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EXAMINATION OF THE FACTORS AFFECTING THE USE OF OBSTETRIC CARE SERVICES, IN GOMBE, SHONGOM AND NAFADA LOCAL GOVERNMENT AREAS OF GOMBE STATE, NORTHEASTERN NIGERIA

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Abstract

Only 51% of women in the North East receive anti-natal care from skilled providers, and only 21% deliver in health facilities. The factors that contributes to this include lack of access and poor utilization of maternal healthcare services. Using both quantitative and qualitative data, the aim of this research is to examine the factors affecting the use of Obstetric care services in Gombe State. The aim was achieved by interviewing 600 women of childbearing ages 15-49 in 2014 using a semi-structured questionnaire schedule. Multi stage sampling procedure was adopted in the study and three Local Government Areas were purposively selected. However, all respondents were selected using availability sampling. Qualitative data was generated from in-depth interviews with key informants from the community, LGA and Ministry of Health. The major findings of the study show that 61% of women delivered in health facilities with great variations in the three areas (80% in Gombe, 54% in Shongom and 29% in Nafada). Chi square test was used to test which of the factors is the most important in determining the use of obstetric care services. The most important factors determining the use of obstetric care services using chi square test are: - Educational status, Travel distance to health facilities from home, Who makes the decision to use health facilities, income, means of transportation to health facilities, cost of delivery, who makes the decision on the number of children to have. Other equally important factors are ignorance, cultural and traditional reasons. The study recommended that women's education should be encouraged and improved through free and compulsory education, so their sources of income through various skill acquisition schemes especially in the rural areas. These will certainly improve their decision making process which will eventually lead to increase in usage of obstetric care services. In addition, religious and traditional leaders should be engaged by the government to create awareness and educate people especially in Nafada on the importance of Maternal Health care services, while areas like Shongom should be provided with more public health services.

Key words: Care**,** Examination, North-eastern, Obstetric, Services

1. Introduction

Obstetric Care is the professional medical and surgical care for pregnant women with a special focus on the delivery and immediate postpartum period. The skills and the performance of the person providing assistance during delivery determines whether complications are properly managed and hygiene practises are observed. The expectation is that if a complication arises during delivery a skilled health worker can

manage the complication or refer the mother to the next level.

Maternal and prenatal health have emerged as some of the most important issues that determine global and national wellbeing. This is because every individual, family and the community are at some point intimately involved with issues that affect pregnancy and the success of childbirth (WHO 2006). Despite the honour bestowed on womanhood and the appreciation of the birth of a new born baby, pregnancy and childbirth are still considered a serious risk in some developing countries especially Nigeria if maternal healthcare services are not fully utilised.

A continuing challenge to women's health is the huge number of women who die during pregnancy and childbirth. The African saying therefore, which describes the survival chances of pregnant women as- "A foot in the grave and or a foot on the earth" is a very apt depiction of the menace of maternal mortality in the developing world (Adamu 2003 and Mathews 2007). Maternal Mortality is the death of women while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to, or aggravated by the pregnancy or its management, but not from accidental or incidental causes. (Adamu 2003) Maternal Mortality Ratio in Nigeria ranges from 500-652 per 100,000 live births, which is high despite efforts to reduce it.

It is now becoming more of a cliché to assert that worldwide, over a quarter of a million women die every year as a result of complications from pregnancy and childbirth; to the degree that it is no longer shocking to be confronted with the facts that about 99% of these deaths still take place in the developing countries. (McAlister and Basket, 2006). For each woman who succumbs to maternal death, many more will suffer injuries, infections, and disabilities brought about by complications such as obstetric fistula, uttering scarring, reproductive tract infections as well as infertility. The difference in maternal mortality between the developed and the developing world is thus greater than any other developmental indicator (World Bank 2003).Though it has been generally acknowledged that many of the obstetric causes of maternal mortality (e.g., Pregnancy-induced hypertension (including eclampsia), haemorrhage, obstructed labour, puerperal infections, unsafe abortion, and ruptured uterus), are preventable with adequate maternal care and obstetrical services, other causes include ectopic pregnancy, embolism, and anaesthesia-related risks. Conditions such as anaemia, diabetes, malaria, sexually transmitted infections (STIs), and others can also increase the risk for complications during pregnancy and childbirth and thus are indirect causes of maternal mortality and morbidity.

The northeast region of Nigeria has disturbing figures of maternal health indicators. For example, the NDHS 2013 report Page 128 shows that only 51% of women in the region receive anti-natal care from skilled providers, compared to 90% in the south-south and southeast zones. Also in terms of delivery at health facilities (hospitals, clinics etc), only 21% have access in the region, compared to 66% and 76% in the southeast and southwest respectively (NDHS 2013 Page 135). Women in rural areas are more likely to deliver at home (77%) than their urban counterparts (37%). The North West region has the highest

proportion of deliveries at home (88%), followed closely by the North East with (79%). The South East has the lowest proportion of such deliveries (22%) followed closely by the South West (24%). The proportion of birth assisted by a skilled provider has only slightly improved over the last 15 years, (35% in 2003, 39% in 2008, 38% in 2013 and 43% in 2018).The trend is similar in other indicators of reproductive health.

There are also other non-medical predisposing factors affecting maternal mortality and morbidity such as: access to health services, which is a complicated concept covering many different issues including, whether adequate facilities exist (adequate supplies and personnel, good quality of care, required equipment), and also if the people can reach the service given (cost, distance, knowledge) transportation availability, and infrastructure which all contribute to maternal deaths and are central to reducing maternal morbidity and mortality. This research will focus on some of these factors.

