#### UNDERSTANDING ACCESS TO MATERNAL HEALTH SERVICES IN FUNTUA, NIGERIA

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#### Abstract

The study aimed at analysing the extent to which women access maternal health services in Funtua, Nigeria. Most births take place outside health facilities and without the presence of skilled attendants. Katsina State records a high level of maternal mortality with an estimated maternal mortality rate of over 1,000 maternal deaths per 100,000 live births, because a high percentage of births take place outside health facilities. This cross-sectional study sampled 384 mothers of under-fives through a quantitative method. The study found that 55.2% of the respondents found it challenging to access maternal health services, and 38% pointed out long waiting-time as the major problem they faced during their antenatal care visits. The tested hypotheses indicated a relationship between maternal education, independent income and antenatal care attendance. The study recommends women empowerment and improved political will to expand the coverage of maternal health services. Outreach programs to provide vital information on the importance of facility based deliveries should be reinforced.

#### Keywords: Antenatal care, healthcare, independent income, maternal mortality, pregnant

#### Introduction

According to the World Health Organization (2014), a competent health provider attended approximately half of all deliveries in Africa. These figures are far below the global target of ensuring that a skilled health provider attends at least 90% of births by 2015 (UNFPA, 2011; Shehu, Ibrahim, Oche, & Nwobodo, 2016). Most pregnant women in the developing world receive skimpy or no prenatal care and deliver without help from skilled health care providers. Addisse (2003) argued that more than 7 million new-born deaths are considered to result from maternal health problems and their mismanagement.

In Africa, the issue of maternal health is tied to the degree of antenatal care attendance (Amzat, 2015). The major target of antenatal care is to ensure optimum health outcomes for the mother and her baby. Antenatal care provided by a skilled health worker enables early sensing of complications and prompt treatment (e.g., detection and treatment of sexually transmitted infections), prevention of diseases through immunization and micronutrient supplementation. Shehu et al. (2016) discovered that childbirth is a risk-producing event, which requires timely and adequate medical intervention from a trained birth attendant. The availability of a trained attendant with midwifery skills at every birth, plus access to emergency obstetric care, is the option to extenuate the risk. It also requires birth preparedness, complication readiness, health promotion, and disease prevention through health messages and counselling for pregnant women. However, in Sub-Saharan Africa, most births take place away from health facilities and without the presence of a skilled health provider, and this translates to the high incidence of maternal mortality rate in the region (Shehu et al., 2016). In Katsina State, the majority of women (66%) did not visit any health facility for antenatal care, and this is a grave issue in terms of controlling and curbing pregnancy-related complications and maternal mortality rate (NPC & ICF International, 2014).

A significant gain of antenatal care is its connection with delivery in a health facility and assisted by a skilled birth attendant. In a multi-country study by Adjiwanou and LeGrand (2013), they found that women who had at least four antenatal care visits were estimated to be 11% more likely to be assisted by a skilled

attendant during delivery, and this upshot depended predominately on the content and number of antenatal care visits. Yar'zever and Said (2013) averred that despite the benefits of antenatal care visits, the majority of pregnant women in Kano do not seek antenatal care. This is often due to low socioeconomic status and the influence of cultural and religious misconceptions.

The situation in Katsina is similar to neighbouring states. For instance, only 4.7% of women delivered in health facilities in Sokoto State, and only 4.3% had skilled attendants at delivery (Shehu et al., 2016). However, this study found that this is not the case in Funtua. Because 60% of deliveries in Funtua are, facility based. NPC and ICF International (2014) reported that 11.5% of women of the Northwest region of Nigeria delivered in a health facility, while 19.5 and 45.7% of women of the Northeast and Northcentral regions, respectively, delivered in a health facility. However, this was in sharp contrast to the 78.1% and 75% of women in the southeast and southwest region (respectively) who delivered at a health facility. In another baseline survey by UNFPA, the symmetry of women who gave birth in a health facility was found to be high in Anambra (87.9%), Abia (82.8%), Osun (76.4%) and Ogun (74.2%) states, while in Sokoto (5.7%), Kebbi (8.2%) and Katsina (7.5%) States, the proportions were exceedingly low and alarming (UNFPA, 2011). There was a tenuous apparent increase in facility-based deliveries (from 33% in 2003 to 36% in 2013) but still, access to maternal health services is still low (Mallick, Tukur, and Kerry, 2016). Hence, from the foregoing, this study examines the extent to which women are accessing maternal health services in Funtua Local Government Area of Katsina State, Nigeria.

