Assessing the Role of Primary Health Care in the Prevention of Maternal Mortality in Oredo Local Government Area, Edo State, Nigeria

[1]Osagie Lucky OMORUYI & **[2]Elijah Etin-Osa OBOH**

[1]Department of Sociology and Anthropology, Faculty of Social Sciences, University of Benin, Benin City
[2] Department of Geography and Regional Planning, Faculty of Social Sciences, University of Benin, Benin City
Email: osagie.omoruyi@uniben.edu & obohelijah@yahoo.com

Abstract

The aim of this study was to assess the role of primary health care in the prevention of maternal mortality in Oredo Local Government Area. The study used survey research design. The population of the study was 2,104 women who attended antenatal care in the study area. The sample size for the study was 383 women within the reproductive age of 15-49 years and who were users of primary health care centres in Oredo Local Government Area. The simple random sampling and convenient sampling techniques were variously applied in this study at different stages. Data were collected using a semi-structured questionnaire made up of both open and closed ended questions and were analysed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics such as frequency and percentage distribution were used to present the data in tabular form. The finding of the study further reveal that primary health care still plays a significant role in the prevention of maternal death in the study area in particular and Nigeria in general. Based on the finding, the study recommends among others that government should provide health insurance policy for pregnant women on antenatal to further attract them to seek medical and maternal care from primary health care centres in their locality.

Keywords: Health, Maternal Mortality, Primary Health Care, Prevention and Role

Introduction

Pregnancy and childbirth are normal physiological processes that bring joyful experience to individuals and families. However, in many parts of the world, pregnancy and childbirth is a perilous journey, a risky and potentially fatal experience for millions of women especially in developing countries (Olopade & Lawoyin, 2008). Arguably, if there has ever been one health issue that has attracted global consensus and witnessed massive investments over decades, it is probably the death of mothers and their children (Partnership for Maternal, Newborn and Child Health, 2011). Maternal mortality has always attracted little attention until the late 1980s when Rosenfield Allan and Deborah Maine drew the attention of the world to the tragedy with their ground breaking article: "Maternal Mortality, a neglected tragedy.'' Since then, there have been efforts from world bodies such as the United Nations (UN), World Health Organization, Non-Governmental Organizations (NGOs), philanthropists, research institutions and individual researchers to find answers to the question of why women die during and after childbirth (Senah, 2003). Maternal mortality reduction remains a priority under ''Goals 3, that is to ensure healthy lives and promote well-being for all at all ages'' and also it is emphasised in Sustainable Development Goals (SDGs) agenda from 2015 through 2030 (Hiluf & Fantahun, 2008).

The Nigerian health system has been plagued by problems of service quality, including unfriendly staff attitudes to patients, inadequate skills, decaying infrastructures and chronic shortages of

essential drugs, irregular electricity and water supply, thereby putting the health sector in a miserable state (Harrison, 2009). Approximately two-thirds of all Nigeria women deliver outside of healthcare centres and without medically skilled attendants. The weak performance of the health system must be understood in the context of the country's long standing problems with governance and corruption which is endemic in the political system (Mojekwu & Ibekwe, 2012). Furthermore, Omo-Aghoja, Aisien, Akuse, Bergstrom and Okonofua (2008) asserted that maternal care in Nigeria is organized around three tiers: primary, secondary and tertiary care levels. Primary Health Care centres are located in all 774 local government councils in the country. Pregnant women are to receive antenatal care, delivery and postnatal care in the primary health care centres nearest to them. In case of complications they are referred to secondary care centres, managed by states, or tertiary centres managed by the Federal government.

The Primary Health Care role in preventing maternal mortality is through provision of maternal health care services and maternal health care services provide avenues for the early detection of mothers at high risk of illness and mortality during pregnancy, labour and postnatal period (Lucas & Gilles, 2003). The objective of maternal health care is to ensure that expectant and nursing mothers maintain good health and the process starts at the time of conception of the child (Rogan & Olvena, 2004). The United Nations Population Fund (UNFPA, 2006) stated that the main objectives of the maternal health care services are the provision of antenatal care, skilled assistance for normal deliveries, appropriate referral for women with obstetric complications and post-natal care. Other objectives are provision of family planning and other reproductive health services such as infertility care services, and emergency blood transfusion.

