

## **Correlation of Maternal Health and the Utilization of Health Facilities in Udo Community, Edo State, Nigeria**

**Helen Ehi. Eweka**

Dept. of Social Work, Faculty of Social Sciences, University of Benin, Benin City, Nigeria

E-mail: [heleneweka2018@gmail.com](mailto:heleneweka2018@gmail.com), Mobile: +2348055909310

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### **Abstract**

*This study examined the nature and impact of healthcare facilities in Udo community. It specifically explores the rate of maternal mortality in the context of utilization of healthcare facilities and services in the study area. It adopted the cross-sectional survey design and research instruments were the semi-structured questionnaire and the in-depth interview guide. A total of three hundred and fifteen (315) questionnaires were administered to women who were 18 years and above. In order to have a representative sample, fifteen villages out of the twenty-six villages that make-up Udo community were randomly selected, but the stratified random sampling method was used to select the participants for the questionnaire and twenty-nine key informants for the in-depth interview who were purposively selected. Data collected were analyzed with SPSS into their constituent aggregates, tested with chi square and variables cross-tabulated. The findings show that there are a lot of impediments militating against women optimal access and utilization of the healthcare facilities in Udo community. Based on the findings, recommendations were made on the feasible ways to reduce the cost of care and improve the access and utilization of healthcare and by implication, the quality of maternal/women healthcare for the poor rural dwellers in the study area.*

**Keywords:** Community; Correlation; Culture; Facilities; Health; Impediment; Maternal; Utilization

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### **Introduction**

Globally, in 2015 about 345,000 women died from pregnancy-related complications and childbirth, 172,000 of these women were in Sub-Saharan Africa and 93,000 in South Asia (World Health Organization, 2017). These avoidable deaths of women attracted the attention of governments and International Agencies to focus special attention on the health of women all over the world, in order to drastically reduce the mortality rates during pregnancies and immediately after deliveries. Governments all over the world set up healthcare services to help their people attain good health and these facilities cover a wide range of services in health promotion, illness prevention and early detection of diseases as well as the management of health problems within these communities. These services are designed to meet the health needs of people through the provision for, and utilization by the people, of available healthcare facilities that are equipped and manned by professionals (Obiechina and Ekenedo, 2013).

Health needs are personal and social issue of men, women, children and the aged but that of women is a major issue because the health of families and communities are dependent on that of women who are the bedrock of families and societies all over the world. The survival of women during prenatal and postnatal periods is a critical indicator of the wellbeing of women and an indicator for assessing the performance of the healthcare systems of any nation (Ogunjuyigbe and Liasu, 2010). Of all the normally used healthcare indicators, maternal mortality shows the highest disparity between developed and developing countries (WHO, 2008 and United Nations (UN), 2012). It is believed that the high maternal mortality in Africa and South Asia is due to inadequate access to modern healthcare services and the poor use of available ones (Chakraborty, Islam, Chowdhury and Akhter, 2003).

Nigeria has one of the highest maternal mortality rates among the developing countries of the world (WHO, 2005) in which its annual maternal deaths is 59,000, hence, the Federal Government made several efforts to enhance maternal health and reduce maternal mortality. Nigeria Government is a signatory to several International Conventions and Programmes in which maternal health has featured consistently in several programmes such as Integrated Maternal Newborn and Child Health Strategy (IMCH), Mid-wife Services Scheme (MSS) and Systematic Primary Healthcare (PHC) infrastructure upgrade through the Ward System (National Demographic Health Survey (NDHS, 2013). Despite these efforts, maternal mortality and the general wellbeing of women remains an intractable challenge in the country (Mojekwe & Ibekwe, 2012; Akokuwebe & Okafor, 2015).

