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AN ASSESSMENT OF THE SOCIO-DEMOGRAPHIC FACTORS INFLUENCING MATERNAL HEALTHCARE IN KOGI STATE

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ABSTRACT
Maternal health is paramount in ensuring the continuity of the human population as well as improving the socio-economic development of a nation. As evident in the target of the third (SDG) goal five set to reduce the global maternal mortality rate (MMR) to less than 70 per 100,000 live births by 2030. It is in this light that this research sought to assess the socio-demographic factors influencing maternal healthcare in Kogi state. The multi-stage sampling technique was used in sampling respondents for this study who were women in the reproductive age group aged 15-49. Descriptive statistics was used to analyze the data. The study shows that 48% of women in the study area are of childbearing age are poor. Also, the study shows that the women had poor access to maternal healthcare service in Healthcare facility due to lack of money to pay for transportation, drugs and medical service charge at the facility. The study recommends women empowerment which will consequently enhance their economic incentives to accessing quality maternal health services in the study area.

Keywords: Socio-Demographic, Access, Healthcare, Kogi State

1.0 INTRODUCTION

Childbirth ensures the continuity of human population and is a universally celebrated event .Yet for many thousands of women, childbearing is sometimes experienced not as the joyful event that it should be, but as a tragedy that may end in death because of inaccessibility to quality healthcare services by women (Agabi, 2010; Main, 2018). Maternal mortality is referred to as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related or aggravated by the pregnancy or its management but not from accidental or incidental causes (Main, 2018). Where the cause of death is inadequately identified in the event of the death of a woman, so long as it occurred while she is pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death, the term pregnancy-related death is used (United Nations International Children's Fund (UNICEF), 2016). Maternal mortality has been on the increase in recent times with detrimental effects on the socio-economic development of many nations. According to the World Health Organization (WHO) (2016), approximately 830 women die globally every day from preventable causes related to pregnancy and childbirth. More worrisome is the fact that 99% of all maternal deaths occur in developing countries. It mainly occurs in resource-limited settings from preventable causes and affects women of childbearing age (15-49 years of age) with poorly met health needs (WHO, 2016).

Maternal mortality is unevenly spread geographically with stark differences between developed and developing countries (Ronsmans & Graham, 2016). Developing nations bear the brunt (99%) of maternal deaths, with over 50% occurring in sub-Saharan Africa (Hill, 2007; WHO, 2015). From 1990 to 2015, the global maternal mortality ratio declined by 44 per cent; from 385 deaths to 216 deaths per 100,000 live births (WHO, 2016). This translates into an average annual reduction rate of 2.3 per cent. While this looks impressive, it is less than half of the 5.5 per cent annual rate required to achieve the three-quarters reduction in maternal mortality target for 2015 in the rested Millennium Development Goal five (UNICEF, 2008) and nowhere close to the goal three (3) of the Sustainable Development Goals targeted at reducing the global maternal mortality ratio to less than 70 per 100,000 live births (UNICEF, 2017). Almost all maternal deaths can be prevented, as evidenced by the vast disparities found between the richest and poorest countries. The lifetime risk of maternal death in high-income countries is 1 in 3,300, compared to 1 in 41 in low-income countries (WHO, 2015). The number of women and girls in the world who die each year from complications of pregnancy and childbirth declined from 532,000 in 1990 to 303,000 in 2015 (APHRC, 2017). According to current world statistics, over 800 women die each day from complications in pregnancy and childbirth; and for every woman who dies, approximately 20 others suffer serious injuries, infections or disabilities (UNICEF, 2016).

In Nigeria, despite the administration of a wide range of maternal health service strategies including free antenatal care, training of skilled birth attendants; as well as the availability of resources, the situation of maternal health remains one of the worst in Africa as evidenced by prevailing maternal mortality ratios (Zahr & Royston, 2011). Nigeria contributes more significantly than 19% of maternal deaths globally (WHO, 2012). This prevailing problem in Nigeria is strongly linked to the weak implementation of maternal health policies and services as well as the presence of several cultural and socio-economic factors including lack of funds and lack of birth preparedness (Rogo, Oucho & Mwalali, 2016). The maternal health care system in Nigeria is one which is characterized by traditional, faith-based and orthodox healthcare providers (Rogo et al., 2016). The presence of factors such as traditional and faith-based healthcare providers linked with the socio-economic and deleterious cultural determinants of maternal health can be implicated as a plausible reason for the seemingly weak health system. This implication is evident in some pregnancies being managed by these non-orthodox methods; the inability to recognize danger signs in pregnancy and the ensuing high maternal death rates.

There are other known factors aside medical conditions responsible for maternal mortality in Nigeria; these factors include but are not limited to social, economic and cultural factors, which have a direct influence on maternal mortality. Interestingly, maternal mortality in most of the rural areas in Nigeria is caused by other precipitating factors that are non-medical. These factors range from poverty, low level of education or absence of it, prohibited food, low purchasing power and certain harmful cultural

beliefs and practices that encourages high percentage of women, especially in the rural areas to now patronize faith clinics and traditional practitioners as alternative health care (Olapade & Olawoyin, 2018).

Apart from the problems posed by these factors, maternal health is also plagued with problems of poverty, illiteracy, lack of knowledge, delay in reaching health facilities either due to inaccessibility, poor roads, low communication networks, inadequate transportation systems or long distances to be covered as well as delays in receiving appropriate care at health facilities which are characterized by absence of quality maternal health services, the inadequacy of skilled birth attendants, inadequate medical supplies during labour, delivery and after the delivery; There is thus, the need to focus on prevention of maternal deaths in Nigeria by tackling these problems affecting the ability of pregnant women to access timely and quality maternal health services (Olapade *et al.,* 2018).