Statement of the Problem

The goal of primary health care was to provide accessible health for all by the year 2000 and beyond. Unfortunately, this is yet to be achieved in Nigeria and seems to be unrealistic (Abdulraheem, Olapipo & Amodu, 2012). Similarly, primary health care centres are uniformly distributed throughout local government areas (LGAs) in Nigeria but the rural people tend to underuse the basic health services, thereby undermining its effectiveness. The Strength of primary health care is dedicated to improving the health status of communities and reducing maternal mortality and morbidity but the situation in Nigeria has yet to attain the desired level. Data shows that as at 2015, Nigeria recorded 814 maternal deaths per 100,000 live births and this situation puts Nigeria in the same category with Somalia, Niger, Chad, Sierra Leone, and Angola among others as countries with poor health care system (Metiboba, 2009). However, despite some challenges confronting primary health care in Nigeria, it still remains the minimum package of healthcare that can provide medical care to every individual and community across Nigeria Health System (Olalubi & Bello, 2020). It is on the basis of this that the study assessed the role of primary health care in the prevention of maternal mortality in Oredo Local Government Area of Edo State.

Conceptual Clarification

Primary Health Care

According to WHO (2012), primary health care is considered to be an essential care, based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. Primary health care forms an integral part of a country's health system, of which it is the central function and main focus, and of the overall social

and economic development of a community. It is the first level of contact of individuals, the family, and the community with the national health system as well as bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

A trans-disciplinary understanding of primary health care acknowledges the role of health care providers from diverse disciplines, within a philosophy and framework of primary health care that is guided by the principles of access, equity, essentiality, appropriate technology, multi-sectorial collaboration, and community participation and empowerment. Primary health care, as part of the comprehensive national health care system, goes a long way to achieving the social objectives of the national health system. It is the responsibility of each country to interpret and adopt a particular, detailed aspect of primary health care within the country's own social, political, and developmental context. Achieving this requires trade-offs that must start by taking into account citizens expectations about health and health care and ensuring that their voice and choice decisively influence the way in which health services are designed and operated (WHO, 2008).

The health services, based on primary health care, include among other things: education concerning prevailing health problems and the methods of preventing and controlling them, promotion of food supply and proper nutrition, maternal and child care, including family planning, immunization against the major infectious diseases, prevention and control of locally endemic and epidemic diseases and provision of essential drugs and supplies. The provision of health care at primary health care level is largely the responsibility of local governments with the support of state ministries of health and within the overall national health policy (Nigeria Constitution, 1999). Primary health care is the backbone of a health system, hence, the quality of primary health care initiatives has been recognized as fundamental to improving health outcomes (Friedberg, Hussey & Schneider, 2010).

Maternal Mortality

The death of a woman during pregnancy and labour is a tragedy that carries a huge burden of grief and pain, and has been described as a major public health problem in developing countries (Ogbonaya & Aminu, 2009). According Ogu and Ephraim-Emmanuel (2018), maternal mortality is defined 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 to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Globally, every year about 500,000 women die as a result of child birth (Ogunjimi, Ibe & Ikorok, 2012). Africa accounts for the highest burden of mortality among women and Nigeria records 814 maternal deaths yearly (Prata *et al*, 2008). Although, there has been a reduction in the number of deaths over the years till date, there remains a considerable gap of what has been left undone. The need to ensure good maternal health can never be over-emphasized because a mother has a significant impact on the wellbeing of her family. In other words, the death of a mother may be the beginning of poverty, malnutrition, lack of education for children and a myriad of other adverse socioeconomic effects which affect the family particularly and the society generally (Ikhioya, 2014).