In spite of the above measures by the Federal Government of Nigeria to holistically enhance maternal health, maternal morbidity and mortality have been very high, owing to the fact that the utilization of maternal health services has been low (National Population Commission (NPC), 2006). The high rate of maternal mortality and morbidity in the rural communities in Nigeria has been attributed to low usage of maternal healthcare services which revealed that only 58% of Nigerian women received antenatal care services from trained professionals. Moreover, the supervision of child delivery by Skilled Birth Attendants (SBA) ranges between 9.8% and 81.8% and only about 45% of the women met the minimum recommended number of four antenatal care visits hence; utilization of family planning services has been very low with an unmet need of family planning of nearly 20% (Alenoghena, Isah & Isara, 2015). Though the focus of this study is generally on the health of women, emphasis is laid on maternal mortality owing to the fact that the major cause of death of women is complications related to

pregnancy and births, and period immediately after birth. The unresolved complications of pregnancy and birth related issues usually impact on the health of women throughout their life time.

Though a lot of empirical studies have been carried out on this subject matter, no empirical study has been conducted in Udo community and why there is still high maternal mortality in the area despite the enlightenment as well as efforts to abate the scourge and this creates a gap in literature which this study intends to fill. This study focuses on the correlates of the utilization of healthcare facilities in relation to the utilization of healthcare facilities in Udo community, Ovia South-West Local Government Area of Edo State.

### **Research Questions**

The following research questions guided this study:

- I. What is the nature of the Utilization of Healthcare Facilities in Udo Community?
- II. What is the impact of the Utilization of Healthcare Facilities in Udo Community?
- III. What are the correlates of the level of maternal mortality and the state of Healthcare facilities and utilization in the study area?

### **Objective of the Study**

The objectives of this study are to:

- I. examine the nature of the Utilization of Healthcare Facilities in Udo Community
- II. examine the impact of the Utilization of Healthcare Facilities in Udo Community.
- III. establish the correlates between the level of Maternal Mortality and the State of Healthcare Facilities and utilization in the study area.

### **Literature Review**

Good health represents an ideal state towards which all human societies strive to achieve for their members. This is borne out of the realization that only healthy people can fulfill their various obligations to the society and in the process, ensure survival and development. Isamah (1996) posited that remaining healthy is not only regarded as desirable and a form of wealth that is vital to people in all societies; but

the ways of evaluating and treating the problem of ill-health varies from one group to another. Izuagbara, Etakuto and Brown (2005), noted that the access of women to formal quality healthcare services in Nigeria is quite low. The three main providers of modern orthodox health services in Nigeria are the Federal, State and Local Government. Meanwhile, most medical facilities are mainly concentrated in the urban areas where only 30% of Nigeria women live. Most women live in the remote rural communities where movements and logistics are difficult, owing to intractable bad roads and lack of vehicles to ply the bad roads. They suffer these anomalies more because of the burden of caring and nurturing their families (children and husbands and dependents) hence the maternal mortality rate is very high (Alubo, 1995).

The emergence of formal healthcare services in Nigeria predates several national and sub-national development plans and dates back to the Colonial era. Before contact with the early European explorers and missionaries, traditional medical practitioners like herbalists and traditional birth attendants were dominant. The earliest form of modern medical services in Nigeria was introduced by the European explorers, but was not accessible to the locals until the coming of the Church Missionaries (Nigeria Federal Ministry of Health, 2004). In 2015, the Federal Ministry of Health estimated that a total of 23,640 health facilities in Nigeria of which 85.8% are primary healthcare facilities, 14% secondary and the remaining 0.2% tertiary. 38% of these facilities are owned by the private sector which provides 60% of healthcare in the country. Obansa and Orimisan, (2013) posited that Nigeria's teeming population of above 167 million is still struggling with the provision of basic healthcare services. In a similar vein, the Health Reform Foundation of Nigeria (HERFON)(2006) reported that healthcare facilities, health centers, healthcare personnel and medical equipment are inadequate in the country, especially in the rural areas which explains the high rate of mortality in children and women over the years.