From the visited literature, it was observed that a study of this nature that tends to understands access to maternal healthcare services in the study area is absent. It is the intention of this study to fill the gap. The objective of this study is to analyse the extent to which women in Funtua Local Government Area are accessing maternal health services. The formulated hypotheses that research intend to test are:

- H<sub>0</sub>: There is no relationship between maternal education and antenatal care attendance.
   H<sub>1</sub>: There is a relationship between maternal education and antenatal care attendance.
- H<sub>0</sub>: There is no relationship between maternal independent income and antenatal care attendance.
   H<sub>1</sub>: There is a relationship between maternal independent income and antenatal care attendance.

## Methods

## **Study Area and Population**

This study was conducted in Funtua Local Government Area of Katsina state in Northern Nigeria. Funtua was created in 1976, located in the southern part of Katsina state with an estimated heterogeneous population of 292,706, in which 139,575 were women (NPC, 2016). Funtua has 11 political wards, and predominant tribes are Hausa, Fulani, and Yoruba. Majorities are Muslims and they mostly engage in farming, animal rearing, public service and trading activities. Katsina state literacy rate is 27.5%, male 34.5%, female 20.1% (National Bureau of Statistics, 2010; Katsina State Government, 2012).

The Local Government Area has 56 public health facilities, out of which 41 offers and provides antenatal care services, and seven privately owned health facilities, including one General hospital, fairly distributed within the 11 political wards (PHC, 2016). There are seven nurses/midwives, 110 extension health workers and 66 trained birth attendants working in the Primary Healthcare Department of the Local Government Area (PHC, 2016).

The total population of females in the study area as projected by the National Population Commission was 139,575 (NPC, 2016). Within each purposively selected ward, the target population of this study was the mothers of under-fives, which comprises of 25% of the total population of women in the area i.e., 34,895. Moreover, the specific age for the study population was 15 - 49 years (reproductive age category), and the respondents were residents of the selected wards. The respondents were either bearing pregnancy or have had pregnancy, and/are mothers of under-five.

## Sample size and Sampling Procedure

The sample size was calculated using an online sample size calculator: Raosoft Sample Size Calculator 2004. The sample size was calculated at 5% margin of error, 95% confidence level, and 50% response distribution. The calculator guided the research to select 384 respondents (as the sample size).

The areas covered by this research were eight purposively selected wards of the Local Government Area, including Sabon Gari ward, Unguwar Musa ward, Makera ward, Maska ward, Dandutse ward, Goya ward, Dukke ward and Mai Gamji Ward. The justification of selecting the eight mentioned wards out of the eleven wards of the Local Government Area is that; the Sabon Gari, Unguwar Musa, Makera and Dandutse wards are within the Funtua metropolis and are mostly inhabited by different ethnic groups with different religious beliefs. While Maska, Goya, Dukke and Mai Gamji wards are located in the rural areas. Unlike the ones in the metropolis, the population in the rural wards is predominantly Hausa speaking Muslims. A systematic sampling technique was used to select the respondents using households with a random start, followed by every third house in the study area. Out of the 384 administered questionnaires for this study, 16 were not returned; therefore, the response rate was 95.83%.

### **Data Collection and Analysis**

The Questionnaire for the study was developed in English language and administered in both English and Hausa (the local language of the study area) languages in the form of interviews. The questionnaire consisted of both closed and open-ended questions on the following: socio-demographic information and the extent to which women are accessing maternal health services. Two research assistants who were acquainted with the study setting and smooth-spoken in local and English languages were recruited and experienced a day training before the fieldwork. The training was about the instrument of data collection and its administration, eligibility criteria and ethical principles.

A Pilot study was conducted in Dutsen-reme area of Bakori Local Government Area before data collection. The reliability and validity of the instrument were established by administering the instrument on 30 respondents in Dutsen-reme area with the same social background. Participants' informed consent was obtained verbally. All questionnaires were checked for consistency and completeness, and the open-ended responses were coded for data entry and analysis. Data analysis was undertaken using Statistical Package for Social Sciences (SPSS) version 21.0. Basic descriptive statistics included frequency distribution and simple percentages. Crosstabulation was also used to measure some degree of relationships between one particular variable and another. Also, a chi-Square test was employed to test relationships and to test the formulated research hypotheses.