Olaleye,(2009) carried out a study on the level of awareness on the causes of maternal mortality among rural women in Ondo State using multi-stage random sampling technique through a structured questionnaire to elicit information from the respondents concerning their level of awareness on the causes of maternal mortality. His findings revealed that most of the respondents were aware of the causes of maternal mortality; (94.2%) were aware of the danger of patronizing the Traditional Birth Attendants (TBAs). In comparison (74.2%) did not have the money to go for antenatal care. However, most respondents were unaware of the importance of visiting hospitals during pregnancy.

In another study, Onifade, (2010) researched the incidence of maternal mortality among pregnant women in Oyo state using the systematic random technique. It was discovered that about 45% pregnant women were not attending antenatal clinics during pregnancy and about 30% delivered at home under the care of Traditional Birth Attendants (TBA s) while only about 35% received adequate healthcare from the period of pregnancies till delivery. His findings also revealed that the incidents of maternal mortality were higher (35%) among those pregnant women who did not go for maternal care and those who delivered under the cases of TBAs, while minimal incidence (8%) of maternal mortality was recorded among those pregnant women who received adequate health care.

Awoyesuku, Macpepple and Altraide, (2018) in their work on the Magnitude, Trends and Causes of Maternal Mortality which they did at a tertiary hospital in Rivers State, Nigeria sought to determine the magnitude and trend in maternal mortality and the causes at the tertiary hospital over a seven-year study period was done through a retrospective review of maternal mortality and causes from 2012 to 2018. They found that the trend of maternal mortality was worsening as 110 maternal deaths occurred out of 17,080 total births during the study period. The most typical causes of maternal deaths were Pre-eclampsia and Eclampsia (40%), Postpartum Haemorrhage (22.7%) and Ruptured Uterus (11.8%).

In another study conducted by Usman, Abdullahi and Awawu in (2019) on estimating maternal mortality by sisterhood method in two rural communities in Kaduna State, Nigeria. Their study used the indirect sisterhood method to estimate the percentage of death due to maternal causes, and the lifetime risk of maternal death in two rural communities in Kaduna.

They found that maternal deaths accounted for 50% of the deaths reported in the study among the respondents' sisters because women in the area, more often than not, deliver at home without a skilled birth attendant. This could also point to the fact that the health facilities in these areas were understaffed, underutilized, and ill-equipped. It showed that there was a relationship between maternal education and maternal mortality, with maternal literacy being a predictor for maternal mortality. In the same vein, educated women were more likely to adopt low-cost and straightforward practices to maintain hygiene, respond to symptoms such as bleeding or high blood pressure, and access the information on abortion and place of abortion, and more willing to accept treatment and birth attendance.

Azuh, Iweala, Adeloye, Akanbi, and Mordi (2017) in their research on Factors influencing maternal mortality among rural communities in south-western Nigeria which focused majorly at identifying non-medical factors associated with maternal mortality in rural and semi-urban communities of south-western Nigeria using a multi-stage sampling technique. They found that Place of consultation (P=0.000), who pays the treatment costs (P=0.000), awareness of pregnancy complications (P=0.002) and knowledge of the place of antenatal care treatment (P=0.000) significantly influenced maternal mortality (proxy by place of delivery of last birth). They reiterated that in a rural community setting with a depleted health care system, health education tailored toward community culture, subsidized maternal health care services by the government and operators of private clinics, as well as empowering and improving the status of women may reduce maternal mortality and prompt better utilization and survival chances of women in the study area as well as in all of Nigeria.

Olonade, Olawande, Alabi and Imhonopi (2019) also researched maternal mortality and maternal healthcare in Nigeria in terms of its implications on the socio-economic development. Their focus was on cogent issues affecting maternal mortality as well as maternal healthcare in Nigeria. They used the functionalist perspective as a theoretical guide to examine the interrelated functions of several sectors of society concerning the outcome of maternal health. They found that apart from medical-related causes, socio-cultural factors, and economic factors influence the outcome of pregnancy.

Agan, Monjok, Akpan, Omoroniya and Ekabua (2018) assessed the trend and causes of maternal mortality in the University of Calabar teaching hospital between 2010 - 2014. They aimed to determine the trend in maternal mortality in UCTH. In a retrospective survey method, they found that the mean age maternal death was 27 ± 6.5years. Their findings revealed that abortion 21.3% and hypertensive diseases in pregnancy, 16.4% were the leading causes of maternal deaths within the period. However, they noted that most of the deaths (75.5%) occurred between 24 and 97 hours of admission.

Aboyeji, Ijaiya and Fawole (2014) researched maternal mortality in Northern Nigerian teaching hospitals. The study reviewed maternal deaths between 1st January 2006 and 31st December 2011. During the study period, there were a total of 13,092 live births and 108 maternal deaths. In the study, the overall Maternal Mortality Ratio (MMR) stood at 825 per 100,000 live births at a 95% confidence interval. The study revealed MMR was highest in those aged 49 and above years while lowest in those aged between 20 and 24 years. Furthermore, they identified the common cause of maternal death to include severe eclampsia (27.8%), haemorrhage (20.4%)

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complication of unsafe abortion (14.8%), puerperal sepsis (7.4%) and ectopic pregnancy (4.6%). The study revealed that majority of maternal deaths occurred in patients of low socio-economic status where 75.4% of the respondents had either no education or attended only primary school with 72.2% of their husbands being unskilled workers. 47.2% of the maternal deaths occurred within 24 – 72 hours in the health facility.

