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# HEALTH CARE DELIVERY AND THE PREVALENCE OF CHILD AND MATERNAL MORTALITY RATES IN JOS-NORTH LGA, PLATEAU STATE, NIGERIA

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**ABSTRACT**

The first five years of life are the most crucial to the physical and intellectual development of children and can determine their potential to learn and thrive for a lifetime. For young children, every single day counts. However, just as the first five years of life of a child are crucial, so is the life of the mother during pregnancy, child delivery and even after delivery, this is because pregnancy outcomes rank among the most pressing reproductive health challenges all over the world. Globally, an annual estimate of 600,000 women of reproductive age died of pregnancy with Nigeria accounting for well over 10 percent of this figure; this is why Nigeria holds the enviable second position of infant and maternal mortality only behind India. The challenges that we face regarding the health of Nigerian infant/children and their mothers cannot be put off, and they are

**KEY WORDS:**

*Politics, health care delivery and child and maternal mortality.*

*Introduction*

Infant mortality is defined as the number of infant deaths (one year of age or younger) per 1000 live births (WHO, 2014). Maternal mortality refers to the death of women while pregnant or within forty-two days after delivery or termination of pregnancy excluding accidental causes of death (WHO, 2014). For any woman who succumbs to maternal death, many more will suffer injuries, infections and disabilities brought about by complications such as obstetric fistula. This is commonly known as vesico-virginal fistula (VVF), a hole in the birth canal that allows leakage from the bladder or rectum into the vagina which is a major complication from pregnancy and childbirth. This is usually a problem of young girls who marry early, often before their bodies are ready for that function.

Just as the first five years of life are the most crucial to the physical and intellectual development of children and can determine their potential to learn and thrive for a lifetime, the health of the mother is also of utmost important. Even as available data indicates that Nigeria's child survival is precarious leading to huge number of deaths particularly in the first month of life, it also indicates that maternal mortality is exceedingly high and nothing short of an obstetric carnage. For young

children and the mothers, every single day counts. The challenges that we face

regarding the health of Nigerian children and mothers cannot be put off, and they are not insurmountable. Nigeria's population is largely rural, with 63.7 percent of the population living in rural areas. Currently, about 45 percent of Nigeria's total population is less than age 15, with about 20 percent (24million) under age five. The sheer numbers involved, therefore, demand that child survival issues be placed in the forefront of the national agenda.

Child and maternal survival in Nigeria is threatened by nutritional deficiencies and illnesses, particularly malaria, diarrheal diseases, Acute Respiratory Infections (ARI), and Vaccine Preventable Diseases (VPD), which account for the majority of morbidity and mortality. There is need for an enabling environment through well-articulated policies, projects, and programmes' to ensure wholesome development of Nigerian infant/maternal and enhance the beauty of life. Infant and child mortality rates are exceedingly high, and Nigeria ranks 15$^{th}$ highest in the world among countries with high under-five mortality (UNICEF, 2001). With more than one million children dying annually from preventable diseases, Nigeria is one of the least successful of African countries in achieving improvement in the past four decades, in spite of advances in universal immunization and oral- rehydration therapy (ORT) for diarrheal diseases, and the wealth of Nigeria's human natural resources.

*The Concept of Health*

The concept of health has become a major concern to both government and the citizenry, even scholars in the field of medicine, nursing, psychologist, education, psychiatry, social work, sociology etc have for a long time chosen it as a subject of academic discourse.

Health in modern societies is strongly influenced by it modern times. Explanations for events such as illness are rarely understood, for example, in religious terms, at least not by the majority of lay people in countries such as UK and the USA, though such ideas may be prevalent in particular communities. Medical information is disseminated and available in numerous ways today, especially through television, the Internet and other media. If the development of an individualistic medical model has shaped understanding and experience of health, then modern cultures have been equally conducive to its widespread acceptance. It would be surprising, under these circumstances, to find an entirely separate system of 'folk beliefs' about illness, shaped by a non-medical culture.