Respondent's Age Category	Frequency	Percentage
Less than 18 years	46	12.5
18 - 35 years	242	65.8
36 years and above	80	21.7
Total	368	100.0
Religion		
Islam	255	69.3
Christianity	97	26.4
African traditional religion	16	4.3
Total	368	100.0
Marital Status of Respondents		
Single	15	4.1
Married	292	79.3
Divorced	26	7.1
Separated	13	3.5
Widowed	22	6.0
Total	368	100.0

#### Table 1: Socio-Demographic Characteristics of Respondents

Ethnicity of Respondents		
Yoruba	63	17.1
Hausa	193	52.4
Fulani	54	14.7
Igbo	39	10.6
Other tribes	19	5.2
Total	368	100.0
Independent Source of Income		
Yes	99	26.9
No	269	73.1
Total	368	100.0
Educational Qualifications		
No formal education	133	36.1
Our'anic education	58	15.8
Primary education	31	8.4
Secondary education	121	32.9
Post-secondary education	25	6.8
Total	368	100.0
Employment Status of Respondents	500	100.0
Full-time housewife	88	23.9
Artisan	112	30.4
Civil servant	76	20.7
Still studying	86	23.4
Retired	6	16
Total	368	100 0
Average Income per Month	500	100.0
Below N5 000	112	39.7
$N_{6} 000 = N_{25} 000$	00	35.1
$N_{26} 000 = N_{45} 000$	45	16
$N_{46}$ 000 and above	26	9.2
Total	20	100.0
10tal Hughend's Level of Education	282	100.0
No formal advantion	24	6.5
Our'ania aducation only	24	0.5
Drimary advection	27	7.3
Secondary education	70	10.0
Post secondary education	212	19.0 57.6
Tost-secondary education	212	100.0
	308	100.0
Husband's Level of Income	52	14.4
High Middle	55 266	14.4
	200	12.5
	49	13.3
Total	368	100.0
Number of Children	207	54.0
1 - 4 Children	207	56.3
5 - / Children	135	36.7
8 children and above	26	/.1
Total	368	100.0
Nature of Marriage		
Monogamous	229	62.2
Polygynous	139	37.8
Total	368	100.0

Researcher's Fieldwork, 2021

#### **Findings**

The findings of the research indicates that 65.8% of the respondents were within the age category of 18 - 35 years, this indicated that majority of the respondents were within the reproductive age category while, 21.7% were having 36 years and above, and 12.5% had less than 18 years as presented in Table 1. In addition, 69.3% practice Islamic religion, the followers of the Christian faith was 26.4%, while only 4.3% were followers of African traditional religion. The findings further reveal that majority (79.3%) of the respondents were married. Two hundred and sixty-nine respondents (73.1%) claimed not to have an independent source of income; only 26.9% of the respondents had an independent source of income. An independent source of income is very critical when it comes to choice and seeking medical assistance.

On the educational qualification of the respondents, 36.1% of the respondents had no formal education, while 32.9% had Secondary education, and 15.8% had Qur'anic education only. Moreover, only 6.8% had post-secondary educational qualifications, and 8.4% of the respondents only had Primary education. Educational level of a woman determines her worldview and understanding of social happenings. Those with higher qualifications are assumed more open to realities and information than those with lower educational attainment do. The educational qualification of a woman determines her access to maternal health services.

The respondents were asked about their employment status, 30.4% of the respondents were artisans, while 23.9%, 23.4%, and 20.7% were full-time housewives, still studying and civil servants, respectively. Employment status of a woman and independent income plays a significant role when it comes to accessing maternal health services. Because if she has an independent source of income, she can easily use the resources at her disposal in order to access maternal health services without any hiccups.

On the average income of respondents per month, 39.7% were getting below  $\mathbb{N}$  5, 000 per month. More than 35% of the respondents earn between  $\mathbb{N}6$ , 000 -  $\mathbb{N}25$ , 000 in a month, and 16% earn  $\mathbb{N}26$ , 000 -  $\mathbb{N}45$ , 000 per month. It is only 9.2% of the respondents that get  $\mathbb{N}46$ , 000 and above in a single month. It can be concluded from here that a significant number of the respondents live below the poverty-line of \$1.25 per day, and this profoundly influences access to maternal health services.