Aboyeji *et al.,* (2014) recommended strategies of reducing maternal death in Nigeria as a more substantial political commitment; availability of more traditional birth attendants needs to be trained and retrained to recognize obstetric emergencies, health workers must address the socio-cultural factors that inhibit the utilization of health care facilities as well as for communities to increase acceptance of and demand for hospital deliveries. Services such as improved communication systems, roads and emergency transportations must also be upgraded.

Adequate access to healthcare and maternal mortality remains a challenge in Nigeria. Only about 40% of women in the North-Central Zone of Nigeria attend antenatal care (NPC and ICF Macro, 2017) which is lower than the national average of 60% (NDHS, 2008; Galadanci, Idris, Sadauki, and Yakasai, 2015).

Galadanci *et al*. (2015) revealed that the location and travel distance to receive care by expectant mothers is a significant problem in developing countries other problems are cultural practices, beliefs, barriers or taboos preventing ante-natal care, attitudes and behaviours of midwives, lack of surgical care in primary health care and maternity clinics that are closer to the rural people, teenage pregnancies, lack of enlightenment about basic rules of hygiene exercises of expectant mothers, post-delivery complications, religious doctrines that limit healthcare intervention in complicated cases, inadequate drugs and limited access for vehicles and communication channels to reach where adequate care can be received and the inadequate infrastructural facilities to enhance healthcare delivery. The situation is further aggravated by poverty and ignorance, which accounts for women's inability to access health facilities, antenatal care and delivery services (Lissner and Weissman, 2016).

Access to and utilization of health care services outlets is a challenge in Kogi State, especially in rural areas leading to the prevalence of maternal deaths (Illiyasu, Alagh, and Umar, 2014). Low maternal health status in Kogi State may primarily be attributable to the interplay of factors such as the absence of adequate health care facilities, accessibility to them, and the absence of skilled personnel. It is posited that no single intervention measure may considerably decrease the rate of maternal mortality, hence the need to examine other demographic and socio-cultural factors in order to understand comprehensively the factors affecting maternal health and mortality in Kogi State. Thus, this study seeks to assess and evaluate the accessibility of pregnant women to healthcare facilities, distribution of healthcare facilities as well as identify the social-demographic factors influencing maternal healthcare accessibility in the study area.

This study consequently seeks to find answers to the following questions:

1. What are the socio-demographic characteristics of women of child bearing age in the study area?
2. What are the socio-demographic factors influencing women of child bearing age's access to healthcare?

This therefore study aims at assessing socio-demographic factors influencing maternal healthcare among women of childbearing age in Kogi state. This was achieved by the following objectives:

a. To identify the socio-demographic characteristics of women of child bearing age in the study area.
b. To assess the factors influencing women of child bearing age's access to healthcare in the study area.

This research covers the three senatorial districts in Kogi state. The study considers a target population for the information on access to healthcare would be majorly women in the reproductive age group of 15-49. Government-owned Hospital data was used to infer on the extent of maternal healthcare in the study area and was transcribed into a women's hospital record data extraction table format (WHRDET). The period under investigation is for five years (2014-2018) based on availability and validity of data.

2.0 MATERIALS AND METHODS

2.1 Study Area

Location: Kogi state is located in the central region of Nigeria. It is popularly called the Confluence State because the confluence of River Niger and River Benue is at its capital, Lokoja. It is located on Latitude 06˚49' N and 08˚45' N and Longitude 05˚57' E and 08˚30' E, as shown in Figure 2.1

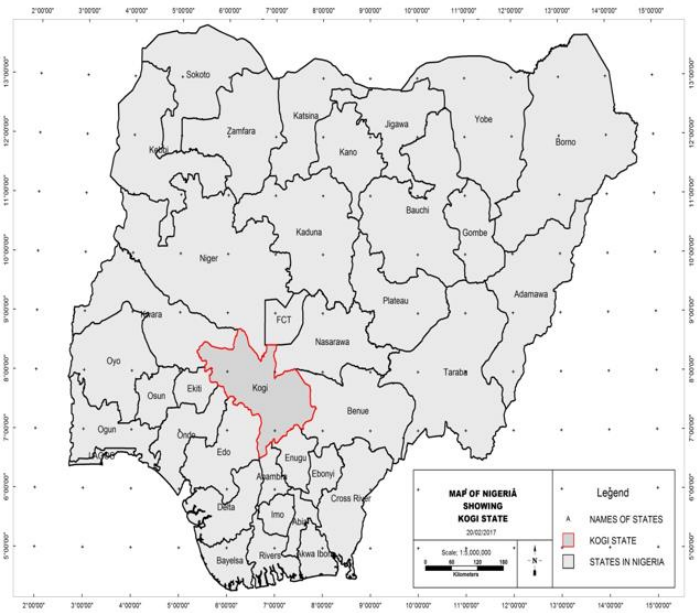

Fig 2.1: Nigeria showing Kogi State.
Source: *Kogi State Ministry of Lands and Urban development (2017).*

It covers a total land area of about 29,833 km^2 (Kogi Ministry of Lands and Survey, 2018.). It is one of the six states that make up Nigeria's Northcentral geo-political zone along with the Federal capital territory (FCT).