In order to attain the Sustainable Development Goal of reducing Maternal Mortality and morbidity, women's knowledge and access to good quality healthcare embedded in human rights are two elements that will contribute significantly towards this goal and is one of the major issues this research is trying to address.

The aim of this research is to examine the factors affecting the use of Obstetric care services in Gombe,,Shongom,and Nafada local government areas of Gombe State. The aim would be achieved by interviewing women of childbearing ages 15-49 to know whether there are Maternal healthcare facilities in their wards or not, to find out whether they deliver in the health facilities or not? In addition, to find out the predisposing factors that either encourage or discourage them from giving birth in health facilities.

2. Study area and Methodology

2.1 Study Area.

2.1.1 Gombe LGA

It is located approximately in about centre of Gombe State and lies between latitude 10^0 8^1 and 11^0 23^1N and longitude 11^0 20^1 and 11^0 24^1E (Ministry of Land and Survey Gombe State, 2003). Gombe LGA/metropolis is bounded by Kwami Local Government Area in the North, *Yamaltu-Deba* in the East and almost surrounded by Akko Local Government Area in the South- East and South- west. Gombe LGA is linked to other regions and states by roads like Gombe-Biu–Maiduguri, Gombe-*Bauchi*, Gombe-*Dukku-Kano* and Gombe-*Bajoga-Potiskum* roads. Gombe metropolis is made up of eleven (11) political wards namely; *Ajiya, Bajoga, Bolari-east, Bolari-West, Herwagana, Jekadafari, Dawaki, Kumbia-Kumbia, Nassarawo, Pantami, and Sham*aki. It is also divided into many different residential quarters. Gombe LGA as at 2014 had a total of 47 health facilities comprising of two (2) Primary Health Care Centres, thirty two (32) health clinics, nine (9) maternities, two (2) dispensaries, one (1) Federal University Teaching Hospital and one (1) Specialist/General Hospital (GSMH 2015)

2.1.2 Nafada Local Government

Nafada Local Government is located at the northern fringes of Gombe State at the border of Gombe and Yobe State, bordering Funakaye to the South-East and Dukku to the South-West (Fig 1) and lies between latitude 11^0 5' 45" N and longitude 11^0 20' 00" E. The Major Ethnic groups found in this area include; *Fulani, Hausa, Karekare and Bolewa*. The area is predominantly Muslims with very few Christians, with the tradition reflecting the two religions. Farming, animal rearing, fishing and a bit of commerce are the occupations in this local government area. There are nine (9) political wards in Nafada namely; *Birin- Bolewa, Birin-Fulani, Barwo/Nassarawo, Barwo/Winde, Gudukku, Jigawa, Nafada- East, Nafada-West and Nafada Central*. There are 24 Health Facilities made up of 1 General hospital, 6 primary health Centers, 3 clinics, 4 Maternity Clinics, 1cottage hospital and 9 dispensaries as at 2014. (GSMH 2015)

2.1.3 Shongom Local Government Area.

Shongom LGA is located at the Southern Fringes of Gombe State bordering Taraba State to the South and Kaltungo LGA to the North East, Billiri to the West and Alkaleri local Government in Bauchi State to the South-West (fig 1) and lies between latitude 09^0 47' 48.3" N and longitude 11^0 15' 33.2" E.. The ethnic groups found here are; *Wurkun, Jukun, Bangunji, Tangale, Burak, kushi, Loh, Pero, Fulani.* The religion here is predominantly Christianity. Traditionalists and very few Muslims are also found; hence, the culture reflects these religions. The main occupation of the people is predominantly farming. There are 45 Health facilities comprising of 3 primary health centers (GSMH 2015)

5 health posts, 19 health clinics, and 18 Maternity Clinics and 1 nursing home. There are 10 political wards in Shongom namely; Bagunji, Boh, Burak, Filiya, Gundale, Lapan, Lalaipido, Gwandum, Kullishin, and Kushi