## Extent to Which Women are Accessing Maternal Health Services

Up to 35% of the respondents affirmed that General hospital was the health facility they patronized (see Table 1). Moreover, 23.6% posited that a Comprehensive healthcare centre provides them with the needed services. Primary healthcare centres were patronized by 18.2% of the respondents, while 12.5% of the respondents relied on the services of traditional healers/traditional birth attendants. Moreover, the Table shows that Federal medical centres, dispensaries/health posts, and University teaching hospitals were the least facilities being patronized by the respondents with 5.2%, 4.3%, and 0.8% respectively because they are limited in the study area. Those whose husbands either work in those tertiary health institutions or live in the towns where the facilities are located only patronized them. In general, it can be inferred from the findings of this study that the majority of the respondents (87.4%) patronize modern health facilities.

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Health Facility	Frequency	Percentage
Dispensary/Health posts	16	4.3
Primary healthcare centres	67	18.2
Comprehensive health centres	87	23.6
General hospitals	130	35.3
Federal medical centres	19	5.2
University teaching hospitals	3	0.8
Traditional healers/Traditional birth attendants	46	12.5
Total	368	100.0
Consultation with Someone during Pregnancy		
Yes	140	38.0
No	21	5.7
Not pregnant	207	56.3
Total	368	100.0
Personnel consulted		
Doctor/nurse/midwife	103	73.6
Community extension health worker	15	10.7
Traditional birth attendant	16	11.4
Relative/friend	6	4.3
Total	140	100.0

Table 2:	Category	of Healthcare	Facility	Patronized I	hv the Res	spondents
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Researcher's Fieldwork, 2021

Table 2 further indicates that a significant number of pregnant respondents (38%), out of those bearing pregnancies (161 respondents), consulted someone concerning their pregnancies. About 84.3% of pregnant

respondents consulted trained healthcare providers. Only 11.4% of pregnant women sought the services of traditional birth attendants, and 4.3% consulted either their relatives or friends. It is evident from the findings of this research, that majority of the respondents (84.3%) sought competent medical help from skilled personnel when they were pregnant, because of their availability in health facilities or the communities.

Location	Frequency	Percentage
My home	48	13.0
Other home	55	14.9
Government hospital	176	47.8
Government health dispensary	44	12.0
Private hospital/clinic	45	12.2
Total	368	100.0
Major Problems Encountered during Antenata	al Care Visits	
Long waiting time	140	38.0
Distance of the facility	65	17.7
High cost	46	12.5
Treated with disrespect	39	10.6
No drugs	10	2.7
Dirty facility	8	2.2
Shortage of personnel	21	5.7
None	39	10.6
Total	368	100.0

#### Table 3: Place of Antenatal Care Reception in Previous Pregnancies and Problems Encountered

Researcher's Fieldwork, 2021

Research findings indicate that a significant proportion of the respondents (47.8%) received antenatal care in General Hospitals from a skilled health provider, as contained in Table 3. However, 14.9% of the respondents had their antenatal care in other homes apart from theirs, while 13% received antenatal care in their homes. However, receiving antenatal care in places apart from health facilities is dangerous to the health of the mother and the baby. An unskilled health provider, like a traditional birth attendant, or relative, may provide the service that may lead to both maternal or infant morbidity and mortality. Also, 12.2% visited private hospitals/clinics for antenatal care. In general, 72% of the respondents received antenatal care in a health facility from a trained provider, and this is very critical when it comes to controlling and curbing maternal morbidity and mortality rates. This shows that a high percentage of the respondents receive antenatal care in a health facility from a skilled provider.

In the process of accessing maternal health services, some women face some issues that, at times, stand as barriers. When the respondents were asked about the major problems they encountered during any of their antenatal care visits, the research findings in Table 3 revealed that 38% of the respondents posited that long waiting time was the major problem they encountered in the process. Distance or locating the healthcare facilities stood as the second most encountered problem among the respondents (17.7%), while the high cost is recognized by 12.5% of the respondents as their main problem in accessing the healthcare services. Long waiting time, distance of the facility and the cost incurred in the process are considered as part of determinants of access. For easier access to maternal health services, waiting time should be shortened, facilities must be fairly distributed, and the cost is minimized. Thirty-nine respondents (10.6%) said they were treated with disrespect, and 5.7% of the respondents maintained that shortage of health personnel in the facilities was the main problem they encountered in the process of antenatal care attendance. The shortage of drugs in the healthcare facilities and untidiness of the facilities were the major problems encountered by 2.7% and 2.2% of the respondents, respectively. However, 10.6% of the respondents said that they did not encounter any of the stated problems during their antenatal care visits, which implies that they were very much satisfied with the services offered to them in the several healthcare facilities.