In Nigeria, despite offering a wide range of maternal health services including free antenatal care, training of skilled birth attendants etc.; and as well the provision of resources, the situation of maternal health in Nigeria remains one of the worst in Africa (Yar'zever, 2014). On the causes of maternal death, Mojekwu (2005) asserts that it could be classified as medical factors, health factors, reproductive factors, unwanted pregnancy and socioeconomic factors. Furthermore,

medical factors include direct obstetric deaths, indirect obstetric deaths and unrelated deaths. Direct obstetric deaths result from complications of pregnancy, delivery or their management. Indirect obstetric deaths result from worsening of some existing conditions such as malaria, anaemia, anaesthetic death, meningitis, HIV/AIDS, sickle cell, renal failure and hepatitis. Health service factors include deficient medical treatment, mistaken or inaction by medical personnel, lack of essential supplies and trained personnel in medical facilities, lack of access to maternity services and lack of prenatal care. Other risk factors for maternal mortality in Nigeria include maternal age, illiteracy, and non-utilisation of antenatal services (Ujah, Aisien, Mutihir, Vanderagt, Glew & Uguru, 2005).

Theoretical Framework

The theory adopted for this study is the Health Belief Model. The Health Belief Model is a conceptual framework used to understand health behaviour and possible reasons for non – compliance with recommended health action (Becker & Rosenstock, 1984). It provides guideline for programme development and allows health planners to understand and address reasons for non-compliance. The frustration as to why the public was not responding to the Federal Government offerings of free preventive health programmes in the 1950s in USA sparked the research of three Psychologists, Irwin Rosenstock, Godfrey Hochbaum and Stephen Kegels with the aim of identifying the reasons for the health behaviour and to resolve the problem. These psychologists tried to understand why people would or would not accept disease preventive measure or early response to disease in terms of treatment (Rosenstock, 1974). According to Maiman and Becker (1974), the basic components of HBM are derived from well-established body of psychological and behavioural theories whose models hypothesize that behaviour depend mainly upon two variables: the value placed by the individual on a particular goal and the individual's estimate of the goal. When these variables are understood in health terms, the outcomes are seen as: the desire to avoid illness or to get well if ill and the belief that a particular health action will prevent or reduce illness.

In this study, the desire to utilize the maternal health care available in the primary health care centres in Benin City in preventing maternal mortality will depend on the value pregnant mothers place on the primary health care service as well as their estimation of the goal of achieving good health for themselves when pregnant and after delivery. The value placed on the availability of health service options often evolve from long term experiences and socialization process. Pregnant mothers with negative experiences from the health centres, in the form of "out of stock" syndrome and poor attitude of the health workers, will place lower value on the use of primary health care centres. When women perceive the health threats posed by pregnancy and childbirth processes, they are likely to seek maternal health services like antenatal care, family planning, childbirth, postnatal and immunization services in the PHC centres located in their communities.

Primary Health Care and Maternal Mortality

The primary health care was adopted in Nigeria to provide health services among others in reducing maternal mortality and other health challenges confronting women especially amongst the rural poor. In order to achieve this aim, several programmes were implemented to address the poor access to health care in Nigeria. This programmes started with the various National Development Plans that massively extended access to health care, and also was an attempt to attain goal four and five of the Millennium Development Goals (MDGs), such as Midwives Service

Scheme (MSS), introduced by the Nigeria government, to rapidly increase access to skilled birth attendants (Abdullahi, 2010).

Reduction in maternal mortality and morbidity has also been the focus of several international conferences and programmes. From the introduction of Primary Health Care in 1978 through the Bamako Initiative, Safe Motherhood and the Millennium Development Goals, more programmes were aimed at improving quality, access and utilization of health services by all the people with special attention given to women and children (Hiluf & Fantahun, 2008). Similarly, the roles of the primary health care could be seen in the five (5) prioritized interventions areas which includes; family planning, skilled birth attendants (SBAs), emergency obstetrics and newborn care, universal coverage of antenatal care and post-natal care, and improved referral system (UNDP, 2003).

The Alma-Ata Declaration of 1978 expressed the need for urgent action by government at all levels, health and development workers, and the world community to protect and promote the health of all the people, especially women and children. Primary health care has been identified as the key to attaining this, as part of development in the spirit of social justice. It relies on local and referral level, of health workers, including physicians, nurses, midwives and community workers as applicable, as well as traditional practitioners. These health practitioners and stakeholders must be suitably trained socially and technically to work as health team so as to respond to the express health needs of the community and importantly women seeking medical care during and after pregnancy (Abosede & Sholeye, 2014). Ujah *et al* (2005) in their study posits that Maternal Mortality Ration (MMR) among unbooked women was 20 times greater than among women who had antenatal care and 15 times worse than in women who booked for antenatal care health centres. This finding attest to the fact that maternal and reproductive health services in health systems constitute a large range of curative and preventive health services of particular importance to the healthy women of reproductive age.

