OPEN ACCESS Freely available online

General Medicine: Open Access

Review Article

Assessment of Knowldge, Attitude and Practice of Mothers in Child Bearing Age Towords Institutional Delivery in Adaba Town, Arsi Zone, Oromiya Region, Ethiopia

Ahmed Yasin Mohammed[1], Tilahun Ermeko Wanamo[1*], Fikadu Nugusu Dessalegn[1]

Department of Public Health, Goba Referral Hospital, Madda Walabu University, Bale Goba, Ethiopia.

ABSTRACT

Back Ground: Appropriate delivery care with skills attendant at birth is crucial for both maternal and perinatal health. In addition to professional attention, it is important that mothers deliver their babies in an appropriate setting, where lifesaving equipment and hygienic conditions can also help reduce the risk of Complications that may cause death or illness to the mother and child.

Objective: To assess knowledge, attitude and practice of mothers in child bearing age towards institutional delivery in Adaba town, Oromia, Ethiopia.

Methods: A Community based Cross Sectional Study was conducted from March 15 to March 20. All women of reproductive age group (15-49yrs) were considered as source population. Systematic sampling method was used and data was collected by using structured questionnaires. A study was conducted on 242 women who gave at least one alive birth within five years. The analysis of data was calculated by using scientific calculator and SPSS software. The questionnaires were checked for completeness and consistency through discussion on questionnaire and Prior to applying the total questioner, pretest was done.

Result: The overall practice of institutional delivery of last child in this study was 141(58.3 %). The study revealed that out of 242 mothers in reproductive age group, 212(87.6%) have knowledge and 218(90.1%) have positive attitude to words institutional delivery. Age, marital status, religion, parity, income, ANC follow up and occupation had significant association with institutional delivery.

Conclusion: Practice of institutional delivery is low in the study area. Religion and cultural practice is one of the major factors that make mothers not to deliver at health institution. From a total of 242 mothers 158 (65.3%) of them have delivered at health institution previously while 84(34.7%) of them have never delivered at health institution before. Most mothers have knowledge and positive attitude of institutional delivery in the study area.

Recommendation: Health education program about Institutional delivery should be highly given at ANC follow up because mothers who have ANC follow up were more likely to deliver at health institution than mothers who have no ANC follow up. Cost of health service should be reduced because income has significant influence on delivery service utilization.

Keywords: knowledge; Attitude; Practice; Child bearing age; Daba town

Correspondence to: Tilahun Ermeko Wanamo, Department of Public Health, Goba Referral Hospital, Madda Walabu University, Bale Goba, Ethiopia, Tel no: 251909648032; E-mail: tilahunjimma2008@gmail.com

Received date: December 13, 2021; **Accepted date:** December 27, 2021; **Published date:** January 03, 2022

Citation: Mohammed AY, Wanamo TE, Dessalegn FN (2022) Assessment of Knowldge, Attitude and Practice of Mothers in Child Bearing Age Towords Institutional Delivery in Adaba Town, Arsi Zone, Oromiya Region, Ethiopia. Gen Med (Los Angeles). 10: 028.

Introduction

Back ground

Appropriate delivery care with skilled attendant at birth is crucial for both maternal and prenatal health. In addition to professional attention, it is important that mothers deliver their babies in an appropriate setting, where lifesaving equipment and hygienic condition. Appropriate delivery care can also help to reduce the risk of complications that may cause death or illness to mother and child.

Over the past decades interests has grown to examine influences on care seeking behavior. As cited in the "Three Delays" model, three main inhibitors to health care service utilization exists; the delay in deciding to seek care, the delay in reaching at adequate health care facility and the delay in receiving adequate care facility phase 2 delays may be due to distance home facility, lack of transportation and high cost of travel.

One of the objectives of the United Nations Millennium Development Goals (MDG5) was to reduce MMR by an average of 5.5% every year over the period 1990-2015 by improving quality of skilled care attendance at birth and eradicating extreme poverty. At the global level, MMR decreased by less than 1% per year between 1990 and 2005 for below 5.5% to reach the target of MDG of all MDG, countries have made the least progress towards MDG5.As Ethiopian EDHS 2011 has shown MMR was 676 per 100,000 live births for the seven year period preceding the survey which is not significantly different from EDHS 2005 Report (673 per 100,000 live birth).

The proportion of women who delivered with the assistance of a skilled birth attendant is one of the indicators in meeting the fifteen MDGs. In almost all countries where health professionals attend more that 80% deliveries, MMR is below 200 per 100,000 live births. However, birth with skilled attendance was low in Southern Asia (40%) and SSA (47%), the two regions with the greatest number of maternal deaths.

According to EDHS 2011 and 2005, the proportion of women utilizing safe delivery service in the country in general and in Oromia in particularly is very low. About 30% of the eligible mothers received ANC service and only 8% of the mothers delivered in health facilities in the region.

