

Community Based Cross-Sectional Study: Preferences Of Place of delivery And Birth Attendants Among Women Of Hashemene Town, Oromia Regional State 2012

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Abstract: Clients' preference to place of delivery and types of attendants are important factors. Female patients prefer female professionals due to various reasons. Findings show that Women are not using available and accessible maternity services. This is illustrated by low institutional delivery compared to high antenatal care (ANC). Objective: To assess preference of place of delivery, delivery attendants and associated factors among women at Shashemene town. Methods: Cross-sectional study was conducted with mixed approach on a total of 288 women who have child less than one year of age during the survey. Multi stage sampling technique was used. Quantitative Data was entered into EPI info and analyzed using SPSS 16.0 software. Analysis was done using logistic regression. For 6FGDs and 2IDI Topic guides were reviewed manually and electronically, then responses were transcribed and translated later coded into categories and grouped into theme thematically. Result: out of 288 women of reproductive age 95.8% responded to the questionnaires. Only 34.9%, 22.6% and 42.5% of the women attended ANC during their first, second and third trimester respectively. Regarding place of delivery only 37.7 % of women gave birth at home. In multivariate analysis the likelihood of attending and delivering at health facility was high for women whose income 1021-1530/month [OR 4.2, 95%CI: (1.97, 9.32)], education greater or equal to secondary [OR 6.8, 95% CI: (2.9, 15.8)] and positive husband attitude toward health facility [OR 4.8, 95% CI: (1.3, 17.96)]. The chance of giving birth at home was high for those aged between 15-19 years (OR 6.3, 95%CI: (2.7, 14.9)). 30% of women explained as they feel comfortable being at home as the most frequent reason for not delivering at health facility followed by to gain family care (29%) and lack of privacy (16.2%). Conclusions: Most women preferred female health professionals, still there are women preferred home as place of deliver. Socio-demographic and cultural factors found to be barriers to preference of services. Policies about maternity health care and education should take into account preferences of women. So, mitigation measure is in need to ensure right and informed choice.

Key words: Women Preference, Delivery place, delivery attendants and services utilization Shashemene, Oromia, Ethiopia

1. Introduction

Globally the discrepancy between antenatal care (ANC) and delivery services used by health professions vary considerably. Seventy-five years of routine hospital birth in the United State have produced no studies to show it is safer than having a baby at home with a skilled birth attendant [1]. Saraguro Indians in Ecuador did not use the affordable, accessible maternal care; they feel as professionals violate women's privacy during childbirth as well as many health professionals are men who hold true in Ethiopia where only 10% of women deliver with SBAs [2],[3]. Interestingly, there are best practices in Malaysia, SirLanka and Thailand that improve skilled birth attendants (SBAs) regardless of place of delivery. Recognition of the importance for health systems to take into account woman individual needs in maternity care is vital as shown in Syrian study; female patients prefer female Physician's [4]. Study in Tanzania, revealed that more than 90% of all pregnant women attend ANC at least once less than five in ten receive SBAs yet [5]. According to studies conducted in rural Butajira, Adamitulu And South West Ethiopia 88% and 83% mothers preferred to give birth at home respectively [6], [7], [8]. According to Ethiopian Demographic and health survey [EDHS 2011] national, ANC, SBAs and delivery at health facility (HF) were 33.9 %, 10% and 9.9% respectively. While great discrepancies among the regions were observed, in Oromia institutional delivery (ID) is very low where 92 % take place at home [3]. According to Oromia Regional Health Bureau coverage of ANC was

73%, SBAs 32% and postnatal care (PNC) 31% has shown contrary figure as of 2002 Ethiopian fiscal year (EFY) (9). This reality leads to the following questions: Is preference of women affecting place of delivery and attendants? Why institution delivery (ID) with SBA is very low versus high ANC? So, the issues of Women's choice and reasons for preferences have to be addressed as key central role.

1.2. Statement of the problems

Most women preferred home delivery to health facility [1],[6],[7],[8] in spite of policies to improve maternity care services currently, Ethiopia considering averting the huge problem of very low SBAs and high maternal mortality ratio (MMR) via provision of free maternity care services to meet millennium development goals (MDGs). However, services are not utilized due to socio cultural, men dominance in decision making power, limited access and others [6]. Women encompass almost half of a given society; all Africa governments are introducing free health care for pregnant women and under 5 children to meet MDGs 4 and 5 by making all trained health hands to deal with this emergency; still many of them in developing countries are at greater disadvantage. Experience from other countries revealed that women are not utilizing even the available and accessible maternity care services which is true for Ethiopia, where 90 % of delivery taken place at home. Correspondingly, in Oromia in particular, maternity care services use is very low [3]. One justification for poor health

outcomes of majority women in the country is not using health service for various reasons. Therefore, there is something blocking women from utilizing maternity care, why? Still 83- 88%, mothers preferred to give birth at home [6], [7], [8]. Indeed there's a need to investigate.

1.3. Rational of the study

Though many studies have been carried out to identify and understand why maternal health care services are underutilized in Ethiopia, there is still no remarkable change. For instance, according to EDHS 2011, 31.3% and 8.1% of women received ANC and SBAs in Oromia respectively [3]. In other words, Utilization of maternity care service by in large is very low which holds back movement towards MDGs. This reflected by the actual place of delivery and attendants' nature is not harmonized with the preferred place of delivery and attendants. There is very limited study on preferences of women to delivery place and attendants in Oromia which shows wide gap of information though MDGs is priority concern for government and donors for reduction of MMR yet need due attention. Hoping that, the results of this study will aware policy makers and concerned bodies regarding women preferences to take appropriate action for ensuring the right choice. Bearing this in mind, this study is designed to find out the possible reasons for the preferences of women to place of delivery and attendants. Thus, this study is designed to assess the preferences of women to delivery place and attendants as well as attempting to explore associated factors that are expected to hamper utilization of maternity care at Shashemene town. So, the findings of this study will aware policy makers and concerned bodies on women's preferences to suggest and understand problems regarding place of delivery and attendants in order to amend programs or take proper mitigation on intervention strategy.

3. Objectives

3.1. General Objective: The main objective of the study was to assess preference of place of delivery, delivery attendants and associated factors among women at Shashemene town.

3.2. Specific objectives:

To identify women preference of place of delivery at Shashemene town

To identify women preference of delivery attendants at Shashemene town

To assess factors associated with preference of women at Shashemene town

4. Methodology

4.1. Study Design and methods

A cross-sectional community based study with quantitative and qualitative methods was conducted among women of reproductive age groups at Shashemene town.

4.2. Study Setting and period

The study was conducted in Shashemene town from December 2011- January 2012. The town has a total population of 140,876 of which 3.8% are under one child. It is located at 250 kilometers south of the capital, Finfinne situated at a crossroad to Bale, Arsi, Zeway, Hawasa and most parts of Southern Ethiopia. The town is divided in to 8 sub cities and 11 Kebeles because of a recent administrative restructuring with an average population of over 5,353 according to town's health offices of 2003 E.C [personal communication]. The health bureau is using 8 sub cities as kebele (the smallest administrative units in government structure). It is selected since the transition town which connects many parts of rural and urban Ethiopia. Thus, migrants are attracted for trading possibilities and seasonal employment as well as it is the most ethnically mixed town in Ethiopia manifesting cultural diversity which may contribute valuable information from various angle.

4.3. Study Population

Source Population- all women of reproductive age living in Shashemene town while **Study Population were** all women who gave birth in the last one year from Nov.1, 2011-Oct.30, 2012.

Inclusion Criteria- all women of reproductive age living in Shashemene town not less than nine months during data collection period who gave birth in the last one year and or have under one year child were included .