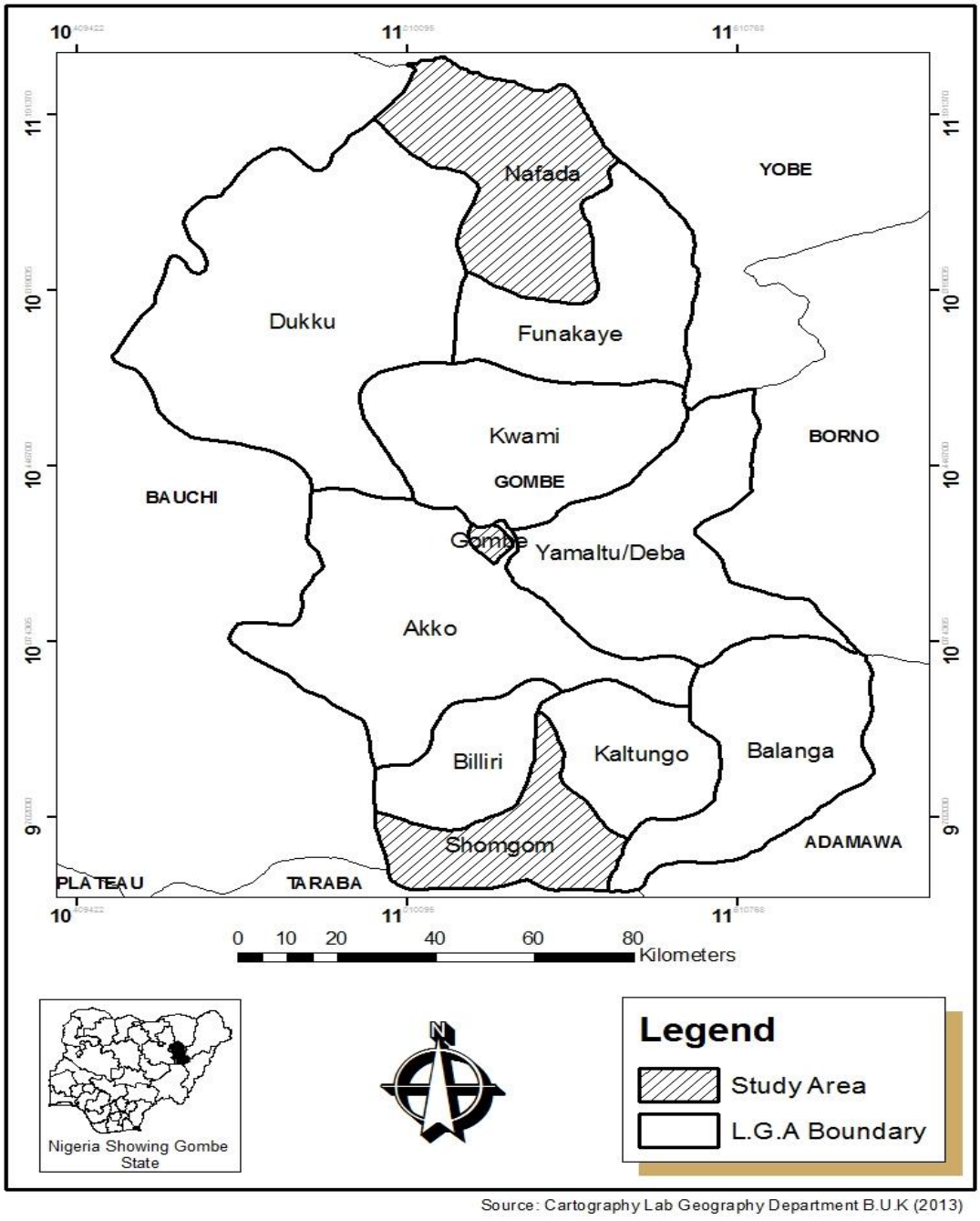

Figure 1: Selected Study Areas in Gombe State (Gombe, Nafada and Shongom LGA's).

2.1.4 List of Health Facilities in the Study Areas and their Status

Health facilities and their statuses in each of the selected LGA are shown in Tables 1, 2 and 3 for Gombe, Nafada and Shongom LGAs respectively.

Table 1: GOMBE LGA

Types of Health Facility	Public	Private	Total
Federal Medical Center	1	-	1
General Hospitals	1	-	1
Primary Health Centers (PHC)	2	-	2
Clinics	5	27	32
Cottage Hospital	Nil	-	0
Maternity Clinics	7	2	9
Dispensaries	2	-	2
Total	18	29	47

Source: Gombe State Ministry of Health 2014

Table 2: NAFADA LGA

Types of Health Facility	Public	Private	Total
Medical Centers	-	-	nil
General Hospitals	1	-	1
Primary Health Centers (PHC)	6	-	6
Clinics	3	-	3
Maternity Clinics	4	-	4
Cottage Hospital	1	-	1
Dispensaries	9	-	9
Total	24	-	24

Source: Gombe State Ministry of Health 2014

Table 3: SHONGOM LGA

Types of Health Facility	Public	Private	Total
Cottage Hospital	-	-	-
General Hospitals	-	-	-
Primary Health Centers (PHC)	3	-	3
Clinics	15	4	19
Maternity Clinics	16	1	17
Nursing Homes/ Health posts	6	-	6
Dispensaries	-	-	-
TOTAL	40	5	45

Source: Gombe State Ministry of Health, 2014

3. Methodology

Semi structured interview schedule was administered to 600 married women of childbearing ages 15-49 in three local government areas of the state in the year 2014. The study collected primary data that covered three LGAs out of the 11 LGAs in the state in the year 2014. These three LGAs account for 23 per cent of the State's population. The LGAs are *Gombe* at the centre, *Nafada* at the extreme north and *Shongom* at the extreme south of the State.

Multi-stage sampling technique was adopted for this study. Firstly, three Local government areas were chosen purposively to include both homogeneous and heterogeneous population both from rural and urban settings as well as to accommodate various socio-cultural settings in the State.

Secondly 600 respondents were selected, 300 in *Gombe* LGA because it has a larger population than the other local government areas being an urban centre and the state capital, and 150 respondents each in the two rural LGAs. Eligibility was based on age of women (15-49) and one woman per each sampled household was interviewed. There are thirty-one wards in the three sampled LGAs. (*Gombe 11, Nafada 10, and Shongom* 10) and out of these wards 3 wards comprising of high (*Dawaki)* medium, (*Bajoga)* and low *Pantami*) residential areas were randomly selected for sampling in *Gombe* LGA, a total of 100 women of reproductive age were selected for sampling in each of the wards making a total of 300 women for the three wards. They were approximately 56783 women of reproductive age in *Gombe* LGA as at 2013, the three wards sampled have a population of around 15486 women of reproductive age, systematic sampling method was used in sampling the respondents, sampling interval of 52 was therefore used, and hence every 52 woman of reproductive age was then interviewed in her household.