Materials and Methods

The study was anchored on quantitative data using the survey research design which enabled the gathering of data from the sampled population. The study was limited to primary health care centres in Oredo Local Government Area of Edo State with capital in Benin City. The target population for this study consists of all women of child bearing age (15– 49 years) in Oredo Local Government Area. The estimated population serviced by the 11 Primary Health Care centres in Oredo Local Government Area was 2,104 women, who attended antenatal care and family planning. However, there were eleven (11) Primary Health Care Centres in Oredo Local Government Area, namely: Ugbor PHC, New Benin PHC, Aruogba PHC, Ekae PHC, Evbuodia PHC, Utagban PHC, Urban PHC, Oredo PHC, Emwinyomwanru PHC, Uholor PHC, and Ugogogin PHC. For the purpose of this study, eight primary health care centres were selected using the simple random sampling technique. The reason for adopting the technique was that each primary health centre stands the equal chance of being selected. The selected primary health care centres were Ugbor, Uholor, Evboudia, Ogbe, Utagban, Ebo, Okhorhomi and Amagba. The sample size for this study was 383 women within the reproductive age of 15-49 years and who were users of Primary Health Care centres in Oredo Local Government Area. This number was derived using the Krejcie and Morgan (1970) sample size formula, and this is due to the fact that the target population is known, using the formula below:

$S = x^2 NP (1- P)/d2 (N-1) + x^2 P (1-P)$

Where:
S= Required Sample Size
X= Z value (e.g. 1.96 for 99% 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 (0.5); It is the margin of error.

383 copies of questionnaires were administered with the aid of convenience sampling method. The convenience sampling technique was utilized because of the availability and accessibility of the respondents. The data collected through questionnaire were analysed using Statistical Package for Social Sciences (SPSS). The output of the analyses necessitated the use of tables to show frequencies and percentages.

Result of the Findings

The result of the findings on the role of primary health care in the prevention of maternal mortality in Oredo Local Government Area of Edo is presented in Table 1.

Table 1: Role of Primary Health Care in the Prevention of Maternal Mortality in Oredo Local Government Area

Variable	Response	Frequency	Percentage %
Did you attend Antenatal Care when you were Pregnant	Yes	286	74.7
	No	97	25.3
	Total	**383**	**100**
How would you describe the maternal health care and the primary health care centre in your community	Very good	51	13.3
	Good	139	36.3
	Fair	92	24.0
	Poor	47	12.3
	Very Poor	54	14.1
	Total	**383**	**100**
Were the health personnel always available	Yes	256	66.8
	No	127	33.2
	Total	**383**	**100**
During your visit to the health centre, did you get all the drugs prescribed for you?	Yes	229	59.8
	No	154	40.2
	Total	**383**	**100**
How would you describe your experience with the health centre whenever you attended antenatal	Satisfied	268	70.0
	dissatisfied	115	30.0
	Total	**383**	**100**
What problem(s) did you encounter in accessing health services in the health centre (You can tick more than one)	Health care centre do not open on time	136	35.5
	Distance to health centre		
	Inadequate health workers	25	6.5
	I don't care attitude of the health	78	20.4
	workers	61	15.9
	Long waiting time	83	21.7
	Total	**383**	**100**

What service(s) did you source from the health care centre (you can select more than one option)	Antenatal care Maternal and child immunization Family planning Postnatal care Other Medical Services **Total**	138 129 47 42 27 **383**	36.0 33.7 12.3 11.0 7.0 **100**
Who decide the health centre to be used for Antenatal, Birth and Postnatal Care?	Self Husband Both of us Others specify **Total**	128 88 119 48 **383**	33.4 23.0 31.1 12.5 **100**
Reasons for the choice of health centre?	Better services Closeness to Residence Cost of Services Others **Total**	133 118 59 73 **383**	34.7 30.8 15.4 19.1 **100**