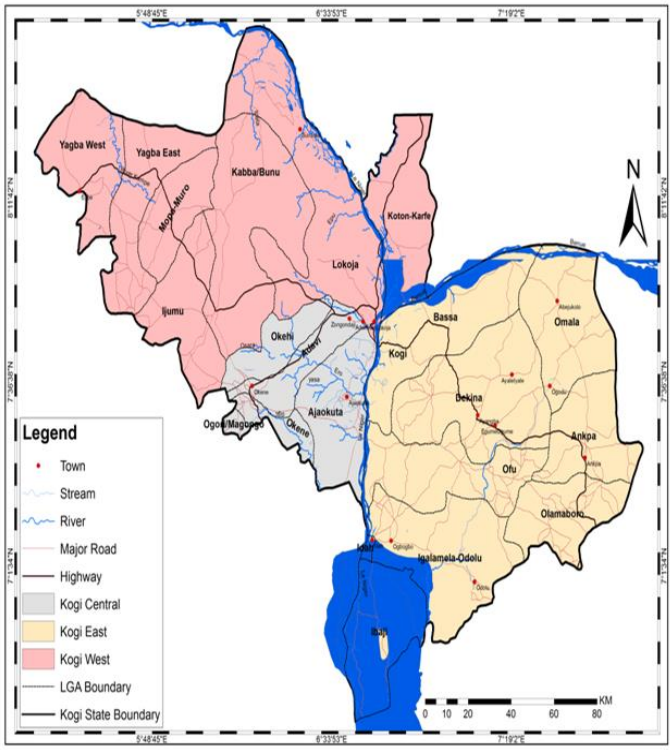

Fig 2.2: Kogi State showing the Senatorial districts.
Source: *Kogi State Ministry of Lands and Urban development (2017).*

Three local governments in Kogi state were sampled for this study. They are Lokoja, Okene and Dekina Local Government Areas. The map of Kogi state showing the sub-study areas is presented in figure 2.2, which lies between Latitude 07˚ 49' N,07˚33' N and Longitude 06˚16' E, 07˚ 26' E respectively.

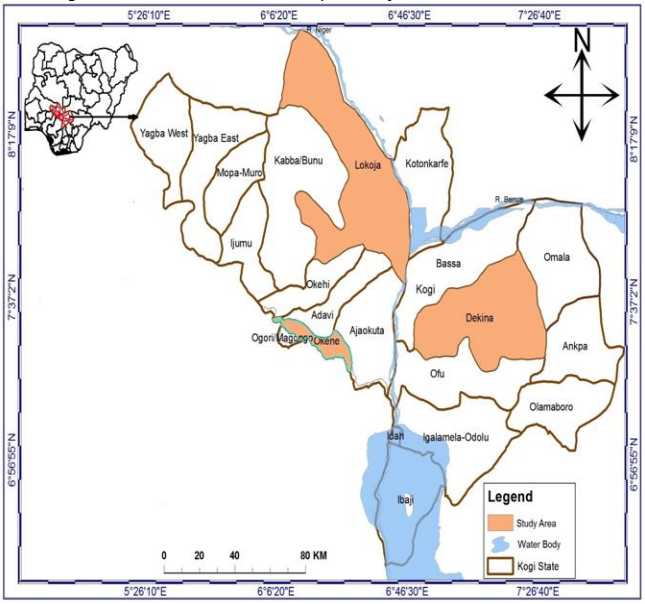

Fig 2.3 Kogi State Showing the Study area
Source*: Kogi State Ministry of Lands and Urban development (2017*).

Lokoja is a Local Government Area of Kogi State with an area of 3,180 km² and a population of 195,261 at the 2006 census. It is bounded by the Niger river in the north and to the east upstream from the capital until the border with Kwara State and includes the city of Lokoja. The postal code of the area is 260.
Lokoja is on Latitude 07^0 23' N, 07^{0}40' N and Longitude 06 ^{0}26'E, 06^0 33' E East of the Meridian. It is about 165 km Southwest of Abuja as the crow flies and 390 km Northeast of Lagos. Residential districts are of varying density, and the city has various suburbs such as Felele, Adankolo, Otokiti and Ganaja. The town is situated in the tropical Wet and Dry savanna climate zone of Nigeria, and the temperature remains hot all year round (KMLS, 2018).
Okene is also a Local government area in Kogi state. The headquarters is based in a Local Government Area of the same name. Okene runs along the A2 highway. It had an area of 328 km² and a population of 320,260 at the 2006 census. The predominant people are the Ebira of central Nigeria and the Yoruba; the local languages are Ebira and Yoruba (Ojo, 2013). It is located on Latitude 07°19'N, 07°32'N and Longitude 05°56'E, 06°48'E of the Greenwich meridian (Adeoye, 2014).
Dekina is a local government area in Kogi State, Nigeria. Its headquarters are in the town of Dekina on the A233 highway in the north of the area at Latitude 05°49'N, 06°40'N and Longitude 07°24'E, 07°41'E. The northeasterly line of equal Latitude and Longitude passes through the southeast of the Local government area. It has an area of 2,461 km² (950 sq mi) and a population of 260,312 at the 2006 census (KMLS 2018)

Table 1.1: Distribution of the population in Kogi State by Local Governments**.**