Frequency	Frequency	Percentage
One time	55	34.2
Two times	51	31.7
Three times	31	19.3
Four times	16	9.93
Five times and above	8	5
Total	161	100.0
Assistance Provider during Previous Deliveries		
Doctor/nurse/midwife	232	63.0
Community extension health worker	30	8.2
Traditional birth attendant	58	15.8
Relative/friend	35	9.5
No body	13	3.5
Total	368	100.0

# Table 4: Antenatal Care Reception Frequency for Current Pregnancies and Assistance Provider during Previous Deliveries

Researcher's Fieldwork, 2021

The findings of this study revealed that out of the 161 respondents that were pregnant when conducting this study, 34.2% and 31.7% had antenatal care visits only once and twice, respectively, as presented in Table 4. Besides, 19.3% had antenatal care three times, 9.93% had theirs four times. However, it was only 5% of the pregnant respondents had their antenatal care visits more than four times. Almost all pregnant respondents had antenatal care from either a skilled provider or a traditional birth attendant. The findings of the research show that a significant percentage of pregnant women in Funtua Local Government Area, visited healthcare facilities for antenatal care when they were pregnant.

Skilled health providers play a significant role in terms of assisting with deliveries and resolving complications, as revealed by the findings of this research, which is key to controlling maternal morbidity and mortality rates. Skilled providers, as presented in Table 4, assisted a high percentage (71.2%) of the respondents. Traditional birth attendants assisted 15.8% of the respondents during their previous deliveries on the other side. Relatives and friends of 9.5% of respondents assisted them during their previous deliveries. Table 4 shows that it was only 3.5% of the total respondents were not assisted by anybody during their previous deliveries.

Locations of Last Delivery	Frequency	Percentage
My home	89	24.2
Other home	30	8.2
Government hospital	171	46.5
Government health dispensary	9	2.4
Private hospital/clinic	41	11.1
No response	28	7.6
Total	368	100.0
Reasons for Home Deliveries		
Cost too much	29	24.4
Facility not open	6	5
Too far/no transportation	36	30.3
Don't trust the facility	6	5
Poor quality service	3	2.5
No female provider at facility	3	2.5
Family/husband did not allow	15	12.6
Not necessary	4	3.7
No time because baby came suddenly	17	14
Total	119	100.0

Table 5:	Location	of Last	Deliverv	and Rea	asons for	Home	Deliverv
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Researcher's Fieldwork, 2021

Table 5 shows that up to 60% of the respondents delivered in healthcare facilities under the watch of trained health providers. However, home delivery among the respondents was 32.4%. The findings of the research indicate that a significant percentage (60%) of women in Funtua Local Government Area delivered in healthcare facilities under the care of a trained provider.

Up to 32.4% of the respondents that delivered in other places apart from healthcare facilities were asked about reasons for home deliveries. Table 4 shows that 30.3% of the respondents did not deliver in healthcare facilities because the facilities were out of either reach or the absence of means of transportation when the delivery came up. Also, 24.4% of the respondents delivered in other places apart from healthcare facilities because the cost of the services was too high for them, and could not afford it. Besides, 14% delivered at home because the baby came suddenly. However, 12.6% of the respondents delivered at home because their husbands or their family members did not allow them to deliver in health facilities, and in a patriarchal society, husband control over the affairs of his wife is critical. Up to 2.5% of home deliveries were because they found it not necessary to deliver in healthcare facilities and 5% of the respondents maintained that they did not deliver in health facilities was the reason for home delivery to 2.5% of respondents, and 5% of the respondents said they delivered in their homes because the image healthcare provider in the facilities was the reason for home delivery to 2.5% of respondents, and 5% of the respondents said they delivered in their homes because the image healthcare provider in the facilities was the reason for home delivery to 2.5% of respondents, and 5% of the respondents said they delivered in their homes because the healthcare facilities was the reason for home delivery to 2.5% of respondents, and 5% of the respondents said they delivered in their homes because the healthcare facilities.