In *Shongom t*hree (3) wards were randomly selected, out of the 10 wards in the LGA and they are:-*Boh, Bangunji and Filiya*. Fifty women were interviewed in each of the wards making 150 for the three wards. There were approximately 35201 women of reproductive age as at 2013 in *Shongom*, the three wards sampled have a population of about 10560 women of reproductive age, systematic sampling method was used to sample the respondents, and a sampling interval of 70 was used, hence every 70 woman of reproductive age was then interviewed in her household.

In *Nafada* three wards (3) were also randomly selected out of the 10 wards in the LGA and they are: *Nafada* East, *Birin Bolewa*, and *Jigawa*. Fifty women were interviewed in each of the wards making 150 for the three wards. There were approximately 28910 women of reproductive age as at 2013, the three wards sampled have a population of about 8673 women of reproductive age, systematic sampling method was used to sample the respondents, and a sampling interval of 58 was used, hence every 58 woman of reproductive age was then interviewed in her household.

In-depth Interview was also conducted with other stakeholders such as: The permanent secretary and/or Director RH services in Gombe state Ministry of Health, the coordinators/Reproductive Health workers in the sampled health facilities, Nongovernmental Organizations (NGOs) such as Planned Parenthood Federation (PPFN) and Federation of Muslim Women Association of Nigeria (FOMWAN), Heads of health department in the sampled local government areas, community and religious leaders such as one emir/chief, two imams and pastors from each sampled LGA on their views and perceptions of the MHC Services offered and their suggestions on how to improve the system. At least, 10 different sets of questions were designed to serve as the interview guideline for the at least 15 sets of interviewees.

4. Data Analysis

The data generated from the semi structured questionnaires Schedule (Quantitative Data) were coded and manually entered into, and analyzed using SPSS 20 version software in line with the objectives of this study. Simple descriptive statistics such as percentages and proportions were used in depicting the results and findings. In addition, chi-square test was used to test for relationship between access and utilization in one hand and socio-economic and demographic characteristics of the respondents on the other hand. Chi square Test or goodness of fit test was used to test which of the factors was significant in influencing the utilization of obstetric care services in the study area. The chi-square statistic is a non-parametric (distribution free) tool designed to analyze group differences when the dependent variable is measured at a normal level. Like all non-parametric statistics, the chi-square is robust with respect to the distribution of the data.

The qualitative data (In-depth interview) was analyzed after transcribing the interviews and translating them to English because some of the interviews were conducted in Hausa Language. The analysis of qualitative data involved simple narrative techniques through classifying the responses like high, medium and low in term of preference, satisfaction or choices..

5. Results and Discussion.

This section attempts to provide answers to what factors determine the utilization of Obstetric care Services in Gombe State using chi square test to see whether there are significant differences in utilization between different groups of women with different characteristics such as: who makes the decision to utilize the health facilities, educational status of the women, their income, who makes the decision on the number of children to have, and the number of children delivered.

In addition, the number of women that deliver in the health facilities and at home, the travel distance to health facilities, means of transportation to health facilities, and cost of delivery in healthcare facilities and how these factors have affected utilization of obstetric care were evaluated.

5.1 Determinants of place of delivery (Obstetric Care)

Table 4 depicts places of delivery in Gombe, Nafada and shongom LGAs. About two thirds (61%) of the respondents in the study area in Table 4 delivered at health care facilities. However there are a lot of differences between the Urban and rural areas, more women in Gombe gave birth in health facilities,(80%) when compared with *Shongom* with (54%) and *Nafada* has the least number of women giving birth in health facilities with (29%) . This finding agrees with the study of Yar'zever et al (2014) conducted in Kano which states that 61% of the women in the rural areas delivered at home, compared with 30% in Urban areas. Similarly, the worrisome situation is also reflected in the NDHS 2013 which states that women who deliver at home continues to be in the increase in Nigeria from 46.8% in 1999, to 62.3% in 2003, 63.5% in 2008, to over 60% in 2013. Adamu et al (2003) reported that 60 per cent of maternal deaths take place during childbirth and the immediate postpartum period, with 50 per cent of these deaths occurring within the first 24 hours of delivery in Kano Nigeria.

Therefore even for some women who deliver with skilled attendance the quality of care is often low. Women need special care during labour, births and the few hours after delivery. Assistance during childbirth is an important variable influencing the birth outcome and the mother's and infant's health. The skills and performance of the person providing assistance during delivery determines whether complications are properly managed and hygienic practices are observed.

Table 4. Place of Last Delivery

		LOCAL GOVERNMENT							
		Shongom		**Gombe**		**Nafada**		**TOTAL**	
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
PLACE OF DELIVERY	At home Alone	34	22.7	32	10.7	61	40.7	127	21.2
	AT home with an assistant	26	17.3	12	4.0	43	28.7	81	13.5
	At home with a health worker	3	2.0	12	4.0	2	1.3	17	2.8
	At a healthcare facility	81	54.0	241	80.3	43	28.7	365	60.8
	No response	6	4.0	3	1.0	1	.7	10	1.7
TOTAL		**150**	**100**	**300**	**100**	**150**	**100**	**600**	**100**

Source Fieldwork 2014

The presence of skilled birth attendants at all births is regarded as probably the single most critical intervention for reducing pregnancy related deaths and disabilities (Bell, Curtis and Alayon, 2003; and Mpembi et al, 2007). For this reason, the proportion of births attended by a skilled health professional is currently being used as one of the indicators of monitoring progress in the achievement of MDG 5.