Statement of the problem

Maternal mortality remains a major challenge to health system worldwide. According to assessment of trends in maternal mortality for 181 countries from 1980-2008.it was estimated to be 342900 maternal death worldwide in 2008 decreasing from 526300 in 1980. More than 50% of all maternal deaths were only from six countries in 2008(India, Nigeria, and Pakistan, Afghanistan, Ethiopia and democratic republic of Congo). Worldwide the major causes of maternal mortality are hemorrhage (24%), Infection (15%), unsafe abortion (13%), prolonged labor (12%) and eclampsia (12%). Whereas primary cause of maternal mortality in Africa are hemorrhage(34%), other direct cause(17%), infection(10%), hypertensive disorders(9%), obstructed labor(4%),abortion(4%) and anemia(4%).

Inspire of the national and global efforts at reducing maternal morbidity through the safe motherhood initially there is no significant reduction in maternal morbidity in developing countries.

The United Nations children fund (UNICEF) estimates that yearly about 515,000 women die of pregnancy and child birth complications. It is also estimated that 1600 women across the world die each day as a result of pregnancy and child birth related problem and the greater proportion of these deaths occur in developing countries.

Women in south Asia and Africa are at greater risk of mortality related to pregnancy. Africa contributes to 18% of worldwide live birth and 30% of world's maternal mortality. On the other hand developed nations contribute 4o% of the world's live birth and only 1% of maternal mortality. In Africa here women bearing on average 6 or 7 children life time chance of dying from pregnancy related causes in 1 in 2 (very high).

According to EDHS of 2011, In Ethiopia the proportion of birth attended by skilled birth attendants is still very low. Nationally only 10.8% of the births took place at health institutions.

Only 10-14% of births are attended by traditional birth attendants these results 500 to 1000 maternal mortality per 100,000 live births, which is the highest in the world. Most home deliveries were delivered without assistance.

In Ethiopia maternal mortality and morbidity are among the highest in the world. MMR currently is 676/100,000 live birth. One explanation for this poor health outcome is unavailability and lower use of available modern health services by a sizable proportion of women.

Lack of knowledge about institutional delivery is a major problem affecting people in all parts of the world. In developing countries like Ethiopia where we cannot address each problem of women and take an action, we can at least prevent many of the problems that can be raised by one category. That is by addressing the problems that occur due to unsafe place of delivery. Due to low prevalence of institutional delivery, the major cause of maternal mortality such as post-partum hemorrhage, infection, obstructed labor, hypertensive disorders of pregnancy and unsafe abortion pose risk to mothers in our country.

So this study was developed to assess KAP of mothers in child bearing age towards institutional delivery and associated risk factor. More over this study attempted to develop base line inf2.

Literature review

Socio demographic factors

A number of socio demographic characteristics of the individual affect the underlying tendency to seek health care; maternal education has been shown to be positively associated with the utilization of maternity care services. All through in generally women in higher socio economic groups tend to exhibit patters of more frequency of maternal health services than women in

the lower social economic groups, factors such as education appear to be important mediators.

In many parts of Africa, women decision making power is extremely limited particularly in matters of reproduction and sexuality. In this regard decision about maternal care is often made by husbands and other family members.

Accessibility of health services in most rural areas of Africa, one in three women lives more than five kilometers from the present health facility. The scarcity of vehicles especially in remote areas and poor road construction can make it extremely difficult for women to reach even relatively nearby health facilities. Working is the basic mode of transportation ever for women in labor.

Study conducted in south west Ethiopia showed those Muslim illiterate mothers, family with low monthly income (below 100birr per month) and rural residents tends to use health institutional at lower proportion.

About 7% of women's who attempt to give birth at home encountered prolonged labor, of total number of women only 1.5% delivered by cesarean section (CS). Maternal education is strong predictor of preference of place of delivery. Mothers whose educational status was secondary high school and above were about 11 times more likely to give birth at health institutional than others.

Obstetric related factors

Each year 98% of the estimated 529,000 maternal death and 98% of the estimated 5.7 million prenatal deaths occur in the developing countries. In some areas, a woman is 140 times at risk of dying from pregnancy related causes compared to a woman in developed countries.

Every day in 2010, about 800 women died due to complication pregnancy and child birth including sever bleeding after child birth, infection, hypertension disorder and unsafe abortion. Out of the 800,400 death occurred in sub Saharan Africa and 230 in southern Asia compared to the five in high income countries the risk of a women in developing country dying from a pregnancy related cause during her life time is about 25 times higher compared to a women living in a developed countries.

In 2006, nearly 61% of the births in the developing world were assisted by skilled birth attendants. However, coverage remains low in southern Asia (40%) and SSA (47) – the two regions with the greatest number of maternal deaths. For many women in developing countries pregnancies and child bearing takes place with little or not trained assistance of 85% of world's birth takes place in developing countries, less that 50% are attended by physician, nurses and mid wives.

According to world health organization (WHO) data 2.7 million babies are born dead each year and another 3 million don't survive beyond first two week of life. About one third of prenatal death in developing countries is related to intra-partum complication leading to birth asphyxia. Preterm birth, Malformation and infection related to pregnancy and birth complication to the remaining of early neonatal death.