Check After Birth	Frequency	Percentage
Yes	339	92.1
No	25	6.8
No response	4	1.1
Total	368	100.0
Checked By Health Provider		
Doctor/nurse/midwife	210	57.1
Community extension health worker	30	8.2
Traditional birth attendant	64	17.4
Relative/friend	64	17.4
Total	368	100.0
Willingness to Visit a Health Facility in t	he Future for Materna	l Health Services
Yes	308	83.7
No	52	14.1
Undecided	8	2.2
Total	368	100.0

#### Table 6: Check after Delivery

Researcher's Fieldwork, 2021

The majority of the respondents (92.1%), maintained that they had their health status checked after deliveries, while 6.8% indicated that nobody checked on them after their deliveries. Either a significant percentage of the respondents had their health statuses checked because of facility-based deliveries, or even if it were a home delivery, they delivered with the assistance of a trained health provider. Skilled health personnel checked 65.3% of the respondents after their deliveries, as contained in Table 6. In addition, traditional birth attendants checked 17.4%, and relatives and friends checked 17.4%. To sum it up, 34.8% of the respondents were attended by non-conventional health providers, which may endanger the lives of the mothers and the babies when faced with complications.

Table 6 shows that the majority of the respondents (83.7%) gave an affirmative response to their willingness to visit a health facility for maternal health services in the future. This positive willingness on the part of the respondents may not be unconnected with the skilled and professional advice and assistance they received in the facilities and their satisfaction with the services. On the other side, 14.1% of the respondents expressed unwillingness to visit any health facility whenever they become pregnant in the future. However, it was only 2.2% of the total respondents, which were not sure about whether they would

visit healthcare facilities in the future or not. Furthermore, the study tested whether there is significant relationship between maternal education and antenatal care attendance.

		How many times did you receive antenatal care during this pregnancy?				Total	
		One time	Two times	Three	Four times	Five times &	
				times		above	
	No formal education	1	5	7	1	1	15
Education of	Qur'anic education	9	7	4	1	1	22
Educational	Primary education	7	4	1	0	0	12
quanneation	Secondary education	15	23	6	9	0	53
	Post-secondary education	23	12	13	4	6	58
Total		55	51	31	15	8	160

Table 7. Matamal Education	tion and Antonata	Come Attendance	during a the	annuant Dua an an	<b>.</b>
Table /: Maternal Luuca	tion and Antenata	Care Attendance	auring the	current Pregnan	cies

Researcher's Fieldwork, 2021

## Chi-Square value = 31.853, Critical table value = 26.30, df = 16 and Alpha level = 0.05

To test this hypothesis, a Chi-Square test at 0.05% level of significance, at 16 degrees of freedom, was carried out as presented in Table 7. The result of the test shows that there is a relationship between the level of education of a woman and her access to a major component of maternal healthcare, i.e., antenatal care. The computed value of the Chi-Square test is 31.853, and the Critical value is 26.30. Therefore, the computed Chi-Square value is greater than the critical value. Thus the null hypothesis was rejected while the research/alternate hypothesis that says, "there is a relationship between maternal education and antenatal care attendance" was accepted. This shows that there is a relationship between maternal education and antenatal care attendance. It is concluded that if women are well educated, they will have frequent antenatal care attendance, and the higher their level of education, the more frequent they visit healthcare facilities to access maternal health services. Therefore, it can be concluded that maternal education is a determinant of access to maternal health services.

Table 8: Maternal Ind	epenaer	it income and A	Antenatal Car	e Attendance			
	How many times did you receive antenatal						
		care du	care during the last pregnancy?				
	1 - 2 times $3 - 4$ times 4 times and						
				above			
Do you have	Yes	46	70	89	205		
independent source of							
income?	No	26	32	16	74		
Total		72	102	105	279		

## Table 8: Maternal Independent Income and Antenatal Care Attendance

Researcher's Fieldwork, 2021

Chi-Square computed value = 11.489, Critical value = 5.99, df = 2 and Alpha level = 0.05

The hypothesis with variables: maternal independent income and antenatal care attendance was tested at 0.05% level of significance as contained in Table 8, using Chi-Square at 2 degrees of freedom. The calculated value is 11.489, which is greater than the Critical value of 5.99. Therefore, the null hypothesis was rejected while the alternate hypothesis that says, "there is a relationship between maternal independent income and antenatal care attendance" was accepted. This implies that having independent income on the part of women plays a significant role in terms of helping them to have access to maternal healthcare services in general and antenatal care in particular, which is a major component of maternal health. This independent income provides women with the needed funds to be used in order to access these services without relying on someone, and in the appropriate time, and help them to be financially independent.