At the same time, enough has already been said on indicate health, illness and medicine refer to a wide range of events and experiences, and ideas about these are bound to contain tensions and contradictions, as well as ambivalence about the role of medical treatments in dealing with them (William and Calnan, 1996). Sociological research on concepts of health has provided important insight into

the complexity and sophistication of views about such matters. Whilst this work has shown the widespread inclusion of medical messages about health, it has also shown how this is translated and reconciled with other areas of life, and assessed against alternative sources of information. Modern ideas about health and illness can also draw earlier notions, such as the need for 'balance' in sustaining well-being.

In the first place it needs to be recognized that health may be an overriding concern to health care professionals and researchers, including medical sociologists. In his study of risky behaviour and HIV, Bloor (1995), for example, drawing on the writings of Alfred Schutz, distinguished between 'the world of routine activities' and 'a world of considered alternatives and calculative action' in interpreting how health risks were perceived by his respondents. Bloor's study reinforces the view that daily life presupposes health, unless it is threatened by events of information that draw the people into considering alternatives. Health risks vie with the routine nature of daily life, with its own pressures and pleasures, constraints and potentialities. Those concerned with health promotion (as opposed to the treatment of illness) who wish to encourage people to become more health-conscious have to face this issue in doing so. Health is not necessarily a pressing and overriding value, consciously considered on a daily basis. Information on health risks is actively interpreted within specific social contexts (Alaszweski & Horlick-Jones, 2003).

*Theoretical Framework*

Health is an exquisite but often misconstrued perception. The health treatise in Nigeria has been that which is often concern with hospitals and drugs, little attention is given to the conditions which make drugs and hospitals necessary. The Medical and Materialist perspective of health are two competing arche types used by these authors to address the issues of Health care delivery, child and maternal mortality and what can be done about them.

*The Medical Perspective*

Much of what contemporary populations think about health and illness, and much of the focus of research – including health-based sociological research, is strongly influenced by the prevailing medical model. In most public debates, the medical approach remains central.

It is said that the medical perspective of health is a negative one: that is, that health is essentially the absence of disease. Despite bold attempts by bodies such as the World Health Organization (WHO) to argue for a definition of health as 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity', most medically related thought remains concerned the disease and illness. This is hardly surprising, given the fact that people turn to

medicine in times of trouble, not when they are feeling well. It has also been found that promotion of positive health, whether by doctors or 'health promoters', competes with other valued goals, for individuals and for societies as a whole. Matters become even more complicated when it is realized that the presence of 'disease or infirmity' does not, in any event, mean that people always regard themselves as unhealthy. The phrase 'complete well-being' remains elusive as it is positive, and health, illness and medicine are related in complex ways. The medical model of health, though often charged with 'reductionism', at least has the attraction of cutting through some of these knots.

Doctors now claimed exclusive jurisdiction over health and illness, the warrant of medical model of disease as their support. This situation meant that modern citizens were increasingly encouraged to see their health as an individual matter and their health problems as in need of attention of a doctor. It is this Foucault (1973) saw as constituting the 'medical gaze' which focused on individual and on processes on inside the body – its 'volumes and spaces'.

This 'gaze' (extended in due course to health-related behaviours) underpinned the development of the modern 'doctor-patient' relationship, in which all authority over health matters was seen to reside in the doctors' expertise and skill, especially as show in diagnosis. This meant that the patient's view of illness and alternative approaches to health were excluded from serious consideration. Indeed, the patient's view was seen as contaminating the diagnostic process, and it was better if the patient occupied a passive role. It is for this reason that the 'medical model' of disease has been regarded critically in many sociological accounts.

Health is frequently conceived as a medical issue and reduced to provision of medical care. This paradigm comes from development of bacteriology, especially the work of Louis Pasteur with anthrax and cholera. The medical model conceives health as a biophysical malfunctioning which disrupts the body's equilibrium. Such malfunctioning is caused by germs and other bacteria (Rossdale, 1965; Turshen, 1977a; McKeown, 1979).