Complication of pregnancy and child birth remain pending cause of death and disability among woman of reproductive age in developing countries. Women play a major role in rearing children and management of family affairs; hence their loss from delivery complication is significant social and personal tragedy.

In study conducted eastern province of Kenya, only 55% of deliveries takes place with the assistance of professional birth attendants and less than 3% received post-partum care. In Kenya only 42% of women delivered at health facilities, with estimated maternal mortality 670/100,000 live births and recent study only half of the mothers received maternal care at eastern Kenya.

In Ethiopia only 6% of births are delivered with assistance of trained health professionals, 28% delivered by traditional birth attendants.

The majority of birth is attended by relatives or some other person (61%) and 5% of all birth are delivered without any type of assistance. However, birth to young mothers (less than 35 years) and first births tare attended by trained health professionals.

Study conducted in Northern Gondar showed that out of 186 mothers who gave birth at health institution, Only 14 (1.7%) of rural respondent gave birth to their last at health institution. About three forth (76.74) of these home deliveries are attended by untrained traditional birth attendants, relatives and by mothers themselves.

Institutional delivery service utilization in Amhara region was about 3.5% in EDHS 2005 which in turn was much lower than the national level. [11] And in EDHS 2011 it has increased to 10.8%.

Other factors

Does the place of birth have an impact on the course of labor and delivery? The question has been abundantly researched in the past two decades.

When in many developed countries labor went from a natural process to a controlled procedure then the place of delivery change from home to hospital. At the same time much of the human touch was taken out, pain was alleviated pharmacologically.

These was the opposite end of the spectrum of those part of the world where ever than 20% of women have access to any formal birth facility. For the name birth not an option. It is virtually in excitable for reason ranging from economic to cultural and including geographical.

Study conducted in Ethiopia in February 2009, the maternal Health service coverage is still unacceptably low taking the percentage of deliveries attended by skilled health personal as example, as well in creased 42-45% was observed in sub-Saharan Africa over part 5 years where the percent in Ethiopia was very low in 2001/2002 (10%) with slight but steady increase over the past years 2007/2008 (20%). [21] Information from main areas of intervention needed.

Methods

Study area and period

The study was conducted in Adaba town, west Arsi zone, Oromia region south east of Ethiopia. The town is situated at about 345km to the south east of Addis Ababa, along Addis Ababa-Robe-Goba road and 100km from zone capital, Shashemene. The total area of the town is 1288.7 hectare .Administratively the town is structured in two kebeles and two peasant administration kebeles, Furunna-melka and Ejersa-chumlugo. The total number of population is 26,418, Out of which 12,367are male and 13,151 females. Among the different ethnic group in Adaba Oromo, Amhara, Gurage, Tigrae and others, Oromo is the dominant ethnic group in the town. Among the different regions Muslim, orthodox, protestant, catholic and others, majority are Muslim followers. The weather condition of the town is tropical. The average temperature of the town is 10-250c. Concerning on health facilities, the town has one government health center, three private clinics, four private pharmacies and three private diagnostic laboratories. The town also has roads, electricity, telephone and postal service. The study was conducted from March 15-June 15.

Study design

A community based cross sectional study was conducted in Adaba town.

Source population

Women of reproductive age group (15 – 49 yrs).

Study population

Women who have at least one alive birth in the past five years.

Inclusion and Exclusion criteria

Inclusion Criteria

The study included those women in reproductive age group 15-49 yrs who have at least one child in the past five years.

Exclusion Criteria

The study did not include women that are intellectual disability and deaf.

Sample size determination

According to study conducted on prevalence of mother toward institutional delivery in child bearing age in Dodota woreda, Oromia region, Ethiopia.2011. The result [practice] was 18.2% (26). Then assuming that mothers in child bearing age have practice towards institutional delivery is 18.2%, using 95% confidence interval and 5% tolerable error was considered. 10% of sample size was also added for non-respondents' rate.

The actual size of sample required was calculated using the standard formula for single population proportion.

The standard formula is ni= (Z /2)2 P (1-P)/d2

Where P = 0.182(prevalence of institutional delivery)

ni = initial sample size

Z /2 = 1.96 (95% confidence interval)

d = 0.05 (5% Margin of sample error to be tolerated)

= type I error

ni = (1.96)2 *0.182 (1-0.182) (0.05)2

ni = 228.768816

= 229

nf = ni , where: N < 10,000

nf = final sample size

1 +ni/N

N = size of target population

= 229

= 1+229/5846

= 220

Total sample = nf +10% 0f nf (no respondents)

Therefore, 220 + (10/100 *220) = 242

A total of 242 women of child bearing age, who gave at least one alive birth in the past five years, were selected.

Sampling Technique

A systematic sampling selection method was used during the study. Initially all households of the town were numbered, and then every 15th (the interval) which was calculated by Total number of house hold 3774 divided by the sample size 242 were selected. The first house was selected by using lottery method. When the 15th mother was absent we used the next house (15th +1), and then the next sample was from last house plus the interval [(15th+1) +15th] and if there are two feasible mothers we choosed by lottery method.