The ideal goal of primary healthcare centers is to provide equitable and evenly distributed health services throughout the world's population (Alenoghena, Isah & Isara, 2015). The primary healthcare center strategy is meant to redress all the health challenges in the community by providing promotive, preventive, curative and rehabilitative healthcare services (Alenoghena, Isah, and Isara, 2015). Every individual including rural dwellers sees good health as a need; which makes healthcare utilization economically important. Good health is a necessity for all and the choice of a particular healthcare system responds to the laws of demand and

supply. The demand for healthcare is a derived demand because Healthcare is not demanded for itself but for the benefits that can be derived from being healthy (Aghion, Peter & Fabrice, 2010). In Nigeria, there is a growing recognition of the challenges of rural people's health issues and the need for it to be addressed (Hamid, Sadique, Ahmed & Molla 2005).

Shah and Say (2007) posited that maternal death is the death of a pregnant woman or a death 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. Maternal mortality has been a major cause of death among women of reproductive age in many countries of the world and remains a huge public health challenge especially in developing countries of the world including Nigeria (World Health Organization (WHO) 2007). The 2008 World Health Organization (WHO) factsheet shows that 150 women die from pregnancy or pregnancy related complications especially in developing nations, including Sub-Saharan Africa and one third in South Asia.

Most pregnant women in Nigeria do not receive the care they need either because there are no services where they live, or they cannot afford the services mainly due to high cost or accessing them is too expensive as regards transportation. Some women do not use services as they do not like the manner in which care is provided or because the health services do not deliver high quality care. Omoruyi (2008) estimated that in Nigeria, more than 70% of maternal deaths could be attributed to five major complications namely: hemorrhages, infections, unsafe abortion, hypertensive disease of pregnancy and obstructed labour. Similarly, Mairiga (2008) conducted a population based qualitative study in two urban centers and two rural communities in Bornu State of Nigeria to find out the knowledge and perceived implication of maternal mortality and morbidity as well as the perception of community and ways to prevent the scourge. The study revealed that maternal mortality was common in the communities and the causes were medical, cultural and socio-economic.

This study was informed and guided by the Three-Delay Models. The three delay models are explanatory conceptual framework for maternal health and its associated consequences including maternal and infant morbidity and mortality. This model is most appropriate as it investigates the determinants of utilization of maternal health services which affects maternal health. The model was propounded by Thaddeus and Maine (1994), who noted that it was appropriate due to its

simplicity and actions. The model is premised on the orientations that maternal complications are usually unpredictable. Most complications occur at home when women refuse the use of evidence-based maternity services and that maternal deaths can be prevented through tertiary prevention (preventing deaths among women who have been diagnosed with complications). They argued that inability to get appropriate treatment in time is the principal factor that accounts for a good number of maternal deaths in developing countries.

This theoretical framework helped this study in understanding in detail, that the accessibility and availability of good quality health services, family planning and so on and the ability and willingness to utilize them are key determinants of maternal mortality in the rural communities and, in fact, in the Third World nations.

### **Methodology**

The cross-sectional survey design was adopted for this study. In line with the cross-sectional survey design, a descriptive qualitative and quantitative studies on the Udo rural women's perspective and life experiences and utilization of healthcare services in the area was carried out. The study adopted both the qualitative and quantitative approaches in collection of data. The qualitative approach was used to elicit salient and in-depth information from 29 key informants of the study population which was attained through an in-depth interview of key research participants. The quantitative aspect of the study was achieved through the administration of the semi-structured questionnaires on the research participants and the population of this study was the entire women in Udo Community. According to the 2006 National Population Census, Udo community has a total of 6102 of which, 2389 are women, 3713 men while the rest are children, but the projected population of Udo Community for the year 2017 was 6423 of which 2449 are women. The population of Udo community was projected using 1.12% (population growth rate in Nigeria in 2017). In this context, the population of this study was the entire women of the selected communities that were 18 years and above who have been resident in any of the villages making up the community for a minimum of 6 months. From these villages, fifteen of them were randomly selected and from the selected villages, twenty-one women had questionnaires administered on them to fulfill the quantitative aspect of the study and using the households in the villages. The sample size of the study was three hundred and forty-four participants which were drawn from the study population using the Taro Yamane's mathematical model. The systematic sampling technique was employed