Source: Fieldwork, 2019

The Table 1 above shows the percentage distribution on the role of primary health care in preventing maternal/child death in Oredo Local Government Area, the data indicates that 74.7% of the respondents affirmed that they attend antenatal care when they were pregnant, while 25.3% of the respondents indicated that they do not attend antenatal care when they were pregnant. More so, 36.3% of the respondents indicated that the maternal health care situation of the primary health care centre in their community is good, 24% of the respondents indicated that the maternal health care situation of the primary health care centre in their community is fair, 14.1% of the respondents indicated that the maternal health care situation of the primary health care centre in their community is very poor, 13.3% of the respondents indicated that the maternal health care situation of the primary health care centre in their community is very good, while 12.3% of the respondents indicated that the maternal health care situation of the primary health care centre in their community is poor. The analysis of the data above suggests that the conditions of the primary health care centres in Oredo Local Government Area is generally good, hence the increase in the its utilization by pregnant women compared to traditional birth attendants and other quackery means of giving birth.

Furthermore, the data from Table 1 above also indicates that 66.8% of the respondents sampled indicated that health personnel were always available at the primary healthcare centre whenever they visit for antenatal care, while 33.2% indicated that health personnel were not always available at the primary healthcare centre whenever they visit for antenatal care. On the availability of drugs, 40.2% of the respondents indicated that during their visit to the health centre for antenatal care, they did not get all the drugs prescribes for them, while 59.8% of them indicated that during their visit to the health centre for antenatal care, they get all the drugs prescribes for them. The reason for getting the drugs was that most of the drugs were often supplied by the state government and other international donors.

On respondent's experience in the health care centre, 70% of the respondents indicated that they were satisfied with the experience at the health centre whenever they go for health services, while 30% of the respondents were dissatisfied with experience at the health centre whenever they go for health services. Although, in accessing health services at the health centre, 6.5% of the respondents do encounter the problem of distance to health centre, 21.7% of the respondents had

problem with long waiting time, 20.4% indicated that the health workers were grossly inadequate in manpower, 35.5 also indicated that the primary health centre do not open time and 15.9% indicated that most often the health workers exhibits I don't care attitude. In relation to the services sourced for from the health centre by respondents, 36% of the respondents sourced for antenatal care services, 33.7% of the respondents sourced for Maternal and child immunization services, 12.3% sourced for family planning services, 11% sourced for postnatal care services and while 7.0% sourced for other medical related services at the healthcare centre.

On the issue of decision and choice of health care centre, 33.4% of the respondents decided the health centre to use for antenatal, birth and postnatal care themselves, 31.1% of the respondents indicated that the decision on the health centre to use was decided by both couple, 23% of the respondents indicated that the decision on the health centre to use was decided by their husband only, while 12.5% of the respondents indicated that the decision on the health centre to use was decided either by their family members or friends. More so, the data above also indicates that 34.7% indicated better services as the reason for the choice of health centre, 30.8% of the respondents indicated closeness to residence as the reason for the choice of health centre, 19.1% of the respondents indicated other personal reasons as the reason for the choice of health centre, and 15.4% indicated cost of services as the reason for the choice of health centre.

The finding of the study in relation to the role of primary health care in the prevention of maternal mortality in Oredo Local Government Area of Edo State was that majority of the respondents attends antenatal care services in the primary health care centres when pregnant. In other words, pregnant women in Oredo Local Government Area of Edo State were aware on the danger of not attending antenatal care in primary health care centres. This finding corroborated the findings of Lawton *et al* (2012) and Vincent *et al* (2002) that patients seeking medical care are informed and encouraged to know about safe care and the danger for not seeking medical care. Pregnant women at the local government level were usually encouraged to seek antenatal care services at the closest primary health care centres to reduce maternal mortality.