Data collection tool and techniques

Questionnaire was developed by using questionnaire developing methods and previously developed questionnaires on KAP as reference and guiding tool. Data was collected using pre tested and structured questions by five public health officer students using interview administered questionnaires and the data was collected for five days.

Study variables

Independent variables

- Socio demographic variables
- Age
- Marital status
- Religion
- Ethnicity
- Income
- Educational level
- Occupation
- Distance from health institution
- Obstetric History

- ANC
- Parity
- Abortion
- Place of last birth
- Cultural practice
- Custom
- Dependent Variables
- Institutional delivery
- Knowledge
- Attitude
- Practice

Operational definition

- Institutional deliveries: Are deliveries that take place at health institution (hospital, health center, and private clinic and health posts) and were assisted by medically trained professionals (such as medical doctors, health officers, nurses, midwives) and health extension workers.
- Antenatal care: as a health care and education provided to pregnant women in the health institution from conception to onset of labor by health professional at least one visit.
- Safe delivery: as a delivery that takes place at health institution with clean procedure and assisted by trained health professionals and results in minimal morbidity and mortality for the mother and child.
- Knowledge: s available information stated in memory about institutional delivery.
- Danger signs: Abnormal signs like vaginal bleeding, swelling severe headache, blurring of vision excessive which indicate the pregnancy is risky.
- Good knowledge: A mother who choose correctly more than seven (7) of the question s assessing knowledge.
- Reasonable knowledge: A mother who choose correctly four to seven of knowledge questions.
- Poor knowledge: A mother who correctly answers less than or equal to three of the knowledge questions.
- Attitude: rades position to respond in favorable or unfavorable manner. About institutional delivery.
- Positive attitude: A one who chooses four and above attitude questions correctly.
- Negative attitude: A one who responds less than four attitude questions correctly.
- Practice: A mother who deliver at health institution

Data quality control

The questionnaires were checked for completeness and consistency through discussion on questionnaire by us and interview was held among ourselves before active data collection was started. We discussed about interview techniques and make sure that all member of data collectors master interview techniques. Prior to applying the total questioner, pretest was done which was not included in sample size by taking 5% of the sample size. We coded the questionnaire by a total of five separate types of codes. We carefully and meticulously collected, entered and analyzed the data. Interviewers checked whether the questioners were filled completely or not before finishing each interview. We were reviewed the data during the data analysis stage to check whether data was complete and consistent. After careful evaluation data inconsistent and missing was excluded.

Data analysis procedure

The collected data was checked for its completeness, consistency and accuracy. The analysis of data was calculated by using scientific calculator and SPSS software then the analyzed data was presented with tables, frequency and proportions in respective variables and objectives.

We used chi-square to assess the association between dependent and independent variables.

Ethical consideration

First ethical clearance was obtained from Madawalabu University, department of public health then permission letter was taken from the woreda health office to the selected kebeles administrative bodies finally, each respondent was informed verbal consent, after being told the purpose and procedure of the study while the willingness and confidentiality was maintained.

We informed the respondents that the result of the study is very crucial for the community (including them), the government, policy makers and NGO's.

Dissemination of results

After the completion with partial fulfillment of requirements, this study will be recommended and adopted by advisors and members of public health department following its adoption it will be administered to CBE office of Mada Walabu University and department of public health, more over the result will be disseminated to the community on which the study will done, woreda office of the study area, health bureau, NGOs.

Result

Socio demographic characteristics

A Total of 242 Mothers of reproductive age group who has at least one alive child in the past five years voluntarily responded making the respondent rate 100%. Most of 68 (28%) respondents were in age group of 25-29.

sixty four points five percent 156 (64.5%) of respondents have less than five family sizes.

Regarding the marital status 182(75.2%) was married. Concerning the ethnicity 66.1% were Oromo followed by Amhara 23.6%, others 7.4% (Wolayta (3.6%), Gurage (2.6%) and Silte (1.2%) and Tigrae 2.1%.

Majorities (63.2%) of mothers were house wives by Occupation and 36.4% of the mothers have attended primary school education.

Out of the total respondents 93(38.4%) have monthly income less than 700 birr. (Table-1)

Table1: Socio demographic Characteristics of respondents in Adaba town in 2005E.C.

S. o	Variables		Frequency	%
1	Age in year	15-19	14	5.9
		20-24	63	26
		25-29	68	28
		30-34	39	16.1
		35-39	45	18.6
		40-44	4	1.7
		45-49	9	1.2
2	Family size	4-Jan	156	64.5
		≥ 5	86	35.5
		Total	242	100
3	Marital status	Married	182	75.2
		Divorced	34	14
		Widowed	7	2.9
		Separated	19	7.9
4	Ethnicity	Oromo	160	66.1
		Amhara	57	23.6
		Tigrae	7	2.9
		Others	18	7.4
5	Occupation	House wife	153	63.2
		Merchant	44	18.2
		Governmen t employee	26	10.7
		Private employee	12	5
		Daily labor	7	2.9
6	Monthly income(in birr)	<700	93	38.4
		700-1499	86	35.6
		1500-2299	50	20.6
		≥ 2300	13	5.4

