

Institutional Delivery Service Utilization and Associated Factors Among Mothers Who Gave Birth in the Last One Year in Ilu Ababor Zone, South West Ethiopia

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Abstract

Background: One of the top worldwide priorities is lowering maternal mortality, which is especially important in developing nations like Ethiopia. The use of institutional delivery services by mothers receiving competent birth attendant care is one of the primary ways to lower the maternal death ratio and enhance maternal health; nevertheless, the usage of this service is notably lower in Ethiopia.

Objective: To assess institutional delivery service utilization and associated factors among mothers who gave birth in the last one year prior to the study in the selected town, Ilu Abba Bora zone, south-west Ethiopia.

Method: A cross-sectional study was employed. Epi-Info version 7.2 and SPSS version 23 statistical software were used for data entry and analysis. Variables that were significantly associated at the 5% significance level (p -value ≤ 0.25) with the outcome variable were transferred to multivariate logistic regression for further analysis. An adjusted odds ratio with a 95% CI was used to examine the degree of association between independent and dependent variables. The level of significance at $\alpha \leq 0.05$ and p -value less than 0.05 was taken as the significance level for associations between independent variables and institutional delivery.

Result: Of the 304 study participants, 295 responded, for a 97% response rate. From the total study units, 161 (54.6%) were delivered at a health facility. Multivariate logistic regression revealed that women aged 30–34 years were twice as likely to utilize institutional delivery than those in other age groups (AOR [CI] = 2.56 (1.111, 5.858)). Women who had more than four antenatal care visits in a health facility were six times more likely to give birth at a health institution than their counterparts (AOR [CI] = 6 [0.002, 0.019]). Women whose antenatal care follow-up was at the hospital were twice as likely to deliver at a health institution than those women who didn't visit any health institution during perinatal care (AOR [CI] = 2.31 [1.071, 4.98]).

Conclusion: Generally, this study revealed that institutional delivery service utilization was low when compared with some findings from other literature, and factors associated with institutional delivery service utilization were age from 30-34 years, history of antenatal care with more than four visits, and antenatal follow-up at the hospital.

Keywords: institutional delivery service; preconception care

Introduction

Globally, at least 160 million women become pregnant annually; of these, about two-thirds of births take place in health facilities. On the other hand, about 15% of them deliver at home and develop serious complications, which results in approximately 289,000 maternal deaths [3, 4, 5]. In developed countries, 97% of pregnant women receive antenatal care (ANC), and almost all (99%) births take place in health facilities, whereas in developing countries, only 52% of pregnant women had four or more ANC visits during pregnancy [4]. Each year, over 30 million women in the developing world suffer from serious obstetric complications, which include uterine prolapse, pelvic inflammatory disease, fistula,

incontinence, infertility, and pain during sexual intercourse. Most of these complications result from the absence of care during delivery or the first few critical hours after delivery. Furthermore, these nations account for 99% (286,000) of the global maternal deaths, most of which result from home delivery. Hemorrhage and hypertensive disorders are the leading causes of maternal mortality in these countries, and they need advanced management in health institutions [4, 5]. In the last two decades, there has been a considerable increase in institutional delivery rates in South Asia. In Bangladesh, institutional delivery rates increased from 4 to 29% during the years between 1993 and 2011. Similarly, in India, institutional delivery rates increased from 26 to

79% in the years between 1992 and 2011, and in Nepal, from 8 to 35% in the years between 1996 and 2011. There are, however, substantial urban-rural disparities in the utilization of institutional delivery services. In Bangladesh, of the total number of women who utilized institutional delivery services in 2011, 49% were from urban areas and 23% were from rural areas. Comparative proportions were 71 versus 31% in India and 52 versus 15% in Nepal [3].