Conclusion

This study has examined the role of primary health care in the prevention of maternal mortality in Oredo Local Government Area of Edo State Nigeria. The findings of the study have revealed that Primary Health Care centre plays a significant role in the prevention of maternal mortality in Oredo LGA. In other words, there is a significant relationship between the primary health care centre and the prevention of maternal mortality in the study area. From the foregoing, it can be deduced that the majority of pregnant women have knowledge about the availability of primary health centre in the study area. However, the women are encouraged to adhere to antenatal instructions and visit health centres immediately they notice any negative sign during pregnancy for prompt medical attention. Conversely, many of the women sampled in the study area have some knowledge about the danger and threat of maternal mortality. Majority of them believe that not seeking antenatal care services in primary health care centre can lead to maternal mortality.

Recommendations

Based on the findings of this study, the following recommendations were made to improve the standard of primary health care centres and reduce or eliminate maternal mortality in the study area in particular and Nigeria in general.

1. Government should provide health insurance to pregnant women on antenatal. Policy makers and political actors need to devise health care reforms to address the lack of social and financial protection for the poor and vulnerable women. Part of this reform should be the expansion of the National Health Insurance Scheme (NHIS) to states and local government councils to cover the vulnerable groups, specifically pregnant women seeking antenatal care. Similarly, technical strategies, implementation plans, and road map to achieving high coverage with quality maternal and neonatal health (MNH) services should be developed across a range of Nigeria communities for universal health coverage among women with antenatal needs.
2. Government should increase the funding of all primary healthcare centres in Nigeria. The funding will ensure the provision of modern medical equipment and recruitment of more health workers. These mechanisms should include sufficient overall funding for needed services; the appropriate incentives for providers and for women who deliver at a certified centre capable of providing optimal care.
3. There is need for child bearing women in the rural communities in Nigeria to be sensitized by women associations/organizations on the need to utilize the maternal health care available in the primary health care centres. As this would help them to achieve good health for themselves when pregnant and after delivering as well as prevent maternal mortality in the society.

References

Abdullahi, M. J. (2010). Overview and the Status of Implementation of the Midwives Services Scheme. Paper Presented on 24th March, 2010, at the Pre-conference Workshop of the Association of Public Health Physicians of Nigeria in Lagos

Abdulraheem, I. S., Olapipo, A. R. and Amodu, M. O. (2012). Primary health care services in Nigeria: Critical issues and strategies for enhancing the use by the rural communities. *Journal of Public Health and Epidemiology* 4(1); 5-13.

Abosede, O. A. and Sholeye, O. O. (2014). Strengthening the foundation for sustainable primary health care services in Nigeria. Primary Health Care: 4(3); 167

Becker, M. H. and Rosenstock, I. M. (1984). Compliance with Medical Advice. In Steptoe, A. and Mathew, A. (Eds) Health Care and Human Behaviour. London, Academic Press.

Friedberg, M. W., Hussey, P. S. and Schneider, E. C. (2010). Primary care: a critical review of the evidence on quality and costs of health care. Health Aff (Millwood) 29(5): 766-772.

Harrison, K. A. (2009). The struggle to Reduce High Maternal Mortality in Nigeria. *African Journal of Reproductive Health.* 13(3); 9-20.

Hiluf, M. and Fantahun, M. (2008). Birth preparedness and Complication Readiness among women in Adigrat Town, North Ethiopia. *Ethiopia Journal of Health Development.* 22(1); 14-20. *www.ajol.info/index.php/ejhd/article/view/10057*

Ikhioya, G. O. (2014). Maternal Mortality and the Safe Motherhood Programme in Nigeria: Implication of Reproductive Health. International of Education and Research 2(10); 15-26.

Krejcie, R. V. and Morgan, D. W. (1979). Determining Sample Size for Research Activities. Educational and Psychological Measurement, 30; 607-610

Lawton, R. and Armitage, G. (2012). The role of patient in clinical safety. The Health Foundation Inspiring Improvement. 90 Long Acre, London WCE2E9RA

Lucas, A. O. and Gilles, H. M. (2003). Short Textbook of Public Health Medicine for the Tropics. CRC, Press.

Maiman, L. A. and Becker, M. H. (1974). The Health Belief Model: Origins and Correlates in Psychological Theory. Health Education Monographs. 2; 336-353.

Metiboba, S. (2009). Primary Health Care Services for Effective Health Care Development in Nigeria: A Study of Selected Rural Communities. *Journal of Research in National Development,* 7(2).