The majority (51.7%) of mothers were Muslim by religion. (Figure -1)

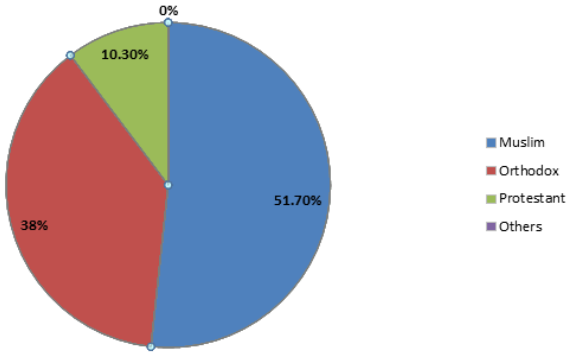
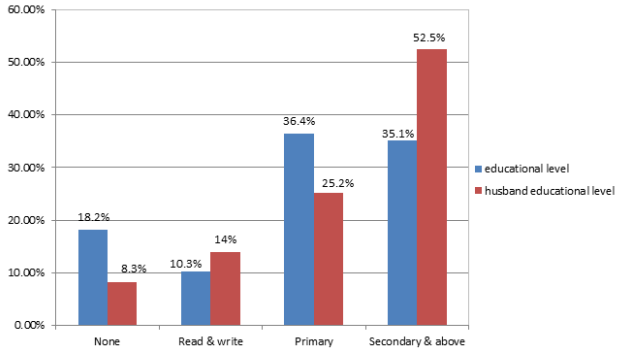


Figure1: The religious distribution in Adaba town, 2005 E.C.

The educational level of mothers decreases in secondary education as compared to their husbands. (Figure-2)



Educational level

Figure2: comparison of educational level of mothers and their husbands in Adaba town, 2005 E.C.

Knowledge of institutional delivery

Respondents were assessed whether they have adequate knowledge about institutional delivery or not. From a total of 242 respondents, 212 (87.6%) have good knowledge about institutional delivery. Out of 242 respondents 233(96.3%) know that there is delivery service at health institution and 9(3.7%) don't know that there is delivery service at health institution. From those 233 mothers who know that there is delivery service at health institution 97(41.6%) get the information during ANC follow up, 54(23.2%) from Neighbors, 60(25.7%) delivered at health institution before, 74(31.7%) from health education at health institution and 17(7.3%) reported other reasons like school 3(1.2%), TV 5(2.3%), health extension workers 9(3.8%).

Out of 242 mothers 212(87.2%) of them think health institution is the appropriate place of delivery, 22 (9.1%) of them think home is the appropriate place of delivery and 8(3.3%) responded that they don't know which is appropriate place of delivery. From those 212 mothers who think health institution is appropriate 128(60.3%) of them go to health institution soon after onset of labor, 64(30.2%) before onset of labor, 18(8.5%) hours after onset of labor, 2(0.9%) after delivery if there is complication & 6(2.8%) of them replied other reasons like if prolonged labor 4(1.6%), failure of delivery by TBA 2(1.2%).

From the total of 242 respondents, 211(87.2%) of mothers wishes to give birth at health institution & 31(12.8%) of mothers don't want to give health institutional delivery and their reported reasons were, I like to give birth at home 23(74.1%), no money to pay 4(12.9%), TBA is better 1(3.2%), fear of episiotomy 2(6.4%) & other reasons 4(12.9%) like I don't want to give birth anymore 3(9.6%) and I have no husband 1(3.3%).

Out of 211 mothers who wishes health institutional delivery, 169 (80.0%) of them were reported to avoid possible complications that may happened during home delivery, 99(46.9%) of them to have healthy baby, 70(33.1%) of them to avoid harmful traditional practice & 4(1.9%) of them reported other reasons like it is clean environment 1(0.5%) and birth attendants are well educated 3(1.4%).

Regarding knowledge of respondents about danger signs of pregnancy 98(40.5%) of mothers know danger signs while 143(59.1%) don't know. (Figure3).

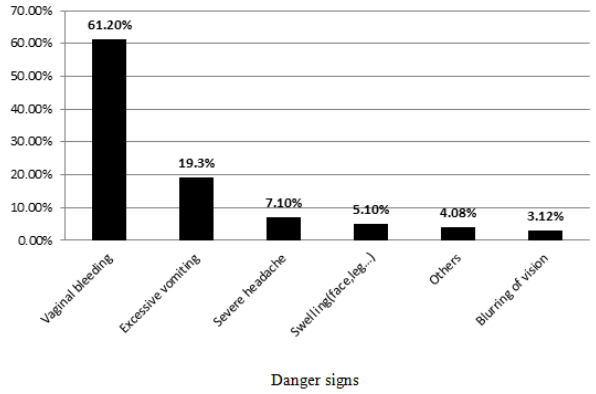


Figure3: knowledge of mothers about danger signs of pregnancy in Adaba town, 2005 E.C.