In most sub-Saharan African countries, the proportion of institutional births in urban areas is twice that in rural areas (76% versus 40%). Furthermore, this region has the lowest coverage (53% of skilled delivery service utilization). In Uganda, the proportion of mothers delivering at health facilities has been persistently low, and the rates are even lower in rural areas [1, 3, 4]. Most of the maternal deaths are preventable if deliveries are overseen by skilled personnel. To increase institutional delivery service, different organizations have developed strategic plans. For instance, to reduce maternal mortality, many scholars around the world participated in an international conference on population and development and planned to have at least 90% of deliveries attended by skilled health care providers by 2015. However, in developing regions, 40 million births were not attended by skilled health care personnel, of which over 32 million occurred in rural areas [4]. In Ethiopia, 34% of pregnant women received antenatal care from a skilled provider in 2014. However, only 10% of births were delivered by a skilled provider [6]. Giving birth in a medical institution under the care and supervision of trained health-care providers significantly reduces the risk of maternal mortality and improves maternal health. Despite the fact that some studies have been done to address this area of concern in order to improve institutional delivery service utilization in Ethiopia, there is still a clear research gap to address these particular problems in the Ilubabor Zone. This study aimed at to assess institutional delivery service utilization and associated factors among mothers who gave birth in the last 12 months in the Ilu Abba Bora zone, south-west Ethiopia.

Methods and Materials

Study design and area

A cross sectional design was employed to undertake this study in the Ilu Abba Bora Zone in south-western Ethiopia. The capital city of this zone is Metu, which

is located 600 kilometers southwest of Addis Ababa, which is the capital city of Ethiopia.

Population

All women who gave birth in the Ilu Abba Bora zone, south-west Ethiopia, were considered the source population, whereas the study population was all women who gave birth in the last 12 months in the selected Woreda.

Eligibility criteria

Women who gave birth in the last 12 months, regardless of the outcome, and lived in the study area for at least six months were included, and mothers who were severely ill and unable to communicate were excluded.

Sample size and sampling techniques

The sample size was determined by using a single population proportion formula with assumptions of institutional delivery service utilization of 10% that was taken from the 2011 Ethiopian demographic and health survey report. The level of significance was 5% ($\alpha = 0.05$), $Z_{\alpha/2} = 1.96$, the absolute precision or margin of error was 5% ($d = 0.05$), and the design effect was 2. Finally, after adding 10% of the non-response rate, the total sample size was 304. From 13 woreda in Ilu Abba Bora Zone, eight woreda were selected using a simple random sampling technique. Similarly, from those selected, eight kebeles were selected using a simple random sampling technique. Then the sample size was proportionally allocated for each selected kebeles, and study participants were selected by a simple random sampling technique from each kebeles. The numbers of women who had given birth and their addresses were obtained from the selected health centers.

Variables of the Study

Dependent or outcome variable

Institutional delivery service utilization

Independent variables

Socio-cultural variables: address, age of the mothers, marital status, educational status of the mothers, religion, and ethnicity.

Obstetric Characteristics: Age at first marriage, parity, pregnancy outcome, visiting health facility, frequency of ANC visits, place of ANC visits, last pregnancy plans, Information about pregnancy and delivery complications, information on the place of delivery, and types of health facilities for delivery.

Operational definitions

Skilled birth attendant: people with midwifery skills (doctors, midwives, and nurses) who have been trained in the skills necessary to manage normal delivery, diagnose, and refer obstetric complications. Institutional delivery is a delivery that takes place in any medical facility owned by skilled delivery assistance.

Data collection tools, procedures and quality control

Data was collected with pre-tested structured questionnaires that were adapted from a study conducted in Mizan Aman town [1]. The pretest was conducted at Metu Town 01, Kebele. The questionnaire was translated from English into Afan Oromo and back to English by language experts to check for consistency. The questionnaire consists of socio-demographic characteristics of the respondents, obstetric factors, information about last delivery, and knowledge on pregnancy and delivery. Health extension workers were used to collect data. One midwife was assigned to supervise the data collection process. Both the data collectors and supervisors were given three days of intensive training before the actual work about the aim of the study, procedures and data collection techniques, the art of interviewing, ways of collecting the data, and clarification.