for this study. To select the women participants, the numbers 1st, 5th, 10th 15th, 20<sup>th</sup> houses on the major streets of the villages were selected and from each selected house, a woman was selected as participants in the research and administered the questionnaire. In case, the selected woman did not consent or was indisposed; the woman in the next house was selected without prejudice. From the fifteen villages selected, the head of the women's quarters (that is, the woman leader) popularly known as *Iye-Otu* or *Iye-ikhwoevbo* were selected for the in-depth interview (IDI). In all, fifteen women leaders of the fifteen selected villages were interacted with to fulfill the qualitative aspect of the research.

**Table 1: Socio-demographic Characteristics of Participants N=344**

Socio-demographic characteristics	Response	F(%) N=344
Age	18 – 25	52(15.1)
	26 – 35	82(23.8)
	36 – 45	75(21.8)
	46 – 55	67(19.5)
	56 – 65	43(12.5)
	66 & above	25(7.4)
Marital status	Single	88(25.6)
	Married	208(60.5)
	Separated	-
	Divorced	9(2.6)
	Widowed	39(11.3)
Religion	Christianity	292(84.9)
	Islam	36(10.5)
	African Traditional Religion	16(4.6)
Educational qualification	No formal education	136(39.5)
	Primary education	92(26.7)
	Secondary education	96(27.9)
	Tertiary education	20(5.9)
Occupation	Formal employment	-
	Self-employed (farmer)	268(77.9)
	Self-employed(not a farmer)	64(18.6)
	Unemployed	12(3.5)
Household Income level (Monthly)	Below N10,000	296(86)
	N10,000-N19,000	16(4.7)
	N20,000-N29,000	15(4.4)
	N30,000-N39,000	6(1.7)

	N40,000-N49,000	7(2)
	N50,000 and Above	4(1.2)
Ethnic group	Benin or Bini	180(52.3)
	Urohobo	36(10.5)
	Igbo	16(4.7)
	Yoruba	20(5.8)
	Ijaws	8(2.3)
	Others	84(24.4)

Source: Field work, 2019

### Research Objective One: To examine the nature of the Utilization of Healthcare Facilities in Udo Community

**Table 2: The Nature of the Utilization of Healthcare Facilities=N344**

Variable	Response	
	Yes (%)	No (%)
Are the processes of utilizing healthcare centers in your area friendly and easy?	92(26.7)	252(73.3)
Are the healthcare facilities available in Udo community affordable and accessible?	120(34.9)	224(65.1)

Source: Field work, 2019

Commenting on the accessibility and affordability of the healthcare facilities in Udo community in order to elucidate some reasons why the facilities were underutilized, an IDI stated thus:

*‘They charge more than those patent medicine stores. Although the hospital is neat but they are not always ready for all intending patients because no doctor to attend to us most times. This usually gets a lot of us discouraged after travelling long kilometers. On few occasions we are informed that the doctor is on ground, but we have to wait for hours for us to be attended to this always discourage us from utilizing the healthcare services’. Another major problem I have come across here is that, the cost of treatment in the hospital or any of the available healthcare centers is very high. How do you expect a woman who was diagnosed of malaria to pay up to about three thousand five hundred naira to get treatment when her*

*mother in-law can easily give her some herbal medicine to treat malaria freely? Most women here only patronize the healthcare facilities when they have serious health challenges in which after taking the herbal medicine for some days and there is no health improvement. Even at that, some still travel as far as going to a neighboring village to seek the help of a known medicine man or woman than going to pay huge sum of money in the modern healthcare centers.*

(IDI, women leader, Igueze, April, 2019)