As reported in Table 5, the least delivery in health facilities was among women with no education, as opposed to those with tertiary education. This is the single most important factor determining delivery in health facilities in the study area; the difference is very much with the figures more than double of the women with no education.

This study agrees with a WHO (2005) study in Kano, which showed that mother's education was one of the most powerful determinants of access to skilled assistance during delivery. While 60% of the women with no education relied on unskilled assistance, just 9% of women with higher education had no skilled assistance. So also Yarzever et al 2013 found out that there was a close relationship between education and usage of obstretric care services.This is consistent with findings elsewhere (Sunil, Rajaram and Zotarreli, 2006; Hounton et al, 2008; Simkhada et al 2008; Stekelenburg, et al 2008). Educated women have higher autonomy to make decisions on the quality of care they receive. Uneducated women are less likely to seek the help of professional health services because they are probably less aware of what is available, and probably find the culture of health services more alienating and frightening.

About two thirds of all maternal deaths occurred in women who were illiterate. Women's social status, self-image, and decision-making powers may all be increased through education, which may be key in reducing their risk of maternal death.

Table 5: Educational Status in Relation to Place of Delivery

Educational status	Place of Delivery				
	At home alone	At home with an assistance	At home with health worker	At health care facility	Total
Shongom N=144					
No schooling	29.4	23.1	33.3	21.0	23.6
Qur'anic	2.9	0.0	0.0	13.6	8.3
Adult literacy	5.9	0.0	0.0	2.5	2.8
Primary incomplete	8.8	11.5	0.0	8.6	9.0
primary complete	23.5	30.3	33.3	22.2	24.3
Secondary incomplete	11.8	23.1	0.0	11.1	13.2
Secondary complete	14.7	3.8	33.3	16.0	13.9
Tertiary	2.9	7.7	0.0	4.9	4.9
Total	100.0	100.0	100.0	100.0	100.0
Gombe N=297					
No schooling	31.3	8.3	0.0	7.1	9.4
Qur'anic	56.3	50.0	33.3	10.8	18.2
Adult literacy	0.0	0.0	0.0	1.7	1.3
Primary incomplete	0.0	0.0	0.0	1.2	1.0
primary complete	6.3	8.3	8.3	12.0	11.1
Secondary incomplete	0.0	0.0	8.3	5.0	4.4
Secondary complete	3.1	16.7	25.0	27.8	24.6
Tertiary	3.1	16.7	25.0	34.4	30.0
Total	100.0	100.0	100.0	100.0	100.0
Nafada N=149					
No schooling	47.5	39.5	50.0	27.9	39.6
Qur'anic	34.4	46.5	2.3	27.9	36.2
Adult literacy	1.6	2.3	0.0	2.3	2.0
Primary incomplete	4.9	9.3	0.0	16.3	9.4
primary complete	3.3	2.3	0.0	9.3	4.7
Secondary incomplete	0.0	0.0	0.0	7.0	2.0
Secondary complete	3.3	0.0	0.0	4.7	2.7
Tertiary	4.9	0.0	0.0	4.7	3.4
Total	100.0	100.0	100.0	100.0	100.0
Pearson Chi-Square = 120.961				***P-Value = .000***	

Source: Fieldwork 2014

Educational status is highly associated with health seeking behaviour in pregnancy and delivery. The chi square test result in Table 5 shows that there are very great differences in hospital deliveries among women with different levels of education with a very high

figure of 120.96. As women's education increases, the more the likelihood that, they will deliver in the health facility.

Out of the 494 women that live less than 30 minutes away from the closest health facility in table 3, 336 delivered in a health facility, that is 68%, and only 29% of the women did not deliver in health facilities. Also 55% of the women in *Shongom* and 100% of women in *Nafada t*hat live 1-2hrs away from the nearest health facility delivered at home, so the closer women live to health facilities the better their chances of delivering in health facilities.

Table 6: Place of Delivery in Relation to Travel Distance of Health Facilities from Home

Distance to health facilities from home	Place of Delivery At home alone	At home with an assistance	At home with health worker	At health care facility	Total
Shongom N = 144					
15 minute	24.1	15.2	2.5	58.2	100.0
30 minute	20.7	10.3	3.4	65.5	100.0
1 hour	50.0	0.0	0.0	50.0	100.0
1-2 hours	23.5	32.4	0.0	44.1	100.0
3-4 hours	0.0	0.0	0.0	0.0	0.0
Total	23.6	18.1	2.1	56.3	100
Nafada N= 149					
15 minute	8.6	28.6	0.0	42.9	100.0
30 minute	25	33.8	2.9	38.2	100.0
1 hour	50.0	0.0	0.0	50.0	100.0
1-2 hours	76.2	23.8	0.0	0.0	100.0
3-4 hours	50.0	0.0	0.0	50.0	100.0
Total	40.9	28.9	1.3	28.9	100
Gombe N = 297					
15 minute	11.2	2.8	3.7	82.3	100
30 minute	11.8	5.9	4.4	77.9	100
1 hour	0.0	16.7	8.3	75.0	100
1-2 hours	0.0	0.0	0.0	0.0	0.0
3-4 hours	0.0	0.0	0.0	100.0	100
Total	10.8	4.0	12.0	81.1	100
T otal	21.5	13.7	2.9	61.9	100.0
	Pearson Chi-Square = 91.350			***P-Value = .000***	