Data Analysis

The collected data was cleaned for inconsistencies or missing values, coded, and analyzed using Epi-Info version 7.2 for data entry and SPSS version 23 statistical software for data analysis. Tables, proportion, cross-tabulation, odds-ratio, means, and

frequency were used to describe the data. The model diagnostics for regression were carried out to check the assumptions. Bi-variable logistic regression analysis was used to assess the association between factors (independent) variables and outcome (dependent) variables. Furthermore, variables that were significantly associated with a 5% significant level at a p-value ≤ 0.25 with the outcome variable were transferred to multivariable logistic regression for further analysis. Furthermore, an adjusted odds ratio with a 95% CI was used to examine the degree of association between independent and dependent (outcome) variables. The level of significance at $\alpha \leq 0.05$ and p-value less than 0.05 was taken as the significance level for associations between independent variables and institutional delivery.

Result

Socio-demographic characteristics

From the 304 study participants, 295 responded, for a 97% response rate. From the total number of participants in the study, 114 (38.6%) of the respondents were 25–29 years old, 100 (33.9%) were 20–24 years old, 67 (22.7%) were 30–34 years old, and 14 (4.7%) were within 15–19 years old. Two hundred twenty-eight (77.3%) participants were married, forty-one (13.9%) were divorced, and twenty-six were widowed (8.8%). Regarding the educational status of respondents, 83 (38%) attended primary education, 25 (8.4%) were unable to read and write, and 53 (53.3%) attended secondary school and above (Tab 1).

Table 1: Sociodemographic characteristics of respondents who gave birth in the last 12 months, 2018 (n = 295)

Variable	Frequency(n)	Percent (%)
Age		
15-19	14	4.7
20-24	100	33.9
25-29	114	22.7
30-34	67	38.6
Marital status		
Married	228	77.3
Divorced	41	13.9
Widowed	26	8.8
Religion		
Orthodox	89	30.2
Muslim	136	46.1
Protestant	67	22.7
Others	3	1
Ethnicity		
Oromo	192	65.1

Amhara	56	19
Gurage	46	15.6
Others	1	.3
Educational Status		
Unable to read and write	68	23.04
Primary education (1-8)	114	38.65
Secondary education and above	113	38.31

Obstetric Characteristics of Respondents

Of the total study participants, 141 (47.8%) were married at 15–19 years, 117 (39.7%) at 20–24 years, 35 (11.9%) at 25–29 years and 2 (0.7%) were married at 30–34 years old. One hundred five (54%) study respondents delivered two live births, seventy-nine (79%) delivered one live birth, sixty-one (32%) respondents delivered three live births, twenty-eight (28%) delivered four, and twelve (6%) participants delivered four live births. Two hundred seventy-five

(93.2%) had no history of abortion, nineteen (6.4%) had aborted once, and one (0.3%) had aborted twice. Two hundred eighty-two (95.6%) had no history of stillbirth, and thirteen (4.4%) had given stillbirth once. From the total study units, one hundred ninety-one (64.7%) had visited a health facility during their last pregnancy. One hundred seven (66.5%) participants were delivered in a health center, and fifty-one (31.7%) participants were given birth in a hospital (Table 2).

Table 2: Obstetric characteristics of respondents who gave birth in the last 12 months, 2018 (n = 295)

Variables	Frequency(n)	Percent (%)
Age at first marriage		
15-19	141	47.8
20-24	117	39.7
25-29	35	11.9
30-34	2	0.7
Numbers of births (parity)		
1	79	26.8
2	105	35.6
3	61	20.7
4	28	9.5
5	12	4.1
6	5	1.7
7	2	.7
8	2	.7
Number of abortions before the last birth		
0	275	93.2
1	19	.64
2	1	.3
The number of stillbirths before the last birth		
0	282	95.6
1	13	4.4
Visit to a health facility during the last pregnancy		
Yes	191	64.7
No	104	35.3
Number of ANC visits		
1	39	20.4
2	42	22
3	65	34
4	45	23.6
Place ANC follow-up		
Health Center	95	49.7