Exclusion Criteria- all women with reproductive age group, critically sick, mentally ill, visitors, and respondents of FGDs and IDI were excluded from quantitative part.

4.4 Sampling Techniques

Sample size was determined by single mean population proportion formula with the assumptions of $Z_{\alpha/2} = 1.96$ (level of significance at $\alpha=0.05$), $d=0.05$, (level of precision), Where, $p=23.3\%$, (prevalence obtained from previous care attendances and preference of site of delivery [21].

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

The required sample size for this study was 274 adding 5% for non response the final sample were 288 women.

4.5 Sampling Procedure

A total of 288 women sample were selected using Multi-Stage Sampling procedure. Simple random sampling techniques were applied to identify 3 kebeles of 8 by lottery method, assuming under one year children 3.8% of the total population and then identified and listed 1714 households from respective kebeles in which eligible women were found by house to house surveying . Study population were allocated among three kebeles: Bulchana, Burkagudina and Alelu which encompasses a total population of 16853, 13860 and 14391 with under one population of 640, 547, and 527 respectively. Sample of study population of 107, 92 and 89 were obtained based on proportions to size of the population through computer generated random number respectively. If more than one woman was found in one household lottery methods was considered. If no study subjects were found, the next house would be considered;

revisit was arranged at least two times and continues till proposed sample sizes were obtained. Eventually mark was put on the door to avoid overlapping or missing a sampling frame of the house. Purposive and convenience sampling technique was utilized for qualitative approach.

4.6. Data Collection tools and Methods

Data collection tools and Procedure for Quantitative Data was collected by trained female nurses using face to face interview administered questionnaire which was amended from others studies and translated to local language A fan Oromo by expert in both language in turn back translated to English by another expert to ensure consistency. Training was given for data collectors and supervisor on collection, cleaning technique and objective of the study, Questionnaire and sampling methods for one day at Shashemene by investigator. Pre-test study was initiated on 5% of the total sample size at the nearby study areas kebele. The recruitment of study team was based on fluency of local language, sex consideration plus their previous experiences of data collection. Individual respondents from respective household were interviewed using Semi-structured and pretested questionnaire. Phenomenological design of Qualitative study approach was conducted among FGDs of two group from health professionals, women of reproductive age from community and one group from male, HEWS which consisted minimum of six member was included in to study till saturation of ideas beside IDI which was conducted with 2TBAs. FGD groups were interviewed by principal investigator, following quantitative study using semi-structured topic guide, questionnaire. The discussion was Tape recorded and later transcribed. The participant and the investigator were site in a circle or around a table for the discussion. The investigators were begin the session by introducing himself and explain the purpose of the study. The FGDs were last for about 60 to 90 minutes. The investigator was in charge of facilitating he discussion he was bring the discussion back to the topic at hand should it go beyond the main issues. The investigator was not giving any indication (verbal or physical) that would encourage certain types of comments or discourage other types of comments. In short, the investigator was guide the discussion when necessary carefully not to lead the discussion. It was our role to facilitate, but role of participant were to tell us what you think. The note taker had the sole responsibility of capturing the sessions accurately as possible. This includes not only Participants' responses, but also nonverbal actions, physical environment, atmosphere of the session, via observations. This approach allowed us to guide the discussions around key topics related to preferences of women to delivery place and attendants. The main topics to be covered includes reasons for preference of women to delivery place and attendants in relation to the access for SBAs, perceptions of the quality of ANC, at available HF for preferences and factors underlying high ANC but low SDAs.

4.7. Operational Definitions

Access to Health Facility: The pregnant women being no more than an hour from HF by local means of transportation, or availability of HF within one hour's walk or travel [29]. **Birth attendant preference:** Pregnant women, who had attended maternity clinics or not during the time of ANC, birth and choose of either sex or different types of attendants (health care workers or TBAs) based on their preferences /interest. **Skilled attendants:** refers exclusively to people with midwifery skills (for example midwives, doctors and nurses) who have been trained to proficiency in the skills necessary to manage normal deliveries and diagnose, manage or refer obstetric complication [16],[23],[29],[30]. **Traditional birth attendants:** A birth attendant who initially acquired the ability by delivering babies herself or through apprenticeship to other TBAs [16],[23],[29],[30]. **TTBAs:** Those TBAs who have undergone subsequent training and are integrated in the formal healthcare system [16],[23],[29],[30]. **Towns:** are localities in which urban kebele administrations that have 1000 or more people whose inhabitants are primarily engaged in non-agricultural activities as town irrespective of whether urban administration has been established or not [29]. **Household:** defined as people who live together in a single home. **Knowledge on ANC, place of delivery and care provider:** Scores are given to the responses of each question in the respective factors for eight questions. Thus, women are considered knowledgeable when she answered four or more knowledge questions (start ANC, identify ANC importance as anticipate and detect problems, and manage problems, better care for mothers and baby then plan for ID). **Favourable Practice:** it is considered as favourable practice when the mother practice at least two question out of four practice questions (visited HF for ANC during pregnancy, delivered in HF, planned ID, and preferred ID). **Attitude towards delivery place / care providers:** it is considered as positive attitude towards health care providers and/or ID when mothers answered two questions out of attitudes 'question (positive view towards HF, belief of better out comes from ID, positive view towards HCWs). **Preference for place of delivery:** preferred either home or health facility based on women choice for delivery.

4.8. Data Processing and Analysis:

Quantitative Data was entered into EPI info and analyzed using SPSS 16.0 software. Analysis would be done using different descriptive and inferential statistics tools like mean, median, percentage, odds ratio; Moreover, important to consider preference as positive and negative for those prefer SBAs versus TBAs in relation to place of delivery. Multivariate analyses were used to control confounders and detect strength of association. The transcripts were coded using principles of thematic analysis both manually and electronically using open code. Thus, coding of transcripts would be done and consists theme that were directly related to the objective; coding processes involved categorization, then identifying major themes in each of the transcripts during data analysis. Identified themes would be compared across the transcripts to determine variations

and similarity in the perspectives of the study participants on women preferences to delivery place, birth attendants and associated factors.

4.9. Data quality management

The quality of the data maintained through checking for completeness of the questionnaires by data collectors, and investigator on daily basis. Beside 5% of women randomly reinter viewed by principal investigator. Each discussion was tape recorded not to miss all issues discussed. Finally, the investigator transcribed the tape record after each section. The transcription was checked by interviewees for consistency and accuracy for FGDs.

4.10. Variables of the study

Dependent variables: Preference of birth attendant and place of delivery. **Independent variables:** socio-demographic factors (age, religion, ethnicity, marital status, occupations, monthly income, previous bad obstetric history, gravidity, parity, family size), Individual women factors (attitude towards pregnancy, birth attendants and delivery place), Knowledge of dangerous health problems related to pregnancy, delivery and birth attendants, health service barriers (cost of health services, distances, and opinion to ward quality of care).

4.11 Ethical Considerations

Ethical clearance was obtained from institutional review board of College of Health Sciences, AAU. Official letter was written by School of Public Health to Oromia Regional Health Bureau. Beside these permission from administrative bodies of Officials of the town was obtained on the study. Study participants were informed about the objectives and the procedures of the study. Verbal consent was obtained from each participant. Respondents were included in the study on voluntary bases after they had given verbal consents. Maximum effort was taken to keep privacy and confidentiality of respondents during data collection and processing. Keeping privacy and anonymity guaranteed regarding their names and any other personal identification. Eventually, information regarding importance of SBAs and complication related to pregnancy, birth and postnatal care was given to respondents by interviewers.

4.12. Dissemination of the study result

The thesis was presented to the college of health Sciences, School of public health, AAU advisors and examiner. Copies are given to the Oromia Regional Health Bureau, Shashemene town Health Department, and Shashemene Administrative office so that it can be as a source of information for possible planning and execution of health action. Moreover, information will be provided as necessary to other relevant bodies .last not least publication in professional journals and presentations in conferences for sharing scientific knowledge.