Source: Field Work 2014

A higher percentage of women in the rural areas do not live close to health facilities 28% in *Nafada* and 22% in *Shongom* have to travel on foot for between 1-2 hours before reaching the closest health facility, while in Gombe only 4% have to travel on foot for one hour

to reach the closest health facility, this shows that women in urban areas have more access to health facilities than their counterparts in Distance and transport issues in rural areas are highly significant factors affecting women's access to health services, especially emergency care. Even if women do attempt to get to the nearest health facility, they may arrive too late for their lives to be saved because of poor roads and lack of adequate transportation. Delays may also occur in referral from one health facility to another. In most rural areas in Africa, one in three women lives more than five kilometres away from the nearest health facility (NDHS 2008), this agrees with the findings in this study that nearly one third of the women in the rural area that is *Nafada* in particular live far away from a health facility. Shehu (1992) argues that distance to hospital is a major deterrent in hospital attendance and delivery, having found that distance accounted for 42.3% of maternal deaths in *Sokoto* State.

The chi square test result in Table 6 shows that there is a great difference in access between women who live close to health facilities and those who live far away when it comes to delivery in health facilities, with a very high figure of 91.35.This is because the rural areas because they live close to health facilities and can reach the health facilities easily than those in the rural areas.

70% of the women that live close to health facilities (less than 30 minutes away) delivered in health facilities, whereas for example all the women in *Nafada* that live (1-2 hours away) from the nearest MHC facility delivered at home.

In Table 7 the women that have the highest number of deliveries in health facilities are those that make the decision together on making use of health facilities that is both the husband and the wife, while the women with the least deliveries in health facilities are those whose relatives make the decision for them to go to the health facility.

The chi square test result in Table 7 shows that there are great differences in utilization rates depending on who makes women take the decision to utilize health facilities, with a high figure of 65.99. The likelihood of women delivering in health facilities increases, when both the husband and the wife make the decision together on the utilization of health facilities, instead of only when one of them makes the decision.

Table 7: Who makes the Decision to Utilize Health Care Facilities in Relation to Place of Delivery?

Who makes the Decision to utilize health facilities	Place of Delivery														
	Shongom N = 144					**Gombe N = 297**					**Nafada N = 149**				
	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**
My self	23.5	15.4	33.3	17.3	**18.8**	12.5	8.3	0.0	6.2	**6.7**	3.3	9.3	0.0	9.3	**6.7**
My husband	41.2	42.3	66.7	46.9	**45.1**	43.8	33.3	25.0	35.7	**36.0**	83.6	79.1	100.0	67.4	**77.9**
Both of us	31.4	30.8	0.0	30.9	**30.6**	37.5	58.3	58.3	55.6	**53.9**	8.2	9.3	0.0	20.9	**12.1**
Relatives	2.9	11.5	0.0	4.9	**5.6**	6.3	0.0	8.3	0.0	**0.3**	4.9	2.3	0.0	2.3	**3.4**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Pearson Chi-Square = 65.996						***P-Value = .000***									

Source: Fieldwork 2014

In Table 8 women with the least delivery in health facilities earn below 1000 naira, while all the women earning above 50000 naira monthly delivered in health facilities, as income increases, so also does the probability of women delivering in health facilities. The chi square test result in Table 8 shows that there are great differences in hospital deliveries between women with different incomes, with a high value of 55.14. The higher the income of the women, the more likelihood that she will deliver in the health facility. The chi square test result in Table 9 shows that, there are great differences in access to hospital deliveries, between women who use different means of transportation to the health facility, with a high value of 50.68. The more the likelihood that a woman will deliver in the health facility, if she uses a fast means of transportation (car), to the health facility. 90% of women that went to the hospital on foot delivered at home in *Nafada*, 56% in *Gombe* and 71% in *Shongom.* It is interesting to note that while all the women in *Nafada* that use cars as there means of transportation delivered in health facilities, the percentage for *Gombe* is 31% and for *Shongom* only 2.5%. In Shongom faster means of transportation did not encourage women to deliver in health facilities, because 70% of women that went to the hospital on foot delivered in health facilities.

Table 8: Income per Month in Relation to Place of Delivery

Income (Monthly)	Place of Delivery														
	Shongom N = 144					**Gombe N = 297**					**Nafada N = 149**				
	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**	Home alone	Home with an assistance	Home with health worker	Health care facility	**Total**
Below N1000	55.9	23.1	66.7	43.2	43.1	50.0	58.3	41.7	32.0	35.4	70.5	76.7	50.0	48.8	65.8
N1000-5000	26.5	50.0	0.0	34.6	34.7	37.5	16.7	41.7	27.0	28.3	26.2	18.6	50.0	44.2	29.5
N5001-10000	5.9	11.5	0.0	4.9	6.3	6.3	0.0	0.0	7.9	7.1	0.0	2.3	0.0	2.3	1.3
N10001-20000	2.9	11.5	0.0	6.2	6.3	3.1	16.7	0.0	10.0	9.1	1.6	0.0	0.0	0.0	0.7
N20001-30000	0.0	0.0	33.3	7.4	4.9	3.1	0.0	0.0	7.9	6.7	1.6	0.0	0.0	2.3	0.7
N30001-40000	8.8	3.8	0.0	2.5	4.2	0.0	8.3	8.3	3.3	3.4	0.0	0.0	0.0	2.3	0.7
N40001-50000	0.0	0.0	0.0	1.2	0.7	0.0	0.0	8.3	2.5	2.4	0.0	2.3	0.0	0.0	0.7
Over N50000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	7.7	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Pearson Chi-Square = 55.145						***P-Value* = .000**									