Mojekwu, J. N. (2005). Maternal Mortality: Natural Risk to Women. *Ghana Journal of Development Studies,* 2(1); 129-141.

Mojekwu, J. N. and Ibekwe, U. (2012). Maternal Mortality in Nigeria: Examination of Intervention Methods. *International Journal of Humanities and Social Science.* 2(20); 135-149

Nigeria Constitution (1999). Section 7(1) C as Amended.

Ogbonaya, R. and Aminu, M. (2009). Nigeria: North-West Battling Malnutrition, Child and Maternal Mortality. This Day. All Africa.com. Retrieved on 09/05/2020

Ogu, R. N. and Ephraim-Emmanuel, B. C. (2018). Prevention of Maternal Mortality in Nigeria: Public Health to the Rescue. *Journal of Gynecology and Women's Health*. 10(1); *10.1019080/*JGWH. 555780

Ogunjimi, L. O., Ibe, R. T. and Ikorok, M. M. (2102). Curbing maternal and child mortality: The Nigerian experience. *International Journal of Nursing and Midwifery,* 4(3); 33-39.

Olalubi, O. A. and Bello, I. S. (2020). Community-Based Strategies to Improve Primary Health Care (PHC) Services in Developing Countries. Case Study of Nigeria. *Journal of Primary Health Care and General Practice.* 4(1); 30.

Olopade, F. E. and Lawoyin, T. O. (2008). Maternal Mortality in a Nigeria Maternity Hospital. *African Journal of Biomedical Research.Ibadan Biomedical Communications Group.* 11; 267-273.

Omo-Aghoja, L.O., Aisien, O. A., Akuse, J. T., Bergstrom, S. and Okonofua, F.E. (2010). Maternal Mortality and Emergency Obstetric Care in Benin City, South South Nigeria. *Journal of Clinical Medicine and Research.* 2(4); 55-60.

Prata, N., Gessessew, A., Abaha, A. K., Holston, M. and Potts, M. (2008). Prevention of Post-Partum Hemorrhage: Option for Home Births in Rural Ethiopia. *Africa Journal Reproductive Health,* 13(2); 87-95.

Rogan, S. E. B. and Olvena, M. V. R. (2004). Factors Affecting Maternal Health Utilization in the Phillipines. A Conference Paper Presented at the 9th National Convention on Statistics (NCS) EDSA Shangri-La Hotel on October 4-5th, 2004

Rosenstock, I. M. (1974). Historical origins of the Health Model, Health Education monograph 2: 328-335, 1974. Google scholar.

Senah, A. (2003). Maternal Mortality in Ghana: The other side. Research Review NS 19(1); 47-55.

The Partnership for Maternal, Newborn and Child Health (2011). A Global Review of the Key Interventions Related to Reproduction, Maternal, Newborn and Child Health (RMNCH). The Partnership for Maternal, Newborn and Child Health. Geneva, Switzerland.

Ujah, A. O., Aisien O. A., Mutihir, J. T., Vanderagt, D. J., Glew, R. H and Uguru, V. E (2005). Factors Contributing to Maternal Mortality in North-Central Nigeria: A Seventeen-year Review. *African Journal of Reproductive Health.* 9(3); 27-40.

UNDP (2003). Human Development Report 2003; Millennium Development Goals: A Compact among Nations to end Human Poverty. New York - UNDP.

UNFPA (2006). Expectation and Delivery: Investing in Midwives and others with Midwifery skills. Maternal Mortality Update 2014. www.unfpa.org/publications/maternal-mortality-update-2014.

Vincent, C. A. and Coulter, A. (2002). Patient Safety: What about the Patient? Quality and Safety in Health care, 11(1): 76-80

World Health Organization (2008). The World Health: Primary Health Care (now more than ever). Geneva: World Health Organization; 2008.

World Health Organization (2012). Declaration of Alma Ata Report on the International Conference on Primary Health Care, World Health Organisation, September 1978. Available Online at http://www.who.int.

Yar' zever, S. I. (2014). Temporal Analysis of Maternal Mortality in Kano State, Northern Nigeria: A Six-Year Review. American Journal of Public Health Research 2(2): 62-67