5. Result

A total of 7,580 households were visited in three kebeles for identifying 1714 households in which eligible mothers who delivered one year back had been lived and obtained 288 women as total sample prior to the date of survey. Assuming the under one proportion is equal with mothers of under one child A total of 276 women were involved in

the study revealed a response rate of 95.8%. For qualitative six FGDs encompass six to eight members and two In-depth interviewees from TTBAAs were conducted including a total of 42 participants.

Socio-demographic characteristic of the respondents

Most of the respondents belong to age group of 20-29 years 153 (55.4%) with mean age of 27.3 (± 6.0) years. Nearly, 70.4% of the respondents attended formal education while 81(29.6%) were illiterate. Regarding the marital status, more than half of respondents 155(56.2%) were married between the ages of 15-19 years followed 20-24 year old 72(26.1%). correspondingly, around 130(47.1%) women become pregnant within the age groups of 15-19 years. Concerning family income ,of 276 respondents around 87(31%) hand less than 510 Ethiopian Birr followed by 83(30.1%) who had income of greater or equal to 1021-1530 Ethiopian Birr, 70(25.4%) had income 511-1020 Ethiopian Birr while the rest 36(13%) had income 1021-1530 Ethiopian Birr With the median monthly income of 900Eth.Birr (1US Dollar=17.70). Occupation wise, out of 276 majorities of the respondents were self employed 227(82.2%) followed by 23(8.4%) of government while the rest 26(9.4%) have no job. similarly, 203(73.55%) of husbands occupation were still from self employed followed by government 70(25.36%) but 2(.73%) have no job. characteristics of the respondents were summarized as follows:

Table 1: Socio- demographic characteristics of reproductive age women at Shashemene town, Dec-Jan, 2012(n=276)

Variables	Categories	No	(%)
Respondents Age (years)	15-19	23	8.3
	20-24	61	22.1
	25-29	92	33.3
	30+	100	36.2
Literacy	Illiterate	82	29.7
	Read & write	43	15.6
	Elementary	61	22.1
	≥ Secondary	90	32.6
Ethnicity	Oromo	111	40.2
	Amhara	53	19.2
	wolaita	44	15.9
	Tigre	22	8.0
	Gurage	35	12.7
	Other	11	4.0
Religion	Muslim	111	40.2
	Orthodox	93	33.7
	Catholic	13	4.7
	Protestant	59	21.4
Marital status	Married	258	93.5
	Divorced	10	3.6
	widowed	3	1.1
	unmarried	5	1.8
Husband education	Illiterate	40	14.5
	read & write	37	13.4
	Elementary	66	23.9
	≥ secondary	133	48.2

Table 2: Socio-demiographic characteristics of FGDs participants and IDI of reproductive age women ,and men of qualitative data in Shashemene town, Dec.-Jan, 2012 (n=42)

Characteristics	FGD S	IDI
Sex		
Male	8	0
Female	32	2
Age in years		
20-24	16	0
25-29	10	2
30+	14	0
Education		
Illiterate	4	2
Primary	5	0
Secondary	31	0
Marital status		
Unmarried	4	2
Married	36	0

Out of 42 interviewees 81% of them were female while the rest 19% were male from FGDs. Most of the interviewees were married 36(86%) and 73.8% interviewees' education were secondary and above. Most of the respondents were married and got pregnant at the age of 15-19 years while the number of women who had still birth, abortion, and infant death were 6(2.2%), 43(15.6%),

and 25(9.1%) respectively.

Table 3: Obstetric, and delivery factors of reproductive age women in Shashemene town, Dec.-Jan, 2012 (n=276)

variables (%)	category	No	
Number of women who had abortions	0	233	84.4
	1	38	13.8
	2	5	1.8
No of women who had infant deaths	0	251	90.9
	1	15	5.4
	≥2	10	3.6
Number of Parity	1-2	142	51.4
	3-4	115	41.7
	≥5	19	6.9
Age at first marriage(years)	<15	23	8.3
	15-19		
	20-24	155	56.2
	25-29	72	26.1
	+30	23	8.3
Age at first pregnancy(years)	<15	12	4.3
	15-19	130	47.1
	20-24	94	34.1
	25-29	37	13.4
	+30	3	1.1
Birth order	1-2	156	56.5
	3-4		
	≥5	108	39.1
		12	4.3

Though 186(67.4%) were ever visiting Health Facility for ANC, the most common medical reasons for visiting were vomiting which accounts around 75(27.2%). *KAP of respondents about MHC services among child bearing women are described as follows:* Out of 276(95.8%), 152(55.1%) and 98(35.5%) respondents reported that as ANC is essential to care for both the health of mother, baby and to manage health problems respectively. Moreover 5(1.8%) claimed as it was important to anticipate and detect the problems associated with Pregnancy. While

computing the knowledge of respondents, 174(63%) considered as knowledgeable. Interestingly, 102(37.0%) respondents identified as they had little /no knowledge regarding maternity health care services. Concerning the practice of MHC, one hundred and eight- five 67% explained as they had favorable practice while the rest 91(33%) had little/unfavorable practice. Regarding attitudes towards MHC, 170(61.6%) of women have positive attitudes whereas the rest 106 (38.4%) were considered as negative attitude. 60.8% of husbands have positive

attitudes where as 39.2% of husbands had negative attitude as explained by their wife. Correspondingly, positive husband attitude towards HF guard mothers from home delivery (OR, 0.02, 95% CI: 0.01, 0.06) consistent with study in AddisAbaba, Afar, North Gondar. All participants agreed upon, as women use ANC and knew as it was important for the health of mother and baby. But there are still women, who believed that they will develop some kind of illness related to cold environment if they delivered at health facility (*Theme 1, table4*).

Thematic approach analysis of phenomenological design: Theme 1: Women perception is affected because of negative attitude of HCWs and negatively perceived benefit of mother’s towards MHC: the theme state about the attitude of the respondents towards MHC. Data driven codes were applied to the text with the intent of identifying meaningful units of text

Table 4: Connecting the codes, categories and identifying themes of all eight data sources, in relation to perception towards MHC among women in Shashemene town, Dec-Jan, 2012(n=42).

Codes	categories	Theme
Mothers-high-service-use-due to-free- services Mothers-have-awareness-services-use Mothers-not-use-services-don’t-know- benefit Unfair hospitality-of-HCWs-leads-to- TBAs Difference-in-seeking-aid	Perception towards MHC services from providers	Perception towards MHC among women is affected because of negative attitude HCWs and negatively perceived benefit of mothers

For instance, 45 years old TTBA indicated the situation as follows: *The women believe that“... if we give birth in health institutions “qorraatu nudhawaa” that means” got cold attack” whereas when we give birth at home, there is secured privacy, by shutting the door and cover the lady. Even no one observed at here.”[Panel A: TTBA].* Female Health professional put in other supporting ideas which was mentioned as mothers use ANC but not delivery and postnatal care by saying: *“the mothers come for ANC...; However, on the 4th visit around term*

when they were informed about birth preparedness especially concerning money in case referral occasion, they complained shortage of money, to my view it’s not because of lack wareness, but women are highly accustomed to home delivery than Institutional Delivery.”[Panel F: Health Professionals]. Out of those visiting health facilities for ANC 186(67.4%) ,65(34.9%) of women made their first ANC visit before the four month of pregnancy, almost three folds more from 11% in the 2011EDHS.(fig: 1)

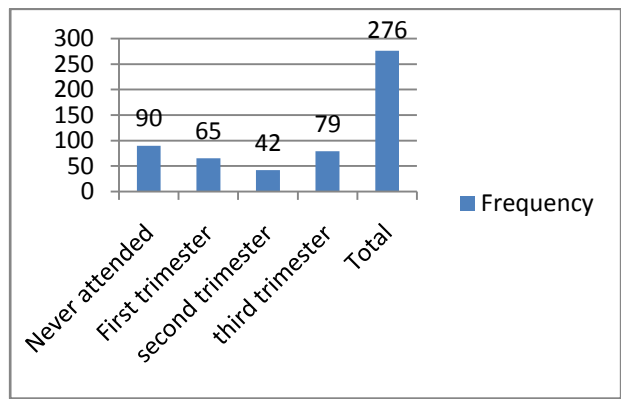


Fig 1: Bar graph on status of ANC attendance and time of on set among women of reproductive age group in Shashemene town, Dec-Jan, 2012.