Out of 98 mothers who know danger signs of pregnancy 97 (98.9%) of them go to health institution when these see danger signs, 1(1.01%) stay at home and 0(0%) of them go to TBA.

Attitude towards institutional delivery

Out of 242 mothers in reproduce age group 218(90.1%) of mothers have positive attitude

Table2: Attitude of mothers towards institutional delivery in Adaba town in 2005 E.C.

s. no	variables	Frequency	%
1	Institutional delivery is better place of delivery (n=242)		
	Yes	218	90.1
	No	24	9.9
	Total	242	100
2	Reason for saying institutional delivery is better place of delivery (n=218)		
	They save my life	153	70.2
	They are polite	7	3.3
	They reduce my anxiety	16	7.3
	The new born get good care	42	19.2
	Total	218	100
3	Reason for saying institutional delivery is not better place of delivery (n=24)		
	Religion & cultural practice doesn't allow	9	37.5
	TBA is better	7	29.2
	Fear of male attendant	0	0
	Fear of episiotomy	3	12.5
	Fear of operation	5	20.8
	Total	24	100

From a total of 242 mothers 158 (65.3%) of them have delivered at health institution previously while 84(34.7%) of them have never delivered at health institution before. Out of 158 mothers who have delivered at health institution before 141 (89.2%) were satisfied by the care given & 17(10.7%) were not satisfied. Reported reasons for dissatisfaction were leave alone while they were in labor 5(29.4%), there is disturbance shout 7(41.3%), birth attendant examined roughly 2(11.7%) and Physical & Psychological injury 3(17.6%).

Practice of institutional delivery

The overall practice of institutional delivery of last child in this study is 141 (58.3%).

The number of pregnancy all together in our study population were, one pregnancy is 84(34.7%), Two to five pregnancies are 131(54.1%), six to ten 24(9.9%), above ten are 3(1.2%). However, in the study population all have at least one delivery in the past five years, 175(72.3%) have one pregnancy & 67(27.7%) have two to five pregnancy in past five years.

Concerning number of living children, 101(41.7%) of mothers have one living children, 47(19.5%) have two, 24(9.9%) have three, 36(14.9%) have four and 34(14%) of mothers have above four living children.

Regarding parity, from a total of 242 respondents 94(38.8%) have one alive delivery, 50(20.7%) two, 27(11.2%) three, 32(13.2%) four and 39(16.1%) have above four alive deliveries.

Majority 230(95%) of mothers have alive deliveries in all pregnancies. Among alive deliveries, 28(12.2%) dies at home and 6(2.6%) were died at health institution. Out of those deaths 9(26.5%) were died immediately after delivery, 3(8.8%) within 30 min and 22(64.7%) were died after 30 minutes of delivery.

Proportion of mothers who have ANC follow up and who don't have in their Last child.

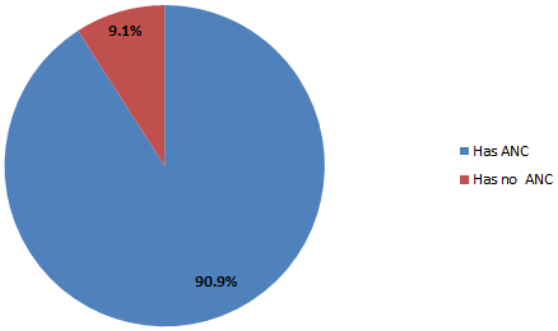


Figure4: ANC follow up in Adaba town, 2005 E.C.

Out of 242 mothers, 22(9.1%) of them who have no ANC follow up in their last child and their reported reason were, no idea about importance of ANC 9(40.9%), shortage of time (too busy) 5(22.7%), no money for transportation to health institution 5(22.7%) and dislike of the way health workers threat pregnant women 3(13.7%).

Table3: ANC status, Number of visit and reason for not having ANC follow up of respondents for child last in Adaba town, 2005 E.C.

S .No	Variables		No	%
1	ANC status	have	220	90.9
		Have no	22	9.1
2	Number of visit	once	0	0
		Twice	10	4.5
		Three times	52	23.4
		>Three times	160	72.07
3	Reason for not having ANC follow up	Too busy	3	15
		No idea about importance of ANC	9	45
		No money for transportation	5	25
		Dislike the way health workers treat pregnant mothers	1	5
		Other	2	10

From a total of 242 respondents 110(45.5%) of mothers deliver their first child at health institution, but out of 151 mothers who had more than one pregnancy 54 (35.7%) delivery their second child at health institution i.e. institutional delivery decreases in subsequent deliveries. (Table-4)

Table4: Attendant and place of delivery in Adaba town 2005 E.C.