Name	Population Census 1991	Population Census 2006	Population Projection 2016
Adavi	157,092	217,219	293,200
Ajaokuta	97,904	122,432	165,300
Ankpa	...	266,176	359,300
Bassa	88,496	139,687	188,600
Dekina	177,513	260,968	352,300
Ibaji	...	127,572	172,200
Idah	...	79,755	107,700
Igalamela-Odolu	...	147,048	198,500
Ijumu	66,603	118,593	160,100
Kabba/Bunu	...	144,579	195,200
Kogi	82,483	115,100	155,400
Lokoja	...	196,643	265,400
Mopa-Muro	...	43,760	59,100
Ofu	108,095	191,480	258,500
Ogori/Magogo	...	39,807	53,700
Okehi	146,264	223,574	301,800
Okene	...	325,623	439,500
Olamaboro	104,705	158,490	213,900
Omala	...	107,968	145,700
Yagba East	88,780	147,641	199,300
Yagba West	76,936	139,928	188,900

Source: National Population Commission 1991; 2006 National Bureau of Statistics, 2017

Research Design
The study adopted a cross-sectional survey design. This research design is considered appropriate because of its potentials in covering a broad area of observation using a selected sample of a population to analyze a large population at a given point in time. The cross-sectional survey design is thus appropriate in a study of assessment of spatial accessibility to healthcare and incidence of

maternal mortality which seeks to explore government hospital records of maternal mortality over the past five years (2014 – 2018) based on availability and validity of data.

Sampling Procedure and Sample Size: The sample size of this study was determined using the Krejie and Morgan, (1970) model of sample size determination. The model states that:

$$S = \frac{X^2NP(1-P)}{d^2(N-1) + X^2P(1-P)}$$

Where:

S = Required Sample size
X = Z value (e.g. 1.96 for 95% confidence level)
N = Population Size
P = Population proportion (expressed as decimal) (assumed to be 0.5 (50%)
d = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error

$$S = \frac{1.96^2 \times 28{,}290 \times 0.5(1-0.5)}{0.05^2(28{,}290-1)+1.96^2 \times 0.5(1-0.5)} = 378.78$$

approximately 379

Thus, by the sample determination formula above and the Krejie and Morgan sample table, the sample size obtained is 379 households. The sample respondents were sampled proportionally to the population of each selected Local Government Areas of the State

Techniques of Data Analyses

Data analyses were undertaken as follows; there was a univariate analysis of data to characterize each variable. This includes determining percentages and measures of central tendency where applicable. Tabulation involving frequencies and percentage were employed to analyze the demographic characteristics of the respondents. According to Meekya, (1992) tables and percentages are employable tools in statistics to summarize mass numeric information into simpler terms. Cross tabulation using chi-square were used to portray socio-demographic factors affecting access to quality healthcare. Bar graphs and pie charts were also used to present the results of the study

3.0 RESULTS AND DISCUSSION

3.1 Demographic and Socio-economic Characteristics of Respondents

The socio-economic and demographic characteristics of people are critical to understanding their perception and the respondents understanding spatial accessibility to healthcare facilities and maternal mortality in Kogi State Nigeria. Table 3.1 shows the distribution of respondents' demographic and socio-economic characteristics by local Government Areas. Data for this study was from the spatial accessibility to healthcare and maternal mortality questionnaire (SAHMMQ).

Table 3.1: Percentage Distribution of Respondents' Socio-economic and demographic Characteristics

Items	options	Lokoja Frequency	Percent (100)	Dekina Frequency	Percent (100)	Okene Frequency	Percent (100)	total Frequency	Percent (100)
Age group(years)	15-24	43	26.5	19	14.3	29	34.5	83	21.9
	25-34	58	35.8	57	42.9	39	46.4	160	42.2
	35-44	35	21.6	42	31.6	10	11.9	83	21.9
	45 & above	26	16	15	11.3	6	7.1	53	14
Ethnic group	Bassa	15	9.3	6	4.5	4	4.8	25	6.6
	Ebira	36	22.2	3	2.3	70	83.3	109	28.8
	Okun	31	19.1	3	2.3	2	2.4	36	9.5
	Igala	63	38.9	119	89.5	5	6	187	49.3
	Others	17	10.5	2	1.5	3	3.6	22	5.8
Marital status	Single	10	6.2	7	5.3	9	10.7	62	16.4
	Married	139	85.8	113	85	61	72.6	173	45.6
	Separated/Divorced	0	0	0	0	0	0	74	19.5
	Co-habiting	0	0	0	0	4	4.8	24	6.4
	Widow	13	8	13	9.8	10	11.9	46	12.1
Family type	Monogamy	73	45.1	68	51.1	38	45.2	179	47.2
	Polygamy	89	54.9	65	48.9	46	54.8	200	52.8
Family size	4-Jan	46	28.4	37	27.8	12	14.3	103	27.2
	8-May	35	21.6	35	26.3	30	35.7	92	24.3
	9 & above	81	50	61	45.9	42	50	184	48.5
Religion	Christianity	37	22.8	20	15	16	19	105	27.7
	Traditional	47	29	29	21.8	17	20.2	107	28.2
	Islam	78	48.1	84	63.2	51	60.7	167	44.1
Educational level	No formal	43	23.5	30	22.6	20	23.8	93	24.5
	Primary/Qur'anic	48	29.6	37	27.8	27	32.1	112	29.6
	Secondary	38	23.5	30	22.6	18	21.4	86	22.7
	Post-secondary	19	11.7	17	12.8	10	11.9	46	12.1
	Post graduate	14	8.6	19	14.3	9	10.7	42	11.1
Occupation	Civil service	29	17.9	26	19.5	13	15.5	84	22.2
	Others	38	23.5	39	29.3	20	23.8	55	14.5
	Artisan/Weaving	30	18.5	22	16.5	16	19	60	15.8
	Petty trading	65	40.1	46	34.6	35	41.7	180	47.5
	Total	162	100	133	100	84	100	379	100
Monthly income(N)	10,000& below	21	13	20	15	17	20.2	48	12.7
	10,001-20,000	38	23.5	31	23.3	17	20.2	96	25.3
	20,001-30000	35	21.6	37	27.8	19	22.6	85	22.4
	30,001-40,000	49	30.2	32	24.1	20	23.8	91	24
	40,001& above	19	11.7	13	9.8	11	13.1	59	15.6