78.6% of women with a live birth in the year preceding the survey made two-four ANC visits during the length of their pregnancy, marked improvement from 46% reported in the 2011EDHS.whereas 21.4% visits only one time in this study. It was interesting, if not exaggerated, to find mothers who did not attend ANC 90 (32.6%) mainly due to poor approach of HCWs 41(68.9%) and negative attitude of husband 29(39.7%). In line with these the qualitative finding

support quantitative finding. According to the interviewees’ explanation, the main factors affecting the MHC were: cultural influence, lack of awareness, maltreatment of professionals, shortage of money, issue of privacy, and transportation problems considered as the major one. Almost all FGDs participants and TTBAS agreed up on them. (*Theme2, table5*) Themes 2: Factors affecting preference of women on seeking MHC use. Various factors

affect preference on seeking MHC use among women of reproductive ages. *This theme expresses about factors*

affecting preference of women on maternity health care services use.

Table 5: Connecting codes, categories and themes of all eight data sources, in relation to factors that affect preference of women on seeking MHC in Shashemene town, Dec-Jan, 2012(n=42)

codes	categories	Themes
Prefer-home-due to-distrust-on-HCWs-lack-of-money-transport-issues	Pull-push	Factors affecting preference of women
Prefer-home-due to-inexperienced-HCWs-privacy-		
High-services-expense-transportation-cost	Cultural-influence	Factors affecting preference of women on seeking MHC use
Destination-problems-lack-of-awareness-prefer-home professionals -Lack -sympathy		
Relay-on-god-trust-on-TBAs-when-labor-smooth-and-		
Secured-privacy-religion-cultural-issues-prefer-TBAs Sex-similarity-professions-undermine-dignity-trust-on-		
male-dominancy-fear-of-cold-attack-mother-prefer-	Maltreatment	Factors affecting preference of women on seeking MHC
Mothers-prefer-home-dueto-female-attendants-		
issue Mothers-prefer-home-due to-distrust-on-privacy-accustomed home-birth		
Mothers-prefer-female-attendants-sex-similarity Irresponsible-HCWs-lack-of-knowledge-distrust-on-HCWs-prefer-home, Poor-HCWs-hospitality-expose-privacy-prefer-TBAs, negligence-unsafe-delivery-		
treatment-intolerable-services-cost-home/TBAs		

One female from community panel points out by saying: "...there is verbal abuse from Health professionals during delivery; no one treats the mother as TBA. They must share mothers' problem as TBA." [Panel F: community female panelist]. Key ideas which were raised by TTBA and male panel were partiality in treating urban women versus rural women or rich and poor from professionals' side. Beside these, others deep rooted problems created by professionals were commission from private clinics as it was stated by one of 45years TTBA lady. This issue was too serious and escalating problem. For examples, "... I have seen many laboring mothers coming back to their home without having services after visiting health institutions by looking at facial expression of the professionals "fuula namatti guuru" ganaaneshi atticuhii", I found the ladies gave birth on bed while professionals were sleeping. Look it was crisis. " we do not sleep said TBA. " on the other hand, the services should be free for laboring mothers ,so far it was theoretical, yet not into action at

health facility. That means, there are expenses for the services, transportations and materials. What I want to emphasis is that there are brokers who are working in the government health institutions who refer laboring mothers to private clinics for his/her commissions which should be tackled." In addition, health workers leave working office before the time up. But I am available and accessible twenty -four hours to attend them out of my benefit. My belief is to get mercy from my lord in here after through helping the poor without receiving cents from them. For me, all humans are equal regardless of social back ground, religious, ethnicity, and their social status. For instance, I saw poor lady who had been laboring in Tekleheymanot church at area where no transportation facility or GLOVES; i run on my foot to buy it. Then coming back and attended her in my life." [Panel A: TTBA]. The common place for received maternity health care were mainly from HC 103(37.2%) followed by private clinics 45(16.2%) (Fig: 2)

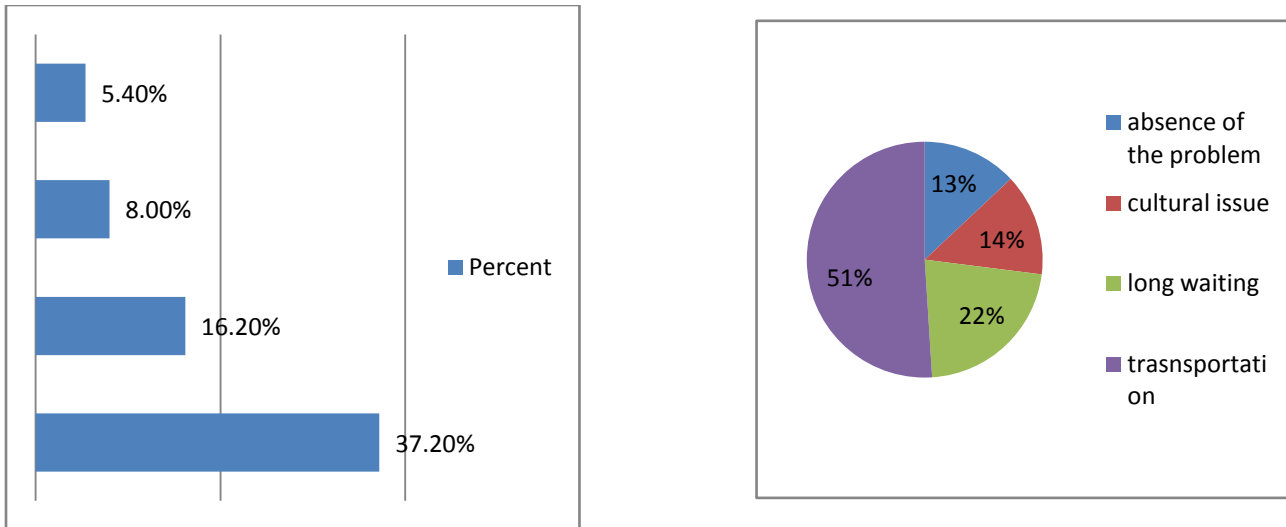


Fig. 2: Bar graph on place of choice for MHC services by women of child bearing age in Shashemene town, Dec-Jan, 2012(n=276).