Source: Fieldwork 2014

The women in Shongom live closer to health facilities, than those in Nafada and in addition are more educated than the women in *Nafada* because 42% of women in Shongom have attended secondary school while only 8% of women in *Nafada* have attended a Secondary school. Women in Shongom are more educated than the women in Nafada due to their earlier exposure to western education because of the presence of the missionaries in their area. Also *Shongom* has more health facilities than *Nafada*.(45 compared to 24) although Nafada has a General hospital while Shongom has none, Shongom has 17 Maternity Clinics and 19 Health Clinics, while Nafada has only 4 Maternity Clinics, and 3 Health Clinics. User fees in both public and private health facilities constitute serious barriers to obtaining quality maternal health care, resulting in women either not seeking care or being denied essential services when they are unable to pay the accompanying fees. The reasons given by the women for not delivering in the health facilities are many and include: not being attended to promptly, being shouted at, not being comfortable with the position they are made to take during delivery, they preferred to squat instead of being made to lie down during delivery, some said a lot of people surround them during delivery wearing white uniforms

which makes them uncomfortable, also some of them said that delivery is easy for them so they do not need to go to the health facilities becausethey have delivered many children safely at home without any problem, they are also being discouraged by being told that they have had many children by the health workers and so they need to stop delivering. In addition they said they know of many women who have died during delivery in the health facilities, although they do not want to die, death is everywhere and is inevitable whether you deliver at home or in the hospital, so it is better for them to die at home peacefully surrounded by their family members, instead of in the health facility which is an unfamiliar environment with unfamiliar faces.

Table 9: Means of Transportation to the Health Facilities in Relation to Place of Delivery

Means of transportation to the health facilities.	Place of Delivery				
	At home alone %	At home with an assistant %	At home with a health worker %	At a health care facility %	Total N=590
Shongom N = 144					
On foot	70.6	57.7	66.7	70.0	61.1
On a bicycle	0.0	7.7	0.0	3.7	3.5
On a motorcycle	23.5	30.0	33.3	23.5	25.0
On a pick- up van	0.0	0.0	0.0	0.0	0.0
In a car	5.9	0.0	0.0	2.5	2.8
Tricycle	0.0	3.8	0.0	0.0	0.7
Total	100.0	100.0	100.0	100.0	100.0
Gombe N = 297					
On foot	56.3	41.7	41.7	39.8	41.8
On a bicycle	9.4	8.3	8.3	3.3	4.4
On a motorcycle	28.1	41.7	16.7	22.3	23.2
On a pick- up van	0.0	0.0	0.0	1.7	1.3
On a car	6.3	8.3	25.0	30.7	26.9
Tricycle	0.0	0.0	8.3	2.5	2.4
Total	100.0	100.0	100.0	100.0	100.0
Nafada N = 149					
On foot	90.2	86.0	50.0	90.7	86.6
On a bicycle	3.3	2.3	0.0	0.0	2.0
On a motorcycle	3.3	11.6	50.0	7.0	7.4
In a pick- up van	0.0	0.0	0.0	0.0	0.0
In a car	0.0	0.0	0.0	2.3	0.7
In a Tricycle	3.3	0.0	0.0	0.0	1.3
Total	100.0	100.0	100.0	100.0	100.0
		Pearson Chi-Square = 50.681		***P-Value = .000***	

Source: Field Work, 2014

Table 10: Place of Delivery in Relation to Cost of Delivery

Cost of delivery in Health Facilities	Place of Delivery				
	At home alone	At home with an assistant	At home with a health worker	At health care facility	Total
Shongom N = 111					
Free	21.4	16.3	0.0	62.2	100.0
0-1000	0.0	0.0	0.0	0.0	0.0
1001-5000	0.0	0.0	00.0	0.0	0.0
Above 5001	30.8	46.2	7.7	15.40	100.0
Total	22.5	19.8	0.90	56.80	100.0
Gombe N = 178					
Free	3.5	1.8	1.8	93.0	100.0
0-1000	0.0	2.4	2.4	95.2	100.0
1001-5000	0.0	0.0	0.0	100.0	100.0
Above 5001	0.0	0.0	0.0	100.0	100.0
Total	2.2	1.7	1.7	94.4	100.0
Nafada N = 103					
Free	42.7	20.4	1.0	35.9	100.0
0-1000	0.0	0.0	0.0	0.0	0.0
1001-5000	0.0	0.0	0.0	0.0	0.0
Above 5001	0.0	0.0	0.0	0.0	0.0
Total	42.7	20.4	1.0	35.9	100.0
	18.6	11.7	1.3	68.4	100.0
	Pearson Chi-Square = 40.720			***P-Value = .000***	

Source: Field Work 2014

Money has to be spent for buying various things to take to the hospital during delivery especially in the primary healthcare facilities which they cannot afford, such as sanitary pad of a particular kind, Dettol, soap, bleach, and baby clothes, and some money has to be paid when death occurs, coupled with all the protocol that has to be followed, before the corpse can be released to their loved ones for burial, whereas when they die at home they can be buried straight away without much time wasting and without any money paid to anybody.Others even said a pregnant woman dies as a martyr is *"Mutuwar Shahada*" which means they will go straight to paradise when they die during delivery, so there was no need to worry too much about going to the health facility to deliver, where they are surrounded by unfamiliar people, who do not know much about their traditions, culture and religion or know them but ignore them. Some Fulani women in Nafada most especially the uneducated ones are of the opinion that any woman who delivers in the hospital is not brave, she is called *"Raguwa*" (coward) especially if she delivers through caesarean operation, this means she has failed as a woman, she is supposed to be brave throughout the process of childbirth and is not to show any sign of pain and discomfort which will lead to taking her to the hospital to deliver. This believe greatly discourages women from giving birth in health facilities.