Source*: field survey, 2019*

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3.1.1 Age distribution of respondents
A total of 21.9% of the respondents were aged 15-24 years, 42.2% of the total respondents were aged 25-34 years, 21.9% of the total respondents were aged 35-44 years, while 14.0% of the total respondents were aged 45 years and above. The implication of this is that most of the respondents were young and majorly between the ages of 15-24, representing about 42% of the total respondents and this made them essentially adequate for the information on access to healthcare by women in the reproductive age group.

3.1.2 Ethnic composition of respondents
In the study area, 6.6% of the total respondents were Bassa, 28.8% of the total respondents are Ebira, 9.5% of the total respondents are Okun, 49.3% of the total respondents were Igala, while 5.8% of the total respondents were other tribes such as Igbos, Hausas, Igarra, Ishan and Ogori people. The adequate mix of tribes in Lokoja local government is premised on the fact that it is the administrative headquarters of the state and thereby serves as a unifying point across all tribes in the state. However, the result of findings in the study area reveals that the dominant tribe is the Igala of 49.3%. This is also evident in the division of the state into local governments where the Igala tribe inhabit nine of the twenty-one local government areas in Kogi state (KMLS, 2017).

3.1.3 Marital Status of respondents
As indicated in Table 3.1, marital status of the respondents 16.4% of the total respondents were Single, 45.6% of the total respondents were married, 19.5% of the total respondents are separated/divorced, 6.4% of the total respondents were cohabiting, while 12.1% of the total respondents were widows implying that majority of the women (45.6%) were married effectively contributed to the theme of this research.

3.1.4 Family Type of respondents
About 47.2% of the total respondents were monogamous, while 52.8% of the total respondents were polygamous implying that most of the men in marriages in the study area marry more than one wife. Polygamous marriages produce more children as there is some sort of competition among the women. They see fecundity as a sign of feminine prowess and also to gain favor from their husbands thereby putting them at risks of complication and childbirth.

3.1.5 Family Size of respondents
Summarily, 27.2% of the total respondents were in a family size of 1-4, 24.3% of the total respondents were in a family size of 5-8, while 48.5% of the total respondents were in a family size of 9 and above. The implication of this is that majority of the respondents 48.5% have large family sizes that is not less than nine people. The desire to have large families is high among the respondents of this study.

3.1.6 Religion of respondents
This research found that 27.7% of the total respondents were Christians, 28.2% of the total respondents were of traditional religion, while 44.1% of the total respondents were Muslims thus making Islam the dominant religion. The religious beliefs and norms surrounding having a lot of children put the women at a higher level of health risk.

3.1.7 Educational Qualification of respondents
Summarily, about 24.5% of the total respondents had no formal education, 29.6% of the total respondents had primary/Qur'anic school education, 22.7% of the total respondents had secondary school education and 12.1% of the total respondents had Post-secondary, while 11.1% of the total respondents had Post graduate education. The implication of this finding is that a reasonable proportion of the respondents of about 24.5% had no formal education while 29.69% had only primary education. These low literacy level deters women from realizing the enormous health benefits of seeking quality medical care. This was also revealed by Harrison (2017) where he found that widespread ignorance as a result of lack of basic education, in addition to low level of awareness he reiterated relates directly to maternal health. Most of the women under Harrison's study believed that it is only lazy women that will give birth in a health facility. Education is a distant factor which offers the possibility of affecting the magnitude of maternal mortality. As a result of lack of education many women do not know what are the danger signs and effect of prolonged labour therefore they stay in their houses without seeking medical care. Similarly, this corroborates the findings of (Debrouwere *et al.,*2012), that women deprived of education have limited ability to make decisions in the home.

3.1.8 Occupation of respondents
This study has revealed that 22.2% of the respondents are civil servants, 14.5% of the respondents belong in the category of others, 15.8% of the total respondents are into Artisan/Weaving, while 47.5% of the total respondents are into Petty trading. This implies that even though majority of the women are not gainfully employed 47.5% of the respondents rather engage in petty trading to support their families.

3.1.9 Monthly Income of respondents
This study has revealed that in terms of monthly income of respondents 12.7% of the total respondents earn N10,000 and below, 25.3% earn N10,001 – 20,000, 22.4% earn N20,001 – 30,000, 24.0% of the respondents earn N30,001 – 40,000, while 15.6% of the total respondents earn N40,001 and above. In this study about 38% of the respondents earn below N20,000 monthly which equals approximately #666 daily and implies less than $2 per day similar as reported in the world population Datasheet (2008) that about 91% of Nigerians live below $2 per day. Similarly, the USAID report (2016), further reported that close to 60 percent of Nigerians live in extreme poverty, as such, insufficient money to pay for medical expenses serve as a barrier for treatment.