Fig 3: Pie chart indicating reasons for not attending PNC by the mothers in Shashemene town, Dec. - Jan2012

Nearly, hundred (36.2%) of women planned to deliver at home. only 62.3% were actually delivered at health facility whereas 176(63.8%) preferred facility as place of delivery. The first two days following delivery are critical for monitoring complications arising from the delivery; However, no women return back for PNC follow-up of 174(63%) from home due to transportation problems 51%, followed by long waiting time 22%. considering immediate care, its coverage was 62.3%.(fig: 3) 37.7% of women were actually delivered at home for various reasons: some of the reasons are they feel more comfortable being at home 58(30.2%), to gain family care 29(29%), privacy issues. 16.2%, unable to pay service cost 2.2%, previous bad experience 3.0% and others. Respondents from FGDs participants and TTBA's stated that women preferred to give birth at home due to lack of awareness, absence of problems, shortage of money, female interest, professional discrimination, highly accustomed and trusted on TTBA's and transportation issues. One of the women from HCWs cites the following: "... what I want to emphasis here, there is high coverage regarding ANC, however, the PNC and delivery services are very low which account not even half of ANC since our societies don't have awareness about merit & demerits of maternity health care services. Especially, the rural woman sees visiting HC as if they move up of the mountain; thus, mothers don't come to health facility unless serious condition happen" [panel B: female health professional]. 45years TBAs lady stated reasons for being at home as follows: "Women prefer to get delivery service at home since they usually accustomed to home delivery. In addition to this, they feel fear, shame and shortage of money. Especially, the Muslim's lady prefer female to attend them. Beside this, the health workers don't treat equally for ladies from urban and rural" nama tuffatani" i.e. they undermine the ladies of rural areas." [Panel A: TBAs panelist]. Another example from male FGDs participants stated that women not use facility delivery

because of various reasons: "...privacy is in danger since many professionals encircled the mothers during delivery. There is partiality on rural and town mothers, lack of knowledge, culture, unfair hospitality of health professionals and high intolerable service expense of transportation. Thus, women preferred home delivery." [Panel D: male panelist from community]. In addition to the above condition panel C stated similar issues as follow: "...to me, Health professionals should know the condition in which laboring mother in. for example, I had been insulted by health professionals during institutional delivery; many of them came to me and asked me about my private part for examination. I was examined already. Then they undermined my personality. As the result, I hated them and trusted on TBAs." [Panel C: Female from community]. Most respondents mentioned the reasons why they prefer to deliver at a particular HF was due to services quality 132(47.8) followed by fear of problem of home delivery 33 (12%) and better approach of HCWs 13(4.7%). This holds true for qualitative finding according to participant explanation; service improvement will realize when these stated problems were solved :lack awareness, skill gap of HCWS, inaccessibility of free services delivery, un ethically assigned professionals , transportation and destinations problems were central issue to make services accessible. One of male panelist elaborates this issue as follows (Theme3, table6): "...In my opinion, services will be improved when the health facility solve the following problems : shortage of Transports ,mal treat of the client, improve service quality, accessibility especially making services free, so far, no free services yet. Thus, the mothers develop trust on the services providers." [Panel C: From Male panelists] Theme 3: Services improvements realized via availing and accessing services and providers at the extent of their need. This theme expresses about improvement of maternity health care services

Table 6: Connecting codes, categories and themes of all eight data sources in relation to improvement of maternity health care services use among women in Shashemene town, Dec-Jan, 2012(n=42)

Codes	Categories	Theme
Increased-coverage-raising-HCWs-with-scientific-facts Secured-privacy-solve-problems-of-transport-make-service-free Close skill-gap-of-HCWs-avoid unfair-treatment - confidence-on-HCWs Avoid -malpractice-dishonest-HCWs-due-to-right-violation-trust-on-HCWS Supply-equipments-narrowing-skill-gap	services quality	Services improvements realized via availing and accessing services and providers at the extent of their need.

Concerning types of attendants, 174(63%), 92(33.3%), 9(3.3%) and 1(.4%) of delivery were attended by HCWs, TTBA, self and family respectively. Though majority of respondents were attended by male HCWs 101(36.9%), Most of 151(54.7%) respondents preferred female attendants to male 52(18.8%) where as 73(26.4%) unspecified care providers provided that they safe the health of mother and baby. Out of 151(54.7%) the main reasons the respondents complain as reasons for preferring female Attendant to male were predominately cultural

issues 69(45.4%), shame of male 51(33.6%) religion 26(9.4%), empathy 6(2.2%) and the others. The result of qualitative also in line with this just as follows: Most of them explained about the preference of female attendants to male as participants raised many various issues like: religion, culture, privacy, and maltreatment of health professional, trust on TBAs, sex similarity which enforced them to female attendants in seeking aid. One example, from FGDs participant illustrated here as follows (Them4:table7)

Theme 4: Mothers' preference on place of delivery and birth attendants. *This theme states about mothers' preference on place of delivery and birth attendants.*

Table7: Connecting codes, categories and themes of all eight data sources, in relation to Preference of delivery place and attendants among reproductive age women in Shashemene town, Dce.-Jan, 2012(n=42)

Codes	Categories	Theme
Supply-equipments-narrowing-skill-gap Dislike ID- high transportation-& services- - expense Discrimination-difference-in-seeking-aid-rural-urban-poor-rich mothers-Lacks-of-money-high-cost-of-transportation-prefer-home, HCWs-Lacks-of-knowledge-skill-gap-play-game-on-life	Socio-economic variation	Mothers preference On place of delivery and birth attendants
Mothers-have-awareness-transportation-problems Cultural -influence-transportation-cost Lack-of-awareness-low-services-use-prefer-home Trust-on-TBAs-home-preference Poor-approach-of-HCWs-mothers-prefer-home Knowledgeable-skilful-manner full-privacy-prefer-HCWs	accessibility- availability	Mothers preference On place of delivery and birth attendants
Prefer-female-accustomed-home-TBAs Birds-of-the-same-feather-fly-together-Sex-similarity good-approach-of-TBAs-trust-on-TBAs due to-privacy-prefer-TBAs information-asymmetry-affects-choice	Disparity in preference	Mothers preference On place delivery and birth attendants

“... Mothers preferred the female’s attendants/ TBAs since they are trust on TTBAS, in the village due to religious & cultural issues. For example, at home TBAs attended delivery without exposing the mothers to others/ mammartee/Hagoggidee” where as in health facility laboring mothers are lying on the coach by raising or elevating her legs at Lithotomic position they don’t like to be embarrassed / መስቀልን አይረዱም .”[Panel F: Female Health Professionals]. Other similar example which supports previous idea from community was also stated as follows: “...I want female TBA since they encouraged and reassure laboring mother to attain the labour; but the male simple stood and follow what was going on as the proverb

proofs “Birds of the same feather fly together “Tan rakkoo deetee argitetu, rakkoo namaa beekaa” jette” [panel F: Female panelist from Community] Variables that indicated statistically significant in binary logistic Regression model were entered to multivariate logistic regression models to identify the independent effect of association on preference of home delivery to see single predictor and an outcome are tested for presence of an association on the following variables which had statistical associations: Respondent’s age, Education of respondents and husband, Income, birth order, respondent and husbands’ attitude towards home delivery. (Table8)

Table 8: Factors associated with preferred home as delivery place among women of reproductive age in Shashemene town, Dec-Jan, 2012(n=276)