This conception of health was further reinforced by restructuring of the medical education in the USA and Canada about 1910-1915 (Brown 1979; Starr 1982) which stipulated training in the laboratory based on sciences to be followed by supervised clinical tutelage of unspecific content and duration. The utility of medical practice was then limited as the capacity to cause harm and heal were equal (Brown 1979; Starr 1982). Heroic medicine**,** as it was then called, used procedures like purging, blistering and bleeding with an instrument called the lancet. It is not accident that the oldest and most respected medical journal in the world took that name. This restructuring of medical curriculum radically changed the situation which turned medicine from craft to the profession of high status and

income (Alubo, 2010). It pushed medicine beyond the poor both in terms of opportunity for medical education and access to doctors' services. This is the brand of medical training that was imported into Nigeria and other developing countries. As Alubo (2010) noted, that the internalization of the curriculum has contributed to the respect for Nigerian trained doctors but has also facilitated the brain drain.

It must be noted that continued reference to Hippocrates as the intellectual; ancestor of modern medicine (there is for example the Hippocratic Oath) is, in some sense, contradictory. This is because the current individualistic-mechanic conception is different from Hippocrates' who viewed health as a relationship between the individual and the environment, including the political economic (Alubo, 2010). According to Hippocrates:

> *Health means a healthy mind in a health body and can be achieved only by governing daily life in accordance with natural laws which ensures equilibrium between the forces of the organism and those of the environment (Dubos 1965:323).*

Through the medical conception, health care has become equated with medical care and policies have stressed the intensification of curative medical services (Alubo 1985a, Erinosho, 1982). Other aspects of health such as preventive and rehabilitative dimensions are ignored. Politicians are comfortable with medical perspective and the policy thrust has revolved around training of more personnel to achieve a better practitioner-patient ration, building of more clinics, hospitals and treating centres and expanding existing ones (even when the existing facilities are in crisis and emaciated), and procurement and better distribution of drugs equipment's and other materials (Federal Governments in Nigeria 1981, 2005)

There are hardly questions about the impact of this perspective on health problems. The issue is how medical care can solve problem whose root causes are political and economic. The common diseases in Nigeria are nutritional such as kwashiorkor and marasmus; parasitic like malaria and water borne such as cholera and guinea worm, all of these diseases have accounted to the high prevalence of infant and maternal mortality in Nigeria. How can cure to these conditions be achieved without attending to the root causes? Better understanding of the root causes of these illnesses which has to do with environment and health care in general need to be given attention. These are the factors that causes the high rate of mortality in any given society especially Nigeria and most especially among infants/children and nursing mothers, hence, attention should be given to health care delivery instead of medical care.

Equally important is the distinction between cure and care, there is a huge imbalance in health investment in favour of cure. This is a deliberate ideological

strategy for as Navarro and others (Kelman 1972, Turshen 1999) long argued, reducing problems of political and economic origins to medical problems of political and economic origins to medical problems serves an important legitimacy function for the capitalist system:- makes people believe that structural problems can be resolved through the individualist approaches of modern medicine. It diverts attention from poverty and deprivation, the resolution of which will pose threats to the accumulation process. This is because,

> *By situating the diagnosis and treatment of diagnosis and treatment of disease at the level of the individual, (medicine) provided the ruling class with a means of social control: patients would fail to make common cause with each other or to protest the external, underlying conditions that make them ill. The effect is to depoliticize malnutrition, alcoholism, drug addiction and mental illness defining them as medical problems (Turshen 1977:57)*

The medical paradigm remains the guiding principle of health which has informed Nigeria's health care policy and practice. There are regular references to health care delivery, as if, in the words of Aron Wildavsky, "the welcome wagon was supposed to roll up to the door and deliver health wrapped in a neat package" (Wildavsky 1977:112). In the illusionary pursuit of health care delivery over 80 percent of health budgets has consistently gone into curative medicine (Alubo 1985a). Whether such huge investments yielded the desired outcome is immaterial – perhaps because of the under the table payment which accompany the investments in contracts for hospital construction and supply for drug equipment.

Thus from the medical approach to health, it can be seen that more emphasis is been laid on the provision of medical health care (which is curative in nature) instead of health care delivery (which is preventive in nature). This makes government forget the root causes or the major factors responsible for illness and rather pay more attention on curing these illnesses that should have been prevented. All factors responsible for infant and maternal mortality in Nigeria have been proven to have a direct link with the environmental or and living standard of the society, but government have decided to concentrate its energy and resources on the building of medical centres such as hospitals and the training of doctors, nurses etc to attend to infant maternal related issues instead of providing the basic necessities for the prevention of such diseases.