Hospital	71	37.2
Others	25	13.1

Information about pregnancy and delivery Complications obtained during the ANC follow-up		
Yes	160	54.2
No	31	10.5
Information about where to deliver was obtained during the ANC follow-up.		
Yes	156	83.8
No	35	16.2
Last pregnancy planned		
Yes	260	88.1
No	35	11.9
Place delivered last birth		
Home	134	45.4
Health facility	161	54.6
Types of health facilities		
Health center	107	66.5
Hospital	51	31.7
Both	3	1.8

Factors Associated with Institutional Delivery Service Utilization

In this study, women's educational status (secondary school (COR[CI]=3.14[0.18, 0.55]), women's age (30-34 years (COR[CI]= 3.25[1.73, 6.14]), women's age at marriage (25-29 years (COR[CI]=2.337[0.143,.792]), visit health facility for ANC (COR[CI]= 3.5[0.005, 0.032]), place of ANC visits (hospital (COR[CI]= 3.49[1.471, 8.289]), both hospital and health center (COR[CI]= 2.38[0.722, 7.905]) and frequency of ANC visits (more than four (COR[CI]=

1.33[0.162,.689]) were significantly associated at p-value of 0.25 with confidence interval of 95% in bivariable logistic regression and were transported to multivariable logistic regression. Finally, multivariable logistic regression revealed that women's age between 30-34 years (AOR [CI] = 2.55 [1.111, 5.858]), having above four ANC visits in a health facility (AOR [CI] = 6 [0.002, 0.019]), and place of visit at a hospital (AOR [CI] = 2.31 [1.071, 4.98]) were significantly associated with institutional delivery at a p value of 0.05 and a 95% confidence interval (Table 3).

Table 3: Bivariate and multivariate analysis of factors associated with institutional delivery service utilization, 2018 (n = 295)

Variable	Delivered to a health facility					
	Yes	No	COR 95% CI	P-value	AOR: 95% CI	p-value
Age						
15-19	7(4.3%)	7(5.2%)	1.59(.522, 4.844)	.414		
20-24	62(38.5%)	38(28.4%)	1.97(.561, 1.694)	.929		
30 to 34	22(13.7%)	45(33.6%)	3.25(1.726,6.135)*	.000	2.55(1.111,5.858)*	.027
25-29	70(43.5%)	44(32.8%)	1			
Educational Status						
Unable to read/write	25(8.47%)	43(14.57%)	1.49(.808, 2.765)	.201		
Secondary and above	83(28.14%)	30(10.17%)	3.14(0.180, 0.548)*	.000		
Primary education	53(17.97%)	61(20.68%)	1			
Age at marriage						
15-19	75(46.6%)	66(49.3%)	1			
20-24	57(35.4%)	60(44.8%)	1.2(0.732, 1.954)	.474		
25-29	27(16.8%)	8(6%)	2.337(0.143, .792)*	.013		
Parity						
Above five	13(8.1%)	13(9.7%)	1.223(0.547, 2.737)	.624		

Below four	148(91.9%)	121(90.3%)	1			
Visited a health facility for ANC						
Yes	155(96.3%)	34(25.4%)	3.5(0.005, 0.032)*	.000	6(0.002, 0.019)*	.000
No	6(3.7%)	100(74.6%)				
Numbers of ANC visits						
More than four	34(21.1%)	127(78.9%)	1.33(0.162, .689)*	.003		
Less than four	11(8.2 %)	123(91.8%)				
Place of ANC visits						
Health center	86(53.4%)	9(6.7%)				
Hospital	52(32.3%)	19(14.2%)	3.49(1.471, 8.289)	.005*	2.309(1.071,4.980)*	.033
Both HC and Hospital	20(12.7%)	5(15.2%)	2.39(0.722, 7.905)	.154*		