Variables	Preferred Home delivery		COR (95% CI)	P value
	Yes	NO		
Respondent Age (years)				
15-19	12(4.3)	32(11.6)	1.35 (1.64,2.82)	0.03
20-24	55(19.9)	109(39.5)	2.24 (1.06,5.55)	0.04
25-29	30(10.9)	33(12.0)	4.00 (.59,26.96)	0.15
≥ 30	3(1.1)	2(.7)	1	
Age husband(years)				
≤20yr	6(2.2)	9(3.3)	1.15(.38,3.46)	0.81
20-24yr	36(13.2)	84(30.9)	.74(.423,1.28)	0.28
25-29yr	16(5.9)	15(5.5)	1.83(.817,4.11)	0.14
≥ 30+	39(14.3)	67(24.6)	1	
Women ‘s Education				
illiterate	54(19.6)	28(10.1)	12.54(5.86,.26.81)	0.01
Read write	18.(6.5)	25(9.1)	4.68 (1.98,11.04)	0.01
Elementary	16(5.8)	45(16.3)	2.31 (1.004,5.32)	0.05
≥Secondary	12(4.3)	78(28.3)	1	
Husband’s Education				
illiterate	24(8.7)	16(5.8)	1.58(.61, 4.06)	0.35
Read & write	26(9.4)	11(4.0)	.56(.25, 1.23)	0.15
Elementary	30(10.9)	36(13.0)	.12(.05, .26)	0.01
≥Secondary	20(7.2)	113(40.9)	1	
Family’s income/month				
<510	48(17.2)	39(14.1)	65(.34,1.22)	0.18
511-1020	31(11.2)	39(14.1)	.27(.12,.64)	0.03
1021-1530	9(3.3)	27(9.8)	.14(.07, .29)	0.01
≥1531	12(4.3)	71(25.7)	1	
Birth order				
1-2*	57(20.7)	135(48.9)	1	
3-4	38(13.8)	36(13.0)	2.22(1.2, 4.2)	0.02
≥5	5(1.8)	5(1.8)	4.35(1.9 ,9.8)	0.01
Respondents’ view ID				
Positive	13(4.7)	172(62.3)	.003(.001,.01)	0.01
Negative *	87(31.5)	4(1.8)	1	

Husband attitude of HF				
Positive		158(57.2)	.02(.01,.05)	0.01
Negative *	19(6.9)	20(7.3)	1	
ANC Use				
Yes		169(61.2)	0.01(.003, 0.02)	0.001
No	15(5.4)	7(2.5)	1	
	85(30.8)			

Logistic Regression model were used to examine the relationship between multiple independent and a dependent variables after controlling the confounders, thus, the following variables have significant association: respondents age, family income, birth order as the odd of preferring home among respondents education being illiterate were [OR 3.42,95%CI:(1.14, 10.24)] higher than that of literate and positive husbands attitude towards home delivery was protective from health facility [OR.02, 95% CI: (.01, .05)] . In contrary, positive husband attitude towards health facility was protective against home. For

instance, maternal age was a strong determinant of home delivery as preferred place of delivery. Respondents whose age group 15 -19 years were 6.3times higher than women with subsequent consecutive to give birth at home [OR 6.28, 95 % CI: (2.65, 14.95)] while age group 20-24years 2.7 times higher than others [OR2.66, 95% CI: (1.02, 6.96)]. It holds true for income of the family ≤1020 [OR1.01, 95%CI: (.39, 2.61)] versus income above 1020Eth.Birr/month [OR.18, 95%CI: (.05, .69)] which increase chance of delivery at Health facility (Table 9).

Table 9: Multivariate analysis of associated factors with preferred home delivery among women of reproductive age in Shashemene town, December-January, 2012

Variables	Preferred home delivery		AOR (95% CI)	P value
	Yes	NO		
Respondent Age (years)				
15-19_yr	12(4.3)	32(11.6)	6.28(2.649,14.89)	0.01
20-24yr	55(19.9)	109(39.5)	2.66(1.014, 6.97)	0.05
25-29yr	30(10.9)	33(12.0)	.99(.38, 2.63)	0.99
≥ 30*	3(1.1)	2(.7)	1	
Education status				
illiterate	54(19.6)	28(10.1)	3.42(1.14,10.24)	0.03
Read write	18.(6.5)	25(9.1)	.42(.07,2.78)	0.89
Elementary	16(5.8)	45(16.3)	1.67(.67,4.16)	0.19
≥Secondary*	12(4.3)	78(28.3)	1	
Family income/ month				
<510	48(17.2)	39(14.1)	1.01(.39,2.61)	0.99
511-1020	31(11.2)	39(14.1)	.28(.06,1.22)	0.09
1021-1530	9(3.3)	27(9.8)	.18(.05,.69)	0.02
≥1531 *	12(4.3)	71(25.7)	1	

ANC Use				
Yes	15(5.4)	169(61.2)	0.04(.002,0.71)	.03
No	85(30.8)	7(2.5)	1	
Birth order				
1-2*			1	
3-4	57(20.7)	135(48.9)	3.20(1.43, 4.6)	0.03
≥5	38(13.8)	36(13.0)	5.45(1.91 ,10.5)	0.01
Husband attitude of HF	5(1.8)	5(1.8)		
Positive			0.02(0.01, .06)	0.01
Negative*	19(6.9)	158(57.2)	1	
	79(28.6)	20(7.3)		

*Referent category, percentage in bracket, Adjusted for ,age of respondents ,income, parity, ANC use, literacy status, Decision making power, attitude of husband) This study showed that the result of bivarite regression analysis towards attendants preference indicated significant association of $p < 0.05$ with variables to be precise, age of respondents , education, , income, women decision making power, husband attitude of ID and Parity. (Table10)

Table10: Factors associated with preference of TTBAS as delivery attendants among women in Shashemene town, December.-January, 2012 (n=276)

characteristics	Preferred TTBAS as delivery attendants			P value
	Yes	No	COR95%CI	
Age of respondents(yr)				
15-19	10(3.6)	34(12.3)	1.62(.75,3.53)	0.22
20-24	53(19.2)	111(40.2)	3.51(1.49,8.30)	0.01
25-29	32(11.6)	31(11.2)	5.10(.75,34.89)	0.09
+ 30*	3(1.1)	2(.7)	1	
Education				
illiterate	25(9.1)	15(5.4)	2.18(.79, 5.98)	0.13
Read write	29(10.5)	8(2.9)	.50(.23,1.12)	0.09
Elementary	14(5.1)	36(13.0)	.07(.03,.17)	0.01.
≥ Secondary *	98(53.5)	119(43.1)	1	
ANC Use				
Yes	17(6.2)	167(60.5)	0.02(.01,0.03)	0.01
No	81(29.3)	11(4)	1	
Parity				
1-3*	52(18.8)	104(37.7)	1	0.03
4-6	35(12.7)	59(21.4)	2.24(1.29,3.89)	0.02
>6	11(4.0)	15(5.4)	2.37(1.66,8.49)	
Family Income/month				
<510*	49(17.8)	38(13.8)	1	0.04
511-1020	28(10.1)	42(15.2)	.52(.27,.98)	0.01
1021-1530	7(2.5)	29(10.5)	.19(.07,.47)	0.01
≥1531	14(5.1)	69(25.0)	.16(.08,.32)	
Made decision				
Just me	11(4)	146(52.9)	.03(.01,.06)	0.01
Other *	87(31.5)	32(11.6)	1	
Husband attitude of HF				
Positive	19(6.9)	158(57.2)	.03(.02,.06)	0.01
Negative*	79(28.6)	20(7.3)	1	

However: in multivariate *analysis*, the chance of choosing TTBA among respondent's age group of 20-24 is 3.6 times (OR3.582, 95% CI: 1.28, 10.04), higher than that of others. Education status being illiterate have high chance toward preference of TTBA [OR, 6.41, 95% CI:(1.42, 28.92)] ,Income more than 510[OR .07, 95% CI: (.01, .45)] self decision making [OR,.06,95% CI:(.02,.21)] and positive husband attitude [OR..02, 95% CI: (.01, .03)] toward TTBA delivery revealed statistically significant. Having less than four Parity were protective from TTBA [OR.012, 95%CI:(.001,0.42)], in other way round, women with lower family income, low education status, decision made by other persons and negative husbands attitude towards health facility were less likely to prefer health care workers than TTBA; In contrary, to those earn above 1020 ETH. Birr/ month with high literacy status, made decision by them and positive husband's attitude (table11)