Responses were sought on the challenges faced by women in accessing healthcare facilities, the wife of the Iyase who is the traditional ruler of the community noted that, doctors and nurses have severally complained that the medical equipment needed at the healthcare centers were not readily available and the common drugs which patients need are also not available and if provided, they are not affordable. Therefore, the study reveals that the healthcare facilities in Udo community do not meet the health needs of the people. From the above analysis, it was established that the healthcare facilities were not easily accessible and affordable in the study area. This can also be ascribed to the problems faced by the women in the aspect of getting the prescribed drugs at affordable cost. The findings in this study is in agreement with the study conducted by, Iram, Manzoor, Rahat Hashmi and Mukthar (2009) which argued that cost has also undoubtedly been a major barrier in seeking appropriate healthcare as healthcare seekers do not have adequate funds in getting the healthcare services.

### **Research Objective Two: To examine the Impact of the Utilization of Healthcare Facilities in Udo Community**

**Table 3: The Impact on the Utilization of Healthcare Facilities in Udo Community**

	<b>Responses</b>	
	<b>Yes (%)</b>	<b>No (%)</b>
During your visits to the healthcare facility do you get all the drugs prescribed for you?	128(37.2)	216(62.8)
Do you think that your health needs and those of your household members are being met by these healthcare facilities in Udo community?	129(37.5)	215(62.5)

**Source: Field work, 2019**

On the question of whether the participants get all the drugs prescribed for them, 37.2% women revealed that they got the prescribed drugs during their visit to the healthcare facilities as against the 62.8% who declared that they did not get the prescribed drugs from the healthcare facilities. In addition to the above, 37.5% stated that their healthcare needs and those of their household were met as against 62.5% who mentioned that there was no impact of the healthcare facilities on their health since the healthcare facilities did not meet their health needs or those of their households.

Commenting on whether the healthcare seekers got all the drugs prescribed in the healthcare facilities in Udo community. The findings from the IDI corroborated those from the questionnaire survey conducted. The following captured the broad view of the IDI participant:

*‘When I was pregnant with my first child, my husband informed me That there were three major healthcare facilities located within this community. I obtained a card from the UBTH (Annex) but whenever I went there during antenatal visit, the nurses available always informed patients that the doctor was not on sit. I had to either wait for hours for the resident doctor to come but most times, he was not always available. There was a time that my mother in-law was very sick, we took her to the General Hospital, Iguobazuwa that was after we rushed her to the UBTH Annex but we could not see any doctor to attend to her. When we finally got to the General Hospital, the doctor carried out some test on her and later prescribed some drugs but we did not get the prescribed drugs to buy in the pharmacy unit of the hospital. I had to call my brother who resides in Benin City to buy the drugs and send it to us’*

(IDI/Married/2019)

From the aforementioned response, it is evident that the healthcare facilities located in the study area do not adequately meet the needs of the members of the community as the healthcare seekers are faced with diverse challenges at the healthcare centres whenever they seek healthcare services. Therefore, the study reveals that the healthcare facilities in Udo community do not meet the health needs of the people. This can further be characterized by the impediments which militate against the use of healthcare facilities.

**Research Objective Three: To establish the correlation between the level of Maternal Mortality and the State of Healthcare Facilities and Utilization in the Study Area.**

**Table 4: Correlation between the level of Maternal Mortality and the State of Healthcare Facilities and Utilization**

Length of stay (years) in the community	Do you think that there is a relationship between the level of maternal mortality and state of health facilities and utilization in Udo community?	
	Yes (%)	No (%)
Under 5 years	28(58.3)	20(41.7)
5–10	26(59.1)	18(40.9)
11–20	49(64.5)	27(35.5)
21–30	47(58.8)	33(41.2)
31– 40	20(58.8)	14(41.2)
41–50	22(56.4)	17(43.6)
51& above	14(60.9)	9(39.1)

**Source: Field work, 2019**

From the above analysis, it can be deduced that there is a correlation between the level of maternal mortality and Healthcare facilities and utilization which is not related to the state of healthcare utilization in the study area but can be attributed to the inadequate healthcare facilities such as the primary health centers located within the community and also the presence of some socio-cultural barriers against utilizing the healthcare facilities.