Discussion

The result from this study shows that institutional delivery service utilization was 54.6%. This finding is slightly lower than the findings from research conducted in Kometa Sub-Locality, Mizan-Aman Town, which revealed that the percentage of institutional delivery was 66.50%. This variation might be due to differences in population homogeneity. Similarly, this finding is significantly lower than the finding from the study done in Jimma, which was 86.4%. This might be as a result of the intervention provided regarding awareness of institutional delivery service utilization by academic institutions and local government in Jimma Zone. Furthermore, the result from this research was lower than the result from research conducted in India, which was 63%. This variation may be associated with the development level and educational status of each country. On the other hand, this result is higher than the findings from Nepal and Tanzania, which were 41.2% and 46.7%, respectively. This might be due to the commitment and strategic plan of the Ethiopian government toward the reduction of maternal mortality [8, 9, 10, 12, 14, 33, 34]. In this study, those with an age group between 30-34 years were twice as likely to give birth in a facility than those with other age groups. This finding is consistent with the findings of a study conducted in the north Gondar zone, where institutional delivery was associated with women's ages 30-34. Furthermore, this finding is also supported by a study conducted in the south Tigray Zone [17, 19].

Additionally, those women who had more than four ANC visits were six times more likely to give birth in a health facility than those who had not had an ANC visit. This finding is in line with the study findings from the north Gondar zone and the south Tigray zone. This might be due to similarities in maternal health provision policies since both are managed by

the same ministry of health, which provides similar health packages. Similarly, this result is also supported by study findings from India and Mali. This might be due to a similar maternity model applied in developing countries [19, 23, 24]. Finally, mothers who had an ANC visit at the hospital were twice as likely to give birth in a health facility. This may be due to variations in staff knowledge at each facility.

Conclusion

Generally, this study revealed that institutional delivery service utilization was low when compared with some findings from other literature and factors associated with institutional delivery, age from 30-34 years, history of antenatal care more than four visits, and hospital visit for antenatal care follow-up was significantly associated with institutional delivery service utilization.

Recommendation

The local government of the Ilubabor zone, Mattu University, and other stakeholders should actively participate in educating mothers to create awareness about ANC utilization. Additionally, this responsible organization should encourage and facilitate ANC follow-up to be provided in hospitals, and attention should be given to mothers aged less than 30 and above 35 years.

Limitation

The sample size used in this study was small, which may threaten the internal validity of this study and may be considered a limitation.

Abbreviations and Acronyms

ANC: Antenatal Care

EDHS: Ethiopian Demographic and Health Survey;
FDG: Focus Group Discussion
FMOH: Federal Ministry of Health;
HEWs: Health Extension Workers
MDG: Millennium Development Goals
MMR: Maternal Mortality Ratios
PPH: Post-Partum Hemorrhage
SBAs: Skill Birth Attendants
SSA: Sub-Saharan Africa
TBAs: Traditional Birth Attendants
TTBAs: Trained Traditional Birth Attendants
WHO: World Health Organization

Declarations

Ethical Approval

The study was conducted following the 2013 revised Declaration of Helsinki, and ethical clearance was obtained from the ethical review committee of Mattu University. A letter of permission was obtained from the midwifery department. Participants were informed about the purpose, risks, and benefits of the study and were invited to participate. Confidentiality was kept to the utmost, all related queries were responded to, and they provided written informed consent for participation.

Availability of data and materials

The data sets used and examined in this study are obtainable from the corresponding author upon sound request.

Competing interests

The authors state that they have no competing interests.

Acknowledgments

The authors are grateful to Mattu University for providing ethical permission to undertake this study.

