeessi si deessisee saalli isaa maali?	<ol style="list-style-type: none"> <li>1. Dhiira</li> <li>2. Dubara</li> </ol>	
325	Saala nama si deessiseen hammam itti gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
326	Yammu qorannoo siif gaggeesan akka namni si hin argiinee goodhani jiru?	<ol style="list-style-type: none"> <li>1. Eyyee</li> <li>2. Lakki</li> </ol>	
327	Yeroo qorannoo siif godhanatti offeganoo akka namni si hin agareetti siif godhametti hammam gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
328	Infoormashiinii guutu Ogeessa fayyaatiin siifkenameeti hammam gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
329	Waayyee dhibee kee iratti hicciiti eguu	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> </ol>	

	isaani irati hammam itti gammaddee?	<ol style="list-style-type: none"> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	
330	Muxxanoo kee kan amma kana irratti hundaa'uun gara fulduraa Hospitaala/Buufata kanati da'uu nibarbaadaa?	<ol style="list-style-type: none"> <li>1. Eyyee</li> <li>2. Lakki</li> </ol>	
331	Muxxanoo kee kan amma kana irratti hundaa'uun maatin keetiifi hiriyooni kee akka asitti dayaniif ni gorsitaa?	<ol style="list-style-type: none"> <li>1. Eyyee</li> <li>2. Lakki</li> </ol>	
332	Walumaa galati haala qarqaarsa da'uumsaa asitti siif goodhameefmammam itti gammaddee?	<ol style="list-style-type: none"> <li>1. Baayee itti gammadee jira</li> <li>2. Itti gammadee jiraa</li> <li>3. Ilaalcha homaa qabuu</li> <li>4. Itti hin gammadinee</li> <li>5. Baayyee itti hin gammannee</li> </ol>	

## 11. Declaration

I the undersigned declare that this is my original work and has not been presented in this or any other University and all source of materials used for the proposal have been fully acknowledged.

**Name of principal investigator:** Aman Urgessa (BSc, MSc Candidate)

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

Date: \_\_\_\_\_

Place: Addis Ababa University College of Health Science School of Allied Health Science

Department of Nursing and Midwifery

This Thesis has been submitted for approval to:

**Name of advisor:** Girum Sebsibe (BSc, MSc)

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

Date: \_\_\_\_\_

**Name of examiner:** \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_