Table 11: Multivariate analysis of Factors associated with preference of TTBA as delivery attendants by women in Shashemene town, December-January, 2012 (n=276)

characteristics	TTBAS		AOR 95%CI	p value
	Yes	No		
Age respondents(years)				
15-19	10(3.6)	34(12.3)	1.99(.81,4.90)	0.13
20-24	53(19.2)	111(40.2)	3.58(1.28,10.04)	0.02
25-29	32(11.6)	31(11.2)	11.06(.35, 352)	0.17
+ 30*	3(1.1)	2(.7)	1	
Education status				
illiterate	43(15.6)	68(24.6)	6.41(1.42,28.92)	0.02
Read& write	26(9.4)	67(24.3)	7.46(1.25,44.35)	0.03
Elementary	1(.4)	12(4.3)	2.05(39,10.63)	0.39
≥ Secondary*	28(10.1)	31(11.2)	1	
ANC Use				
Yes	17(6.2)	167(60.5)	.04(0.002,.66)	0.03
No	81(29.3)	11(4)	1	
Parity				
1-3*	52(18.8)	104(37.7)	1	
4-6	35(12.7)	59(21.4)	2.28(1.30,4.80)	0.02
>6	11(4.0)	15(5.4)	3.38(1.67,9.49)	0.01
Family income/month				
<510*	49(17.8)	38(13.8)	1	
511-1020	28(10.1)	42(15.2)	.63(0.18,2.21)	0.47
1021-1530	7(2.5)	29(10.5)	.07(.01,45)	0.01
≥1531.	14(5.1)	69(25.0)	.20(.06,.73)	0.02
Decision making power				
Just me	11(4)	146(52.9)	.06(.02,.21)	0.01
Others	87(31.5)	32(11.6)	1	
Husband's attitude of HF				
positive	80(29.0)	6(2.2)	.02 (.01,.03)	0.01
negative*	18(6.5)	172(62.3)	1	

*Referent category, percentage in bracket, Adjusted for ,age of respondents ,income, parity, ANC use, literacy status, Decision making power, attitude of respondent) The chance of preferring to deliver at home was 4.9 times higher than that of those who chose male attendants. In the same way, the odd of being attended by TBAs among those prefer female attendants were 41times higher than those preferring male attendants. The result of regression analysis for prediction of preference of sex was depicted in (table 12).

Table 12: Factors associated with sex preference to place of delivery and delivery attendants by women in Shashemene town, December-January, 2012 (n=276) depicted as follows:

Variables	preferred home delivery		COR95%CI	PV	AOR 95%CI	P V
	Yes	No				
Sex						
Male						
Female	1(.4)	51(18.5)	.06(.02,.23)	.01	.02(.002,.22)	.001
Both*	83(30.1)	68(24.6)	26(3.9,170)	.001	41(2.06,796)	.02
	14(5.1)	59(21.4)	1		1	
preferred TTBA's assistance during delivery						
Sex						
Male	5(1.8)	47(17)	.002(.001,.01)	.01	.01(.01,.09)	.01
Female	89(32.2)	62(22.5)	9.63(1.19,77.9)	.03	4.97(2.40,62)	.02
Both*	6(2.2)	67(24.3)	1		1	

*referent category, percentage in bracket, Adjusted for (parity, income, ANC use, attitude of husband, birth orders, age of respondents, decision making power)

6. Discussions:

This community based-cross sectional study has attempted to identify the preference of delivery place, attendants and their associated factors among women of reproductive age in Shashemene town. To date, the importance of maternal health care services in reducing maternal morbidity and mortality has got a considerable recognition though implementing and assuring effective maternity care for women in developing country is not an easy job. According to data from EDHS 2011, shown that ANC coverage in Oromia is only 31.3 Percent, delivery by SBAs is 8.1 percent while institutional delivery is 8.0 percent. This low utilization of health care services may give some indication of service coverage in the country. As a consequence, each year a number of women in the reproductive ages die of problems related with pregnancy and delivery. Even though the objective of providing safe delivery is to keep the life and health of the mother and baby with due attention to reduce the health risk of complications and infections to mothers and /or child through increasing the proportion of delivery attended by skilled birth attendants. Generally, in Shashemene, as in other zone of the region, most of reproductive age women are poor and live in disadvantageous situation; for them, while adequate care during pregnancy and delivery are essential based on their preference. However, there is still low maternity health care services utilization especially; PNC is extremely low which is consistent with that of EDHS2011. The finding of this study revealed that the coverage of mothers who preferred home as place of delivery was high comparing with the previous study conducted in Addis Ababa by Fantahun M, et al [21]. According the report of EDHS2011, generally in Ethiopia particularly, in Oromia home delivery accounts 92 percents which are assisted by non skilled birth attendants. Home delivery is still a norm in many developing countries: Thus, maternal mortality tends to be highest where this is the case. However, in this study 37.7% of delivery was attended at home, this indicates remarkable improvement to that of other areas which could be serving as good practice. This finding is not consistency with the previous studies from Butajira (88%), Adamitulu (83%), North Gondar (86.5%), report of Safe motherhood Need Assessment of Ethiopia (19996) 95.5% and EDHS 2011 92%, Ayssaita and

Dubte towns 58.7% and but higher than that of Gulale Addis Ababa 23.4 % [3],[7],[18],[20],[21],[29]. Most of these studies stated as majority of women are delivering at home which means many women have been assisted by unskilled birth attendants. This outsized disparity is elucidated by the fact that the current study is solely based on urban population. The urban women have a tendency to have better access to health facilities, education and information regarding MHC services which have an effect on the preference to institutional delivery; moreover, health promotion programs that have been preached by urban health extensions workers, may work to the advantage of the urban women and play pivotal role in awareness rising about institutional delivery. In fact yet, according to this study, there were mothers who still preferred home as place of delivery either by TTBA's or HCW's. This reflects as mothers' attitude towards institutional delivery is still unappreciable for various reasons. In contrary, mothers attending ANC had high chance of preferring institutional delivery when compared with non attendants who were less likely to seek MHC. For instance, in this study out of 37.7 percent of those women who delivered at home only 5.4percent of mothers contributed from those received ANC. In contrary, out of 62.3 percent of institutional delivery non attendants of ANC accounts only 1.1percent. This is in line with that of study conducted by Mesfin N.et al and Fantahun M.et al and Melkamu F. in North Gondar, and Addis Ababa Ayssaita and Dubte towns respectively [20], [21], [29]. The proportion of institutional delivery was increased by double as indicated by EDHS 2011 which accounts 8% for Oromia whereas according to this study institutional delivery was 62.3percent which is 7.8 times higher than that of DHS2011. While, those attending ANC at second and third trimester of pregnancy and non attendant even had an impact on delivery out come and they were less benefited from maternity care services since most problems were already happened. This implies that as there were knowledge gap on the benefit of MHC services which need preaching towards the advantages of MHC services use and disadvantages for not using MHC services. On the other hand, postnatal care by skilled birth attendants /professionals is extremely low and uncommon though it is