3.2 Respondents' place of delivery

Table 3.2: Percentage distribution of Respondents' place of delivery

Question	Options	Lokoja		Dekina		Okene		Kogi State	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Where did you deliver during your last pregnancy?	Traditional Birth Attendant	27	16.7	24	18	21	25	54	14.2
	Health care facility	53	32.7	60	45.1	31	36.9	138	36.4
	At home	44	27.2	28	21.1	21	25	123	32.5
	Spiritual home	38	23.5	21	15.8	11	13.1	64	16.9

Source*: Field survey, 2019*

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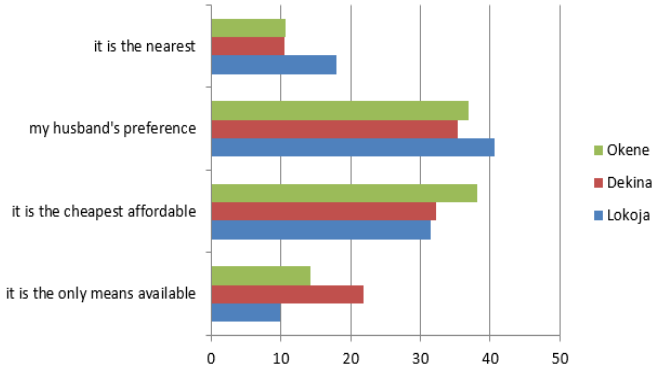
In the study area, 14.2% of the total respondents delivered at the traditional birth attendant. In the same vein, 36.4% of the respondents delivered at Health care facility, while 32.5% of the total respondents delivered at home, and 16.9% of the total respondents delivered at Spiritual home. This implies that there is still the need to sensitize the women in Kogi state of the advantages and the need to deliver in a skilled healthcare facility so as to reduce the risks of pregnancy and childbirth to the barest minimum.

Figure 3.2: Reason for Choice of respondents' place of delivery



Source*: Field Survey 2019*

In this study, 12.4% of the respondents delivered at the place because it is the only means available, 36.9% of the total respondents delivered at the place because it is the cheapest affordable, 35.4% of the total respondents delivered at the place because it is their husband's preference, while 15.3% of the total respondents delivered at the place because it is the nearest. This agrees with the findings of Olubunmi *et al* (2015), which identified the stiff cultural and religious set up of male domination especially in African societies, where most women require the consent of their husbands before going to hospitals for child birth and in cases where the husbands are not available to consent, such women if faced with complications during child birth may not be taken to hospital and may end up bleeding to death or dying from complications of the pregnancy.

3.3 Respondents Perception on Health taking Decision

Table 3.3: Respondents' Perception on Health Taking Decision

Item	Option	Lokoja		Dekina		Okene		Kogi State	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
On health matters	Husband	81	50	76	57.1	52	61.9	209	55.1
	Wife	33	20.4	23	17.3	11	13.1	67	17.7
	Husband &wife	38	23.5	25	18.8	15	17.9	78	20.6
	Relative	10	6.1	9	6.8	6	7.1	25	6.6

Source*: field survey, 2019*

Decision to seek maternal health care is very complex and distressing and a lot of women have died because decisions had not been taken promptly on whether she should go to a hospital or not. As revealed in Table 3.3, 55.1% of the total respondents agreed that the husband is the decision maker on health matters, 17.7% of the total respondents agreed that the wife is the decision maker, 20.6% of the total respondents agreed on husband and wife, while 6.6% of the total respondents agreed on relative. These findings agree with the findings of the UNFPA (2001) as cited by Galadanci et al., 2010 and Muoghalu, 2010 that in developing countries, women's decision in relation to health treatment (*especially among the poor*) are made by the husband which most times doubles as the household head and as such, unless support comes from the husband or his family, women often tend not to seek treatment. In this study, a patriarchal societal way of life is evident where even in case of obstetric emergencies, some women still have to seek the consent of their husbands first, who may be far away during such moments thereby poising risks to their health.

3.4 Respondents Description of the Distance Health Facility

Table 3.4: Respondents Description of the Distance Health Facilities

Items	Options	Lokoja		Dekina		Okene		Kogi State	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Orthodox Healthcare facilities	1-2 km (1)	12	7.4	14	10.5	10	11.9	36	9.5
	2-3km (2)	45	27.8	22	16.5	19	22.6	86	22.7
	3-4km (3)	41	25.3	26	19.5	19	22.6	86	22.7
	4-5km (4)	16	9.9	30	22.6	12	14.3	58	15.3
	5+km (5)	48	29.6	41	30.8	24	28.6	113	29.8

Source: field survey, 2019

About 12.1% of the total respondents agreed that the distance of their house to a functional healthcare center is within 1-2km, 27.2% of the total respondents agreed that the distance is within 2-3km, 19.5% of the total respondents agreed that the distance is within 3-4km, 15.3% of the total respondents agreed that the distance is within 4-5km, while 29.8% of the total respondents agreed that the distance is within 5+km.This implies that the distance of the respondents is majorly between 5km and above which makes some women to either seek for other alternatives such as traditional birth homes or even deliver on transit

3.5 Means of Transportation during Emergencies

Table 3.5: Respondents Means of Transportation during Emergencies

Items	Option	Lokoja		Dekina		Okene		Kogi State	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
When the need arises, which of the following means of transportation do you take to health facility?	Horse/Donkey	21	13	15	11.3	11	13.1	47	12.4
	Bicycle	38	23.5	38	28.6	15	17.9	91	24
	Motorcycle	41	25.3	36	27.1	22	26.2	99	26.1
	Motorcar	40	24.7	33	24.8	18	21.4	91	24
	By foot	22	13.6	11	8.3	18	21.4	51	13.5