*The Materialist Perspective*

The materialist conception of health explicates the relationship between class and health care. It emphasises the role of economic and associated socio-cultural factors in distribution of health and well-being. This perspective is affixed on this

fundamental assumption: health is part and parcel of society within which individual lives, has a being; reproduces him/herself and relates to other human beings in these processes health is experimental and holistic, rather than being a commodity which can be bought and sold (Alubo, 2010).

From the outset, the focus is holistic, total and socio-political rather than mechanistic, individualistic or biophysical. According to Sander Kelman (1977:8), the materialist conception of health:

> *Begin(s) with the axiom that human beings are the basis of both forces of production (physical ingredients of production , such as labour, resources and equipment) and the relations of production (division of labour, legal property and social institution and practices) in any society and therefore appropriate human organismic conditions (i.e. 'health') can only be understood in the correct text of the particular mode of organization of production and the dialectical relationship between the productive forces and relations (cited in Alubo, 2010:13)*

There are many separate strands of reasoning within its explanatory rubric which can be more or less ordered according to the extent to which the primary causal significance is assigned directly or indirectly to the role of economic deprivation or poverty linked to the inevitability of economic exploitation. Those associated with such approach see health or physical welfare of people as a key dependent variable determined by the system of production which is dependent on the unequal distribution of resources as well as inherent tendency to promote material inequality in health as well as poverty between human beings. So conceived, health is inseparable from the political condition under which people live, meet (or fail to meet) their daily needs and reproduces life (Turshen 1977a; Navarro 1976).

For this material conception, bio-physical malfunctions are important not in their own rights, but for the politic-economic contradictions they symptomatize. *Kwashiorkor,* for instance, is only the bio-physical manifestation of the contradictions in the same social relations of production which cannot guarantee adequate nutrition. Similarly, worm related infections and water-borne conditions are not really the disease. The real problem is the nature of the society and individual's location within it. The disease arises from the political economy of reward structure which benefits some while placing others at a disadvantage. Those places at a disadvantage are left at the mercy of the rich, hence making them more prone to high risk of mortality.

The materialistic conception of health is not new, it is only long ignored (Alubo 2010). As far back as the 12$^{th}$ century, long before the discovery of bacteria and its

derivation, the germ theory, the relationship between low socio-economic status and low life expectancy for all courses was observed (Syme and Berkman 1981:35). An illustration of the material interpretation provides the explanations not only for susceptibility to disease but to individuals' responses. The last point is starkly brought home in Earl Koos' classic book, The Health Region ville, which is a community reaction to sickness and illness. Koos quoted a woman as saying 'how I wished I knew what you mean about being sick. She said she sometimes felt she would curl up and die but cannot afford the luxury to be sick because there was no money for the doctor' (cited in Alubo, 2010).

Class and class relations bear on who becomes sick and types of sickness: diabetes and gout are found more among the middle and upper classes, just as kwashiorkor and stunting are common among lower classes. Even malaria has a class character because the mosquito vector is egalitarian in biting the rich and the poor but the latter succumb more frequently to malaria (Alubo 2010). Class or socio economic status also determines access to available care.

The situation is blamed on the increasing poverty and weakness of the 'health care system'. It is here observed that what is described as the health care system is essentially the various levels of medical care system (Alubo, 2012). Most of the causes of deaths and serious illnesses, which occur among Nigerians, can be treated with simple remedies... communicable diseases are... often compounded by malnutrition (Health Policy, 2006). Thus, this shows the power play between the upper class even in terms of who get ill and what kind of illness.

The materialistic conception classically explain the dire situation of infant and maternal mortality in Nigeria, as many researchers have shown that infant and maternal mortality is high among the lower class (poor) than among the upper class (rich), this is largely because they (the rich) have more access to both medical and health care services than the poor who barely have enough to afford three square meal a day, not to talk of affording a balance diet.

*Methodology*

The study design used in this study was the survey method. This was preferred because of its explicit rules and procedures in gathering information about a large population. The primary source of data collection was used to generate data from the study. Structured Questionnaires was designed for the women and health workers respondents and was purposively administered. This is due to its relative advantage in terms of time utilization, cost involved in the gathering of information and its reliability.