important for mothers and baby for detection and treatments of complications arising from delivery and threatened the survival of the women. Postnatal care issue is still remaining very low which is consistent with EDHS 2011 and Sidama, Sothorn Ethiopia studies [32]. In other words, women don't come for postnatal care check-up rather for vaccination of their child after fourth -five days though the first two days are critical time for monitoring complication arise from delivery to safe mother and/ or baby. The reasons for not attending PNC are mainly due to transportation issues, absence of problems, long waiting time, and cultural influences. This could be the possible reason for the high MMR and neonatal death despite increasing ANC and SBAs. Hence, need attention to extend service to the grass root level by skilled professionals based on their preference. Furthermore, qualitative finding from Key informants and focus group discussion participants from almost all data sources underline the issue as it was serious, they stated as there are many reasons for the mother not using maternity services especially delivery and PNC, among these: culture influence, lack of transportation, lack of awareness, high services cost, poor approach and long waiting time in health institutions. According to study conducted in Syria by Hyam B. et al more than 85% of women preferred female attendants [4]. This is almost similar with our finding where, Male attendants were preferred by only 18.6% of women to be delivered. Sex preference was a strong predictor for place of delivery and attendants which indicates significant association of those who prefer female attendants to male is 4.9 times higher than that of male to give birth at home by TTBA's, possible due to hope of male if at health facility. In contrary, those preferred male have high chance to give birth at health facility, still the chance of choosing professional is high. So, it would be important to consider opening out of female attendants just like that of HEWs since most women preferred to be delivered by female attendants. The qualitative finding also consistent with quantitative result in which both participants from Key informants and focus group discussion participants from almost all data sources underline / mentioned the situation as: the mothers preferred female's attendants/ TBAs since they are trust on in the village due to religious, cultural and privacy concern. The issue of women education have been considered in the context of preferred place of delivery and attendants. It would be reasonable to assume that education of women have positive or negative influence on their own health. The current study show that MHC and education are consistently and strongly associated with the preference of maternity health care services use which is consistent with EDHS2011, study conducted in Ethiopia and North Gondar, Addis Ababa, Thailand, Aris zone, sidama by Mesfin N. et al, Fantahun M. et al, Bachman et al and Mekonen Y. et al Regassa N. respectively [13], [20], [21], [31], [32]. The use of maternal health care services to be higher among more educated women, educated mothers are more likely to use maternity health care services than less educated women. MHC is also associated with education of women, family income, women decision making power, women with secondary education and above are more likely than those with no education to receive antenatal care and delivery services from health professionals. This finding is consistent with most maternal and child studies conducted in Ethiopia and other countries

[3], [13], [20], [21], [29]. Proportion of women who preferred home delivery declines steadily as their education and economic status increased [13], [20]. Moreover, respondents' education, husband attitude have significant association with women preference towards home and TTBA's either negatively or positively: for instance, respondent with secondary education and above were more likely to prefer health facility compared with low literacy status which is in line with study conducted in North Gondar, Addis Ababa, Thailand and Aris zone by Mesfin N. et al, Fantahun M. et al, Bachman et al and Mekonen Y. et al respectively [13], [20], [21], [31]. This could be due to importance of education to improve lives, to enhance living style on frontier and forward justice and fairness on making wise judgments among the family, eventually, let to develop self-determinations. Family income is statistically significant toward preference of TTBA's as delivery attendants. There is evidence that show the poor remain least likely to use maternity care services [3], [13], [16], [20], [21]. It is consistent with this study which indicated women from low family income were less likely to prefer health care workers than TTBA's; in contrary, to those earn above 1020 ETH. Birr/ month [OR .07, 95% CI: (.01, 45)]. Hence, economic status is to be found as an important indicator of access to health care services. Utilization of maternity care services is expected to be substantially higher among mothers who earn above 1020ETH/ months.

The proportion of women preferring TTBA's as delivery attendants is higher among women with the lowest family income status especially, those women whose income is less than 1020 ETB/ month. That means women with lowest income status are less likely to see medical professionals for delivery assistance than its counterpart. Further, qualitative data generated from key informants and focus group discussion were also in line with this finding they stated inaccessibility of health facility, poverty, cost of transportation and related services as factors for low maternity care services utilization. Even if women are interested in check ups, there are only those, who can afford or pay for such expenses usually visit health facility for maternity health care services use. Women decision making power, husband attitude and sex similarity show significant association towards preference of home as delivery place among women; oppositely, no significant association was observed on husband education towards preference of home as delivery place and TTBA's as delivery attendants. Use of maternal health care services is expected to be associated with demographic and Socio-economic factors one important variable that affects the maternity health care services use is mothers' age at the time of delivery. Result of this study revealed that the preference of delivery place and attendants are significantly influenced by age of respondents. According to this study, respondents' age 15-19 years was found to be a strong predictors of preference of home delivery having odd of 6.28 times higher to that of others, beside this the chance of choosing TTBA's as delivery attendants in the age group of 20-24 years is 3.6 times higher than that of others. That means, as is the case in MHC services, there is distinct variation in utilization of delivery services among different age groups. The recent study show that younger women are more likely than older women to prefer delivery care services assistance from TTBA's and preferring home as

place of delivery to its counterpart. In other words, low maternity care services preference is observed among mothers who are less than twenty- five years age groups. Parity, the number of children ever born, is strongly associated with health seeking behaviour. Studies show that women who have one or two children are consistently more likely to deliver with the assistance of a health professional than any other parity group [3], [13], [16], [20], [29]. Thus, high parity women are the least likely to prefer maternity care services from skilled birth attendants for various reasons. This could be due to greater confidence, collective experience and high expected services expense. This reflects as mothers' apt seeking obstetric care for their subsequent pregnancy decrease with increasing birth order. According to Mesfin N, et al and Melkamu F. explanation birth order of five or more, being grand multipara found to be strong obstetric predictors of preference to home as delivery place; Similarly, the current study, shown the chance of being attended by TTBA's was less for those women who have less than birth order of four. [OR.02, 95%CI: (.01, .04)]. [20], [29]. Negative attitude had negative influence on the preference of place of delivery and care providers, thus. Women whose husband had positive attitude had high chance of using MHC services, so it needs to work on attitude of husband's which is consistent with the finding of A/A. [11],[21],[22],[25], [27],[29]. This study illustrates disparity in using ANC and SBAs in the study area due to variation in socio demographic, obstetric, attitude of husbands, and respondent characteristic which were identified as determinant for the preference of delivery place and attendants of laboring mothers. Our findings follow other studies [16], [20], [21], [29] which demonstrate that poverty is a major factors affecting people's decision-making about health services. The main reasons for not using MHC are poor approach of HCWs, feel more comfortable being at home, to gain family care, privacy issues, transportation, lack of awareness, and services expense were cited beside other factors. Unlike other study, issues of distance were not raised. It's probably due to minimal travel distance since in the town. **Strength and limitation of the study** the study triangulating with Mixed approach is a part of its strength besides giving in sight for researcher who is in need of such activities as well selection bias was minimized as community based study with probability sampling approach using similar sex as data collectors. Hence, the study is one year retrospective cross-sectional, it's not exempted from limitation of recall bias and lack of ability in reflection of temporal relationships and the study did not encompasses the rural population which might affect its generalization ability; so, need watchfulness. In this study, particular variables that determine MHC towards preference of place of delivery, and attendants have been investigated, and their importance was determined by comparing their choice at a specific point in time. The finding should be interpreted with caution, since dependants and in dependants factors were assessed at point in time.

7. Conclusion

This study revealed that most women preferred female health professionals to provide maternity health care services. However, still substantial number of women

preferred home delivery since they feel comfortable being at home; to gain family care, transportation problems, lack of privacy, difference in socio –demographic, cultural influence towards place of delivery and care providers .So, due attention should be given to the preference of women to ensure equal access to maternity health care services since they are not using maternity care services equally. Thus, based on the finding of this study the following points are suggested to Ministry of Health, Education, Finance, police makers, Oromia regional health bureau and concerned bodies /partners' who are working in the region on development sectors. As a recommendation, there should be a need to understand and expand services availability and accessibility at facility level; especially, at Primary Health Care Unity and at grass root level. That means, at home based level since no women come back for follow up from home after delivery. Initiating family care at facility level and availing functional transportation services in the community are recommended to improve health status of women. There should also be, equipping and enabling female HCWs, HEWs and TTBA's to ensure ANC, delivery and postnatal service to have immense role on provision of MHC. Beside this, due attention should be given to escalate female education, women empowerment, socio -cultural context and preferences of women to meet MDGs; ultimately, to improve women health status in the community, to make right and informed choices.

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