References

1. Masino T, Tafesse L, and Andualem H. Prevalence of Institutional Delivery among Mothers in Kometa Sub-Locality, Mizan-Aman Town, Southwest Ethiopia.
2. Amy J., Kesterton K., John C., Andy Sloggett, and Carine Ronsmans Institutional delivery in rural India: the relative importance of accessibility and economic status.
3. Sushmita D, Glyn A K, et al. Institutional delivery in the public and private sectors in South Asia: a comparative analysis of prospective data from four demographic surveillance sites.
4. Alemi K., Kalkidan H., Aderajew N., et al. (2012). Factors associated with institutional delivery service utilization in Ethiopia.
5. Teklemariam G, Biresaw W, Mekdes K, et al. (2015). Home Delivery and Associated Factors among Reproductive Age Women in Shashemene Town, 2017 Key Indicators for Asia and the Pacific.
6. Kamal, S. M. Mustafa. (2009). Factors affecting the utilization of maternity care services among married adolescents in Bangladesh. *Asian Population Studies*, 5(2):153-170.
7. Thind A, et al. (2008). Where to deliver? Analysis of choice of delivery location from a national survey in India. *BMC Public Health*, 8(29).
8. Tula Dhār H, et al. (2009). Complications of Home Delivery: Our Experience at Nepal Medical College Teaching Hospital. *Nep Med Coll J*, 11(3).
9. Babalola S, Fatusi A. (2009). Determinants of use of maternal health services in Nigeria: looking beyond individual and household factors. *BMC Pregnancy and Childbirth*, 9 (43).
10. H.E. Onah et al. (2006). Factors associated with the use of maternity services in Enugu, southeastern Nigeria. *Social Science & Medicine*, 63:1870-1878.
11. Mpembeni et al. (2007). use patterns of maternal health services and determinants of skilled care during delivery in southern Tanzania: implications for the achievement of MDG-5 targets. *BMC Pregnancy and Childbirth*, 7(29).
12. Van E., et al. (2006). Use of antenatal services and delivery care among women in rural Western Kenya: a community-based survey.
13. Nigussie M., Haile Mariam D., and Mitike G. (2004), Assessment of safe delivery service utilization among women of childbearing age in the north Gondar Zone, north-west Ethiopia. *Ethiop.J. Health Dev*, 18(3):145-152.
14. Gabrysch S., Campbell MR. (2009). Still too far to walk: a literature review of the determinants of delivery service use. *BMC Pregn & Childbir*, 9(34).
15. Mayhew et al. (2008). Determinants of Skilled Birth Attendant Utilization in Afghanistan: A Cross-Sectional Study. *American Journal of Public Health*, 98(10).
16. Mitra S. (2010). A Study to Identify Barriers to Institutional Delivery in Rural West Bengal. *Journal of Community Medicine*, 6(1).
17. J.-C. Fotso, A. C. Ezeh, and H. Essendi. (2009). Maternal health in resource-poor urban settings:

- how does women's autonomy influence the utilization of obstetric care services? *Reproductive Health J*, 6(9).
18. Indris SH, Gwarzo, and Sheshu AU. (2006). Determinants of place of delivery among semi-urban women in Northern Nigeria. *Annals of African Medicine*, 5(2):68-72.
 19. Mekonnen Y, Mekonnen A. (2002). Utilization of maternal health care services in Ethiopia. *DHS Further Analysis Reports*.
 20. Amponsah EK. (2009). Expectant Mothers and the Demand for Institutional Delivery: Do Household Income and Access to Health Information Matter? Some Insight from Ghana. *European Journal of Social Sciences*, 8(3):469-482.
 21. J. Stekelenburg et al. (2004). Waiting too long: low use of maternal health services in Kalabo, Zambia. *Tropical Medi & Int Health*, 9(3):390-398.
 22. Gage AJ. (2007). Barriers to the utilization of maternal health care in rural Mali. *Soc Sci Med*, 65(8):1666-1682.
 23. Sugathan K.S., Mishra V., and Retherford RD. Promoting Institutional Deliveries in Rural India: The Role of Antenatal-Care Services. National Family Health Survey Subject Reports Number 20: December 2001. *International Institute for Population Sciences*.
 24. Bell J., Curtis SL., and Alayón S. Trends in delivery care in six countries. *DHS Analytical Studies*.
 25. Stephenson R, et al. (2006). Contextual influences on the use of health facilities for childbirth in Africa. *Am J Pub Health*, 96(1):84-93.
 26. Yanagisawa S., Oum S., and Wakai S. (2006). Determinants of skilled birth attendance in rural Cambodia. *Trop Med Int Health*, 11(2):238-251.
 27. Gage AJ, Guirlene Calixte M. (2006). Effects of the physical accessibility of maternal health services on their use in rural Haiti. *Popul Stud (Camb)*, 60(3):271-288.
 28. Wagle RR, Sabroe S, and Nielsen BB. (2004). Socioeconomic and physical distance to the maternity hospital as predictors for place of delivery: an observation study from Nepal. *BMC Pregnancy and Childbirth*, 4(8).
 29. S. Hounton et al. (2008). Accessibility and utilization of delivery care in rural Burkina Faso. *Tropical Medicine and Inter Health*, 13(1):44-52.
 30. Mekonnen Y, Mekonnen A. (2010). Factors Influencing the Use of Maternal Healthcare Services in Ethiopia.
 31. (2002). Munesa woreda annual health report. E.C.
 32. Yebelay B, Dawit Y, and Lelteyork Y. (2020). Determinants of institutional delivery service utilization in Ethiopia: a population-based cross-sectional study.
 33. Metsheet Y, Selmon M, Fantahun. Institutional delivery service utilization and its determinant factor among women who gave birth in the past months in Southwest Ethiopia.