Subsequent deliveries	Place of delivery & attendants												Total	
	Home										HI			
	Family		TBA		TTBA		Neighbor		HP					
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1st delivery	66	27.3	27	11.2	20	8.3	16	6.6	3	1.2	110	45.5	242	100
2nd delivery	46	30.4	12	7.9	13	8.7	24	8.6	2	1.4	54	35.7	151	100
3rd delivery	29	27.8	10	9.6	14	13.3	11	10.5	5	4.6	36	43.4	104	100
4th delivery	23	29.9	5	6.6	7	9.89	9	11.8	1	1.2	32	41.5	77	100
Last delivery	54	22.3	9	3.7	19	7.9	17	7	2	8	141	58.3	242	100
Total	218	26.8	63	7.6	73	8.9	77	9.4	13	1.6	373	45.8	817	100

Out of 242 mothers, 141(58.2%), gave birth of their last child at health facility among them majority were 90 %(63.8%), gave through spontaneous vaginal delivery. (Figure-5).

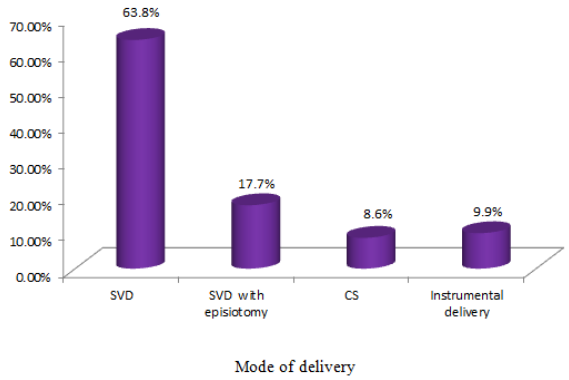


Figure5: Mode of delivery of last child at health facility in Adaba town, 2005 E.C.

Factors affecting delivery of institution

Access to health service for the study population is 100%. The length of time spent by mother to reach the health institution is <15 minutes for 117 (48.3%), 15-30 minutes for 73(31%) and >30 minutes for 52 (21.5%). And reported means of transportation are on foot 182(75.2%), wheel cart 48(19.8%), private transport 8(3.3%), public transport 4(1.7%).

Table5: Decision maker about place of delivery and source of maternal health information in Adaba town 2005 E.C.

S. No	Variables		No	%
1	Decision maker about place of delivery	Self	44	18.2
		Husband	2	0.8
		All family member	194	80.2
		Other	2	0.8
2	Source of information about maternal health	Radio	81	33.5
		TV	155	64
		Health education at health institution	88	36.4
		During ANC	87	36
		Other	25	10.3

Factors affecting preference of place of delivery Preference of place of delivery is affected by many factors.

Table6: Socio-demographic and obstetric factors affecting/ influencing preference of place of delivery after chi-square test in Adaba town, 2005 E.C.

S.No	Variables		Home		Institution		Chi square (x2)95% CI	Df	p-value		
			No	%						No	%
	Age	15-19	4	28.6	10	71.4	22.876	6			<0.005 (0.001)
		20-24	30	47.6	39	61.9					
		25-29	18	26.5	50	73.5					
		30-34	27	69.2	12	30.9					
		35-39	22	48.8	23	51.2					
		40-44	1	25.0	3	75.0					
		45-49	2	22.2	7	77.8					
2	Material status	single	0	0	0	0	17.05	3			<0.005 (0.001)
		Married	63	34.6	119	65.4					
		Divorced	24	70.6	10	29.4					
		Widowed	4	57.1	3	42.9					
		Separated	10	52.6	9	47.4					
3	Religion	Orthodox	47	51.1	45	48.9	10.273	2			<0.005 (0.006)
		Muslim	40	32.0	85	68.0					
		Protestant	14	56.0	11	44.0					
		Other	0	0	0	0					
4	Occupation	House wife	71	46.4	82	54.6	11.442	4			<0.005 (0.022)
		Merchant	14	31.8	30	68.2					
		Government employee	5	19.2	21	80.8					
		Private employee	6	50.0	6	50.0					
		Daily laborer	5	71.4	2	28.6					

		Other	0	0	0	0			
5	Educational level	None	35	79.5	9	20.5	39.094	3	<0.005 (0.000)
		Read and write	13	52.0	12	48.0			
		Primary	32	37.6	53	62.4			
		Secondary and above	21	23.9	67	76.1			
6	Monthly income	<700	50	53.2	44	46.8	18.416	3	<0.005 (0.000)
		700-1499	39	44.8	48	55.2			
		1500-2299	11	22.4	38	77.6			
		>2300	1	8.3	11	91.7			
7	Number of alive deliveries	One	28	29.8	66	70.2	11.203	4	<0.005 (0.024)
		Two	26	52.0	24	48.0			
		Three	16	59.2	11	40.7			
		Four	14	43.8	18	56.2			
		Above four	17	43.6	22	56.4			
8	ANC	Yes	83	37.7	137	62.3	15.989	1	<0.005 (0.000)
		No	18	81.8	4	18.2			

Discussion

This community based cross sectional study attempts to assess knowledge, attitude and practice 0f mothers in child bearing age towards institutional delivery in Adaba town, Arsi zone, Oromia region, Ethiopia.

The overall practice of institutional delivery of last child in our study is 58.3% which is higher when compared to the study done in Kenya (42%), SSA (47%) and Asia (40%). [23, 6] Also it is very higher when compared to national level institutional delivery (10.8%) according to EDHS 2011 [12]. This difference could be due to increased facility of health services as time goes and because of our research conducted within the town.