Table 11 Who Makes the Decision on the Number of Children to have in Relation to Place of Delivery

	Place of Delivery				
Who makes the decision on the number of children to have	At home alone	At home with an assistance	At home with health worker	At health care facility	Total
Shongom N = 144					
Husband	55.9	26.9	33.3	59.3	52.1
Wife	0.0	3.8	0.0	2.5	2.1
Both	26.5	30.8	33.3	14.8	20.8
Mother-in-law	0.0	0.0	0.0	0.0	0.0
Father-in-law	0.0	0.0	0.0	0.0	0.0
Imam/Pastor	2.9	0.0	0.0	0.0	0.7
Allah/God	14.7	38.5	33.3	23.5	24.3
Total	100.0	100.0	100.0	100.0	100.0
Gombe N=297					
Husband	9.4	0.0	16.7	19.1	17.2
Wife	6.3	25.0	16.7	22.0	20.0
Both	0.0	0.0	0.0	0.0	0.0
Mother-in-law	0.0	0.0	0.0	0.0	0.0
Father-in-law	0.0	0.0	0.0	0.4	0.3
Imam/Pastor	0.0	0.0	0.0	0.0	0.0
Allah/God	84.4	75.0	66.7	58.5	62.3
Total	100.0	100.0	100.0	100.0	100.0
Nafada N=149					
Husband	80.3	53.5	100.0	50.80	65.8
Wife	0.0	0.0	0.0	2.3	0.7
Both	1.6	0.0	0.0	7.0	2.7
Mother-in-law	0.0	0.0	0.0	2.3	0.7
Father-in-law	0.0	0.0	0.0	0.0	0.0
Imam/Pastor	0.0	0.0	0.0	0.0	0.0
Allah/God	18.0	46.5	0.0	32.6	30.2
Total	100.0	100.0	100.0	100.0	100.0
Total(N=590)	100.0	100.0	100.0	100.0	100.0
	Pearson Chi-Square = 30.340			***P-Value = .0.34***	

Source: Field Work, 2014

The Maternal healthcare services (MHCS) offered in the primary healthcare facilities state does not include the provision of items that women need to take to the hospital during delivery, such as baby clothes, sanitary pad, soap, bleach and Dettol this is to be provided by the women, however these items are provided free of charge to women when they go to deliver in the secondary health facilities in the state, as part of the free MHCS, most of the time, apart from baby clothes.The introduction of free services has also been undermined by the lack of system capacity to sustain free services, including inadequate staffing and supplies of medication. Pregnant women in Nigeria often find that health-care facilities have a list of items that they must pay out of pocket; this has the potential to dissuade poor or

financially struggling women from seeking maternal health care.

The chi-square test result in Table 10 shows that there is a great difference in place of delivery between women who deliver in health facilities free of charge and those that pay some fees for delivery in health facilities, with a high figure of 40.720, because majority of the women (80%) that delivered in the health facilities say it is free of charge. So the less the charge, the more the number of women that will deliver in the health facilities.

The women that make the decision on the number of children to have, had the highest number of deliveries in health facilities, while those that said ALLAH makes the decision on the number of children to have, had the least number of deliveries in health facilities. The chi square test result in Table 11 shows that there are differences in delivery in health facilities depending on who makes the decision on the number of children to have, with a value of 30.34. When women make the decision on the number of children to have, they will most likely deliver in the health facilities. This shows that the older women with higher parity (more children) had more deliveries at home than the younger women, with lower parity (less children).

The more the number of deliveries a woman has the more the likelihood that the women will deliver at home without any trained assistant. This is most likely because the woman thinks she has experience in childbirth since she has had many children without much difficulty and does need any trained assistance especially if she is not educated.This result agrees with the findings in the study carried out by Waziri 2009 in Maiduguri that women with higher parity were more likely to deliver at home alone, than those with lower parity. This findings support those of several studies, which confirm that younger women beginning child bearing tend to fear home deliveries as they consider themselves a high-risk group. As a result, such women seek professional assistance from skilled professionals in hospitals. (Fillipi et al 2009; Roost et al, 2004).

6. Conclusion

In conclusion the most important factors influencing the utilization of obstetric care services in Gombe, Nafada and Shongom areas of Gombe State according to the results of the chi square test are the following in descending order with some differences in the three areas are: - Educational status, travel distance of health facilities from home, who makes the decision to utilize health facilities, income, means of transportation to the health facility, cost of delivery, who makes the decision on the number of children to have, and finally number of children delivered. Other factors equally important are the religious, cultural and traditional beliefs, such as the stigma associated with hospital delivery in some rural areas such as *Nafada.*

7. Recommendations.

In view of the findings of this study, it is recommended that education of the women and increase in their income through free and compulsory education, and engaging them in various skill acquisition programmes especially in the rural areas, will certainly improve their outlook and improve their decision making process, which will eventually lead to increase in usage. In addition, religious and traditional leaders should be engaged by the government to create awareness and educate people (most

especially the married) in the study area, on the importance of delivering in healthcare facilities. While areas like *Shongom* should be provided with more public health services, which will all eventually lead to the increase in the use of obstetric care services in the State.

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