Annexes

Annex I. Information Sheet

Introduction

I am working as a data collector for the study being conducted in the Ilu Abba Bora zone for our kebele. I kindly request that you offer me your attention to explain the study and be selected as the study participant. The title of this study is the study on institutional delivery utilization and associated factors in the Ilu Abba Bora Zone.

Benefit: There would not be any direct payment for participating in this study. But findings from this research may be important for planners and the community to identify problems and reduce or prevent maternal mortality at large.

Confidentiality: The information that you provide will be confidential. There is no information that will identify you. The findings of the study will be general for the study population and will not reflect anything particular about individual persons. The questionnaire will be coded to exclude showing names; no references will be made in oral or written reports that could link participants to research.

Rights: Participation in this study is fully voluntary. You have the right to declare to participate in this study or not to participate from the beginning, or to stop at any time after starting participation. However, we hope you will answer the questions, which will benefit the services you provide the nation.

Table 4: Sociodemographic characteristics of respondents

Sr. No	Questions	Choice Answers	Skip to Qn No.
101	Age	in years-----	
102	Marital status	1. Married 2. Divorced 3. Widowed	
103	Religion	1. Orthodox 2. Muslim 3 Protestant 4. others, specify -----	
104	Ethnicity	1. Oromo 2. Amhara 3.Gurage 4. Others specify -----	
105	Educational status of the mother	1. unable to read and write 2.primary education (1-8) 3. Secondary education and above	

Table 5: Obstetric factors

201	What was your age at your first marriage?	In years-----	
202	How many births have you ever had?	In numbers -----	
203	Number of abortions ever had before the last birth	In numbers -----	
204	Number of stillbirths ever had before the last birth	In numbers -----	
205	Did you have any visits to health facilities during your last pregnancy?	1. Yes; 2. No.	Skip
206	If your visit was for ANC, the number of visits	In number -----	
207	Where did you attend the ANC follow-up?	1. Health Center 2. Hospital 3. Other, specify -----	
208	What were your reasons to visit a health facility during your last pregnancy?	1. For ANC care 2. For delivery 3. For pregnancy-related problems 4. For problems not related to pregnancy 5. Others, specify -----	
209	During the ANC follow-up, did you get any information about pregnancy and delivery complications?	1. Yes 2. No	
210	During the ANC follow-up, did you get any information about where to deliver?	1. Yes 2. No	
211	Was your last pregnancy planned?	1. Yes 2. No	
212	Where did you deliver your last child?	1. Home 2. Health facility	
213	If you gave birth in a health facility, which health facility?	1. Health center 2. Hospital 3. Private clinic	

Cite this article: Desale A, Jiregna B, Dibaba B. (2024). Institutional Delivery Service Utilization and Associated Factors Among Mothers Who Gave Birth in the Last one Year in Ilu Ababor Zone, South West Ethiopia. Journal of Women Health Care and Gynecology, BioRes Scientia Publishers. 3(4):1-9. DOI: 10.59657/2993-0871.brs.24.040

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Article History: Received: February 29, 2024 | Accepted: March 20, 2024 | Published: March 26, 2024