Source*: field survey, 2019*

Table 3.5 shows the result of research survey on the item on which means of transportation do you take to health facility when the need arose. This research found that, 12.4% of the respondents makes use of horse/donkey as a means of transportation to health facility, 24.0% of the total respondents makes use of bicycle as a means of transportation to health facility, 26.1% of the total respondents makes use of motorcycle as a means of transportation to health facility, 24.0% of the total respondents makes use of motorcar as a means of transportation to health facility, while 13.5% of the total respondents makes use of their foot as a means of transportation to health facility. Transportation plays a major role in accessing healthcare facilities. This implies that predominant means of

transportation in the study area in times of emergencies is the motorcycle.

3.6 Respondents' Assessment on Access to Health Care

Table 3.6: Respondents' assessment on Access to Health Care

Question	Options	Lokoja		Dekina		Okene		Kogi State	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Please rate the extent of the healthcare you received in your last pregnancy.	Poor	24	14.8	21	15.8	17	20.2	62	16.4
	Fair	66	40.7	40	30.1	29	34.5	135	35.6
	Satisfactory	47	29	48	36.1	24	28.6	119	31.4
	Very good	25	15.4	24	18	14	16.7	63	16.6

Source: *Field Survey 2019*

Table 3.6 portrays results of respondents when made to rate the extent of the healthcare they received in their last pregnancy. It revealed that 16.4% of the respondents in the study area rated the extent of the healthcare they received in their last pregnancy as poor, 35.6% of the total respondents rated the extent of the healthcare they received in their last pregnancy as fair, 31.4% of the total respondents rated the extent of the healthcare they received in their last pregnancy as satisfactory, 16.6% of the total respondents rated the extent of the healthcare they received in their last pregnancy as very good. This results indicate that majority of the respondent 35.6% rated the extent of healthcare as fair because they see rooms for improvement in healthcare delivery in hospitals in the study area. During in-depth interview with healthcare workers, they were requested to suggest ways in which quality healthcare can be provided by concerned authorities. The responses of the healthcare workers was coded, transcribed and loaded on the NVIVO software for analysis the result is presented in a word output.

Figure 3.3 shows the Nvivo word output of in-depth interview with health workers on ways in which quality healthcare can be provided.

Figure 3.3: Nvivo word output on ways in which quality healthcare can be provided
Source: *Field Survey 2019*

The word output of the interview with healthcare personnel were transcribed and analyzed using Nvivo as shown in Figure 3.3 which portrays the suggestions of medical personnel on ways in which quality healthcare can be provided. The main themes are through manpower interventions, training and retraining of healthcare personnel, improved obstetric care, and improved facilities among others as shown in the word output.

4.0 Conclusion and Recommendation

The following conclusions were drawn from the study:

Poverty is identified as one of the major barriers to accessing maternal health service by women in HC facilities. Majority of women of child bearing age in the study area are living below poverty line. They had low degrees of access maternal healthcare service in HC facility because they had no money to pay for transportation to and fro, drugs and medical service at the facility. This explains why some of the women preferred to deliver at a traditional birth attendant center or at home because of the cost of accessing orthodox healthcare.

One factor that is basic is the high illiteracy level among women which is responsible for their limited access to maternal healthcare service in Health Care facility. It was discovered that the high illiteracy level among women in the study area have been responsible for their limited access to maternal healthcare service in Health Care facility. The study found that the lack of awareness on reproductive health education coupled with high illiteracy level has made it difficult for some women in this group to recognize life threatening complications during pregnancy and childbirth which would enable them access timely maternal healthcare service in Healthcare facility.

To achieve any significant improvement in access to maternal healthcare services and reduction in maternal mortality rate in Kogi state, series of policies must be put in place to cater for some constraints challenging women's health in the study area. Based on the findings of the study, the following recommendations are made:

Education is a strong tool that empowers women to improve their access to maternal health service during pregnancy and childbirth. Women's educational status in the study area is relatively low. There is the growing need for improvement of women's educational status even through adult literacy programmes is strongly recommended because if a woman is educated she will be more informed on matters relating to her health.

The study recommends that there should be an advocacy for women empowerment with a view to an effective poverty alleviation by introducing strategies put in place by government and their partners at the local government, State and Federal levels aimed at reducing poverty among women of reproductive age in the study area through skills acquisition and provision of soft loans. This will empower women economically especially those with low socio-economic status and consequently enhancing their incentives to accessing quality maternal health services in the study area.

This study recommends reactivation of primary healthcare centers by employing adequate skilled personnel, building befitting structures, purchase medical equipment and stocking them up on drugs so as to bring quality healthcare delivery closer to the people since the primary healthcare centers are the closest to the people. There should be employment and deployment of enough qualified medical personnel with specialization in obstetrics care to Healthcare facilities across the state especially those located in rural areas. Government should provide special incentives to health workers deployed to serve in rural areas. This will encourage most of them to accept posting to Primary Healthcare facilities located in rural areas; hence, solving the problems of inadequate personnel and delays in administering treatment to women of reproductive age, currently being experienced in the study area. This measure will help to provide timely and qualitative maternal healthcare services to women living in rural communities, in order to minimize the occurrence of maternal mortality.

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