## Discussion

This study aimed at analysing the extent to which women are accessing maternal health services in Funtua Local Government Area of Katsina State, Nigeria; In order to achieve this, the questionnaire was designed and administered to the respondents. It was found that some socio-demographic and economic factors have an influence on access to maternal health services. They include educational status of women and independent source of income. These findings agree with those of previous studies of Yar'zever and Said (2013). The findings of this research reveal that a high percentage of the respondents (71.5%) relied on the services being offered by modern healthcare facilities. This is in line with the study of Yar'zever and Said (2013), where they found 63.4% and 51.4% of women in both urban and rural areas utilized modern healthcare facilities and its programs in Kano. Also, the study found that 72% of the respondents received their antenatal care in health facilities from a trained healthcare provider.

However, 55.2% of the respondents found it challenging to access available maternal health services. These findings can be supported by the result of the tested hypothesis that says, "There is a relationship between independent maternal income and antenatal care attendance". Up to 66% of the respondents relied on their husbands to provide money used in order to access maternal health services. This agrees with the findings of Perry and Gesler (2000) that found limited physical access to care to be a significant obstacle in improved health. Limited access is especially important in rural areas where there are fewer healthcare facilities, and villages may be physically isolated from the services. The findings of Mallick et al. (2016) support the findings of this research; they averred that more advantaged groups of women receive more components of antenatal care during their pregnancies. Differences are significant for all demographic characteristics. Disparities have broadened over time across wealth categories for most components of care, checks and counselling of complications during pregnancy.

The significant proportion of women who delivered in the health facility was 60%, as found by this study. Health facility deliveries are more likely to be attended to by a doctor or nurse/midwife, whereas home deliveries are likely to be attended to by a traditional birth attendant, a relative (or other unskilled persons), or no one (Shehu et al. 2016). By its nature, facility-based delivery occurs in a medical environment and thus can reduce adverse pregnancy outcomes. Additionally, a skilled provider can provide immediate lifesaving intervention in the event of delivery complications. Thus, skilled attendance at delivery in a medical environment has been demonstrated to reduce not only maternal deaths but also neonatal deaths (Darmstadt, Lee, & Cousens, 2009). This brings to the fore, the ongoing debate of training of traditional birth attendants so that they can be better trained at recognizing some obstetric danger signs and hasten referral of such cases to modern health facilities. The presence of traditional birth attendants within a community increases the probability of traditional birth attendants' assistance and a reduced probability of assistance by a relative or other unskilled person. Thus, it is evident that traditional birth attendants play an essential role in communities underserved by trained medical personnel. At the same time, their presence does not drive people away from seeking care from skilled healthcare providers. Furthermore, women residing in rural areas are more likely to deliver at home and are less likely to be attended by trained medical personnel, possibly because of their stronger attachment to cultural values and beliefs, and the unavailability of modern healthcare facilities close to them.

This, however, disagrees with the findings of the 2013 NDHS in Katsina State, where it pointed out that the majority of women in the State (66%) did not visit any healthcare facility for antenatal care. It also rejects the reports of WHO (2014), where it presented that skilled providers attended about 50% of births in Africa. The findings of this study also disagree with the study of Mallick et al. (2016), where they argued that most births in Nigeria occur at home. Facility-based births in 2003 were 33% and 36% in 2013. It has been reported that women who had more than four antenatal care visits were more likely to deliver with a skilled attendant than those with fewer visits (Singh, Kumar, & Pranjali, 2014 and Pervin et al., 2012). It is also a fact that frequent antenatal care visits expose the women to more health education, health promotion

services and counselling, which are both likely to increase service utilization. This study is limited by the quantitative method employed and the location of the study.

## Conclusion

The findings of the research revealed that a high percentage of mothers of under-fives in Funtua Local Government Area (71.5%) patronized modern healthcare facilities, and a significant proportion of the respondents (60%) had a facility-based delivery despite the barriers in accessing the services. The identified reasons for home deliveries among the respondents were the affordability of the services, husbands of parental approval, and the location or lack of means of transportation to access the services. Moreover, the identified problems encountered during antenatal care visits were long waiting time, cost incurred in the process and distance of the facilities. Despite the difficulties, a significant number (83.7%) expressed a willingness to visit health facilities in the future. The general recommendation is about women empowerment and improved political will to improve the coverage of maternal health services. Outreach programs to provide vital information on the importance of delivery at health facilities should be reinforced. Fair distribution of facilities fairly would also help in reducing waiting-time and will make maternal health services more accessible.

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