The questionnaire consisted of two parts. Part A consisted of the socio-demographic characteristics or bio-data of the respondents. While part Bdealt

with issues relating to the research problem. It is believed that responses from both women (who are/were mothers) and health workers would guarantee effective representation of their experiences and views on the research problem. Furthermore, Academic journals and textbooks also formed parts of the secondary data.

For this research work however, the sample used was two hundred (200) women or respondents. Two hundred questionnaires were administered to willing respondents within the study area but 184 were completed and returned. The questionnaire was largely administered in most of the private hospitals within the area understudy due to the fact that all or most of the government owned Secondary and Tertiary Health Care centres in the state have either been on a prolonged industrial strike or not functioning to optimal capacity. The distribution of the questionnaire was made during ante natal days in those Clinics and hospitals. The study focused in areas within Jos metropolis such as Tudun-Wada, Ali–Kazaure, Angwan Rukuba,Gangare, Nasarawa Gwong and Jenta-Apata. The respondents cut across ethno-religious groups resident in Jos.

*FINDINGS*

Descriptive statistics was used in the presentation of the results obtained using questionnaire. Frequencies and percentages were generated from the quantitative data drawn from 184 respondents. The first section deals with the bio data or socio-demographic characteristics of the respondents such as age, education, occupation, monthly income, number of children, years of marriage, age at which the respondents got married and the number of children lost during or after delivery. The second section covered further analysed issues of health care delivery and the prevalence of child and maternal mortality as presented in the following tables.

Table 1: Distribution of Respondents by Age

| **Age in Years** | **Frequency** | **Percentage (%)** |
|---|---|---|
| 18 – 24 | 35 | 19 |
| 25 – 30 | 68 | 37 |
| 31 – 35 | 44 | 24 |
| 36 – 40 | 26 | 14 |
| 40 – above | 11 | 6 |
| **Total** | **184** | **100** |

**Source: Field survey, 2014**

From table 1, most of the respondents lies between age 25–30, (37%, n=68). Followed by those between ages 31–35, accounting to (24%, n=44). Others include those within the age range of 18 – 24, (19%, n=44). Those within the age range of 36 – 40 accounts for (14%, n=26) of the total respondents, and finally those within the age range of 41 – above accounts for only (6%, n=11) of the total respondents. The implication of this can be seen that a large percentage of the total respondents are within child bearing age hence aptly in the position to respond to the subject matter of this study.

Table 2: Distribution of Respondents by Educational Attainment

| **Education** | **Frequency** | **Percentage (%)** |
|---|---|---|
| Primary | 15 | 8 |
| Secondary | 80 | 44 |
| Tertiary | 85 | 46 |
| Non | 4 | 2 |
| **Total** | **184** | **100** |

**Source: Field survey, 2014**

From table 2, it can be seen that an impressive (46%, n=85) of the total respondents are educated up to the tertiary level, 80 respondents which accounts to 44%, of the total respondents have attained secondary education, (8%, n=15) of the respondents have just a primary school certificate and only 4 of the respondents which accounts to only 2% of the total respondents have no any form formal of education. It can be deduced from the table that a significant number of the respondents have attained one level of formal education or the other, with a significant number having attained the secondary and tertiary levels of formal education.

**Table 3: Distribution of respondents by Occupation**

| **Occupation** | **Frequency** | **Percentage (%)** |
|---|---|---|
| Housewife | 52 | 28 |
| Petty Trader | 36 | 19 |
| Business Woman | 33 | 18 |
| Civil Servant | 47 | 26 |
| Others | 16 | 9 |
| **Total** | **184** | **100** |

**Source: Field Survey, 2014**

From table 3, a significant number representing (28%,n= 52) 0f the respondents were housewives, 47 respondents (26%) were civil servants, (19%, n=36) of the total respondents were petty traders, (18%, n=33) of the respondents were business women, while 16 respondents which accounts for 9% are engaged in other economic activities for their means of livelihood. However, despite the fact that an impressive number of women (26%) from the above table are civil servants, many more lies within the category of those who are housewives (28%), business women (18%), and petty traders (19%) who engaged in petty trade in order to fend for and feed their families.