Responses from the qualitative data also revealed that majority of the participants have adequate knowledge of the issue of maternal mortality for examples, one of the IDI participants stated thus:

*Maternal mortality occurs here partly because of some problems associated with inadequate primary healthcare centers in this community, in addition to high cost for services rendered by the few healthcare centers that are available. When it comes to distance for example, you don't expect a woman who is already on labour to travel long distance on motor bike to the nearest healthcare facilities which probably is more than thirty minutes bike ride. During the course of travelling such long distance on bad*

*road, complication may arise and an unpalatable event may occur during the process of delivery. Since I started living and working here few years ago till now, I have heard of how some women died during the process of delivery or few weeks after delivery some other reason could also be due to complication due to overdose of the traditional medicines given to them by the Traditional Birth Attendants (TBAs).*

(IDI, Nurse, Udo UBTH Annex, interviewed on the 10<sup>th</sup> of April, 2019)

The wife of Iyase of Udo, the resident doctor, matrons, nurses and all the women leaders in the area of study agreed that there is maternal mortality in the area but noted that the major problem on their part is the careless attitude towards seeking healthcare services. On maternal mortality, a woman leader in the community affirmed that there is maternal mortality in the area of study even though records may not be available to show the prevalence. According to her:

*“I cannot really tell if it is common here, the reason is that the women care for themselves by using either roots and herbs or modern medicine. They go for scan when they are pregnant and also do the right thing at the right time when they are informed about their health conditions’.*

(IDI, community leader, Udo, April, 2019)

From the foregoing, it can be deduced that there is maternity mortality in Udo community as some participants noted that the use of herbs in place of orthodox medicine during antenatal and post-natal periods the problem of accessing health facilities may be the major cause of maternal mortality.

### **Discussion of Findings**

The results of this study show that there are issues of accessibility of healthcare services in the area of study, which correlates with the assertion of Hartigan (2011), who listed the issues in healthcare services utilization to include communication, mode of transport, and closeness to facility, time to reach to nearest facility and area of the location. Accessibility in this context refers to the location of the population and the health facilities and services available, transportation, and opportunity costs. It has been recognized as an independent factor for rural dwellers because of the distance they have to take before getting to the healthcare centers.

On the issue of maternal mortality in Udo community, the study reveals that there is high maternal mortality in the study area and this agrees with the findings of the World Health Organization (2007) report that for a long while, maternal mortality has been a major cause of death among women of reproductive age in many countries of the world and has remained a huge public health challenge especially, in developing countries of the world including Nigeria. This study also confirm the work of Mairiga (2008) who reported a case of high maternal mortality in most of the States in Nigeria where the research was conducted and it was a population based qualitative study in two urban and two rural communities in Bornu State and other states in Northern Nigeria to find out the knowledge and perceived implication of maternal mortality and morbidity as well as community members perception and ways to prevent the scourge.

This study equally established that the traditional medicine and use of herbs are still very rampant and patronized by the people especially the women in Udo community, i.e. women still patronize the herbalists and traditional medicine practitioners in the study area. Finding shows that Traditional Birth Attendants (TBAs) plays major roles in pre-natal and antenatal activities of women of the community. This poses a threat to the health of the women because of the hazards associated with the methods the TBAs use in their practice.

### **Conclusion and Recommendations**

Based on the above findings, the study concludes that the healthcare facilities in Udo community are not easily accessible and affordable hence maternal mortality in the study area is unfortunately high. The study therefore, recommends that communities should encourage their members to appreciate healthcare facilities, provided by the governments and utilize them. In order to combat the problem of women's poor health, maternal and child mortality and morbidity, the standard of healthy living of the Nigerian populace must be raised. The study also recommends that the empowerment of women is a prerequisite for any tangible improvement in the access and utilization of maternal healthcare.

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