This study revealed that out of 242 mothers in reproductive age group, 212(87.6%) have knowledge and 218(90.1%) have positive attitude towards institutional delivery.

According to this study monthly income has strong association with institutional delivery. As the monthly income increases above poverty line (700birr), more mothers were more likely to deliver at health institution (chi-square=18.416, p=0.000). [14] This is because of the reason that mothers can afford the cost of health service and transportation as their income level becomes higher. Study conducted in south west Ethiopia shows that, family with low monthly income (below 100birr per month) tends to use health institutional delivery at lower proportion.

According to the result of this study, use of health institution as place of delivery is associated with maternal age .As this study shows; those mothers in the age range between 15-19,25-29,45-49 were more likely to deliver at health institution than those mothers in other range. The reason behind this is those mothers (25-29) are intellectually matured and they are nearer to health information as they interact in many social affairs, those mothers (15-19) are primi-gravida and fear complications. Those mothers (45-49) may develop complications as their age increases.

Women education is also associated with place of delivery. Those women with no education were less likely to deliver at health institution than those with primary and secondary education (chi-square=39.094, p=0.000). [18] The reason behind is educated women are expected to have knowledge about risk of home delivery that they are more likely to deliver at health institution than those with little knowledge.

The other factor which associated with place of delivery is ANC follow up, which has significant association with institutional delivery (chi-square=15.989, p=0.000).This is due to advice given about importance of institutional delivery during ANC visits. According to the finding from this study, out of 220 mothers who have ANC follow up in their last child, 137(62.3%) had delivered at health institution. This is higher when compared to study done in the country in general and Oromia in particular at which 30% of eligible mothers received ANC service and only 8% of mothers delivered at health facility in the region.

In this study, distance from health institution (chi-square=2.456, p=0.299) and means of transportation (chi-square=7.467, p=0.058) have no association with institutional delivery.

Conclusion

- Practice of institutional delivery is still low in the study area.
- Age, religion, income, educational level, occupation, ANC follow up and parity affect utilization of institutional delivery.
- Distances, and means of transportation have no association with institutional delivery.
- Cultural practice is one of the major factors that make mothers not to deliver at health institution.
- Most mothers have Knowledge and positive attitude of institutional delivery in the study area.

References

1. Kaso M, Addisse M. Birth preparedness and complication readiness in Robe Woreda, Arsi Zone, Oromia Region, Central Ethiopia: a cross-sectional study. Reprod Health. 2014; 11(1):1-2.
2. Gurmu Y, Edea G, Molla E, Tari D, Lamesa E, Belay E. Knowledge, Attitude and Practice of Mothers Toward Immunization of Their Infants in Shashemene Referral Hospital, West Arsi Zone, Oromia Regional State, Ethiopia. Am J Biomed Sci. 2021; 9(2):111-9.

3. Shigute T, Tejineh S, Tadesse L. Institutional delivery service utilization and associated factors among women of child bearing age at Boset Woreda, Oromia regional state, central Ethiopia. J Womens Health. 2017; 6(394):2167-0420.
4. Fekadu H, Kumera A, Yesuf EA, Hussien G, Tafa M. Prevalence and determinant factors of long acting contraceptive utilization among married women of reproductive age in Adaba Town, West Arsi Zone, Oromia, Ethiopia. J Womens Health. 2017; 6(1):2167-0420.
5. Assefa L, Alemayehu M, Debie A. Magnitude of institutional delivery service utilization and associated factors among women in pastoral community of Awash Fentale district Afar Regional State, Ethiopia. BMC research notes. 2018; 11(1):1-6.
6. Ensermu T. ASSESSMENT ON KNOWLEDGE, TTITUDE AND PRACTICE TOWARDS CONTRACEPTIVE USAGE AMONG WOMEN AT REPRODUCTIVE AGE GROUP OF ETEYA TOWN, ARSI ZONE, SOUTH EAST OF ETHIOPIA (Doctoral dissertation, St. Mary's University).
7. Negussie GT, Jima A, Shiferaw A. Assessment of Knowledge, Attitude and Utilization of Emergency Contraception Among Women of Reproductive Age in Arsi Zone, Ethiopia.
8. Belda SS, Gebremariam MB. Birth preparedness, complication readiness and other determinants of place of delivery among mothers in Goba District, Bale Zone, South East Ethiopia. BMC pregnancy and childbirth. 2016; 16(1):1-2.
9. Bogale N, Agero G. YOUTH FRIENDLY HEALTH CARE SERVICES UTILIZATION AND ASSOCIATED FACTORS AMONG HIGH SCHOOL STUDENTS IN BOSSAT DISTRICT, OROMIA REGION, ETHIOPIA. Education. 2009.
10. Gultie T, Wasihun B, Kondale M, Balcha B. Home delivery and associated factors among reproductive age women in Shashemene town, Ethiopia. J Womens Health. 2016; 5(300):2167-420.