**Table 4: Distribution of Respondents by Monthly Income**

| Income (₦) | Frequency | Percentage (%) |
|---|---|---|
| 5,000 – 10,000 | 80 | 44 |
| 11,000 – 20,000 | 48 | 26 |
| 21,000 – 35,000 | 28 | 15 |
| 36,000 – 50,000 | 15 | 8 |
| 50,000 – above | 13 | 7 |
| **Total** | **184** | **100** |

**Source: Field survey, 2014**

From table 4, majority of the respondents (80) which accounts to 44% of the total respondents earned a monthly income between ₦5,000 – ₦10,000, this is largely due to the fact that most of the respondents were either housewives or petty traders, 48 of the respondents which accounts for(26%, n=48) of the total respondents earned a monthly income ranging between ₦11,000 – ₦20,000, (15%, n=28) of the respondents earned a monthly income between ₦21,000 – ₦35,000, (8%,n=15) earned a monthly income of between ₦36,000 – ₦50,000, and a few 13 respondents which accounts for 7% of the total respondents earned a monthly income of between ₦51,000 – above. Thus, this largely explains the poor socio-economic status of most women which to a large extent, contributes to access to good health care and the prevalence of child and maternal mortality.

*Child and maternal mortality*

This section analyses all the questions on infant and maternal mortality asked and the responses of the respondents. The analysis of the data obtained is presented below.

*Socio-economic status of parents influences access to healthcare and child and maternal nutrition.*

The study found out a strong relationship between socio-economic status of parents and child and maternal mortality especially in Jos North, this was affirmed

by 61% of the respondents who strongly agree to this fact, this is because a mothers income or socio-economic status determines the kind of nutrition she gets during pregnancy and even after delivery, and also determines her children's nutritional value. It also informs the choice of quality health care healthcare service they get.

*Educational attainment of a mother determines access and quality of health care she and her child(ren) get.*

A relatively strong relationship exist between educational attainment of parents and health care delivery, this is because educated parents are not ignorant, and are likely to attain ante natal during pregnancy and post natal care even after delivery, most educated women has a good occupation and a considerable amount of higher monthly income than those with little or no form of formal education, thus, this determines access to health care services. The study shows that educational attainment of a mother is more likely going to influence her decision to seek proper health care during pregnancy, child birth and after delivery. This is because 111 of the total respondents (60%) strongly agree to this fact. An educated woman tends to seek proper health care during pregnancy, delivery and even after delivery compared to the uneducated women.

*A poor sanitary environment with no or poor social amenities increases the risk of child and maternal illnesses and death.*

It is evident and obvious that a poor sanitary environment with non or poor social amenities increase a high chance of child and maternal illnesses and death, form the study quiet a number of the respondents either strongly agreed or agreed to the fact that environmental conditions such as unhealthy environment with no or little social amenities such as potable drinking water, stagnated water which breeds mosquitoes that in turn causes malaria, becomes a major cause of child and maternal morbidity and mortality.

*Women awareness and empowerment and an improvement in their living standard will reduce the high risk or prevalence of child and maternal mortality.*

Women awareness and empowerment and an improvement in their living standard will reduce the high risk or prevalence of infant and maternal mortality, this was confirmed in this study as most of the respondents (88%) strongly agreed to this fact. Thus this indicates that the high risk and prevalence of infant and maternal mortality can be reduced to the barest minimum only if women awareness and empowerment and an improvement in their living standard are ensured. .

*Solutions to the Problems Identified*

This study was able to get some possible solutions to the problems of infant and maternal mortality in Jos North from the respondents, table 4.6 below provide some of the possible solutions.

**Table 5: Ways to reduce the causes and prevalence of child and maternal mortality.**

| Responses | Frequency | Percentage (%) |
|---|---|---|
| Free ante-natal and post-natal care | 76 | 41.3 |
| Women Empowerment and Education | 59 | 32.1 |
| Building of New health care centres and training of personnel | 23 | 12.5 |
| Provision of Basic Social Amenities. | 26 | 14.1 |
| **Total** | **184** | **100** |

**Source: Field survey, 2014**

From the above table 4.21, 76 respondents which represents 41.3% of the total respondents are of the opinion that if ante-natal and post-natal care is been made free in all hospitals and clinics, it will go a long way in reducing the prevalence of infant and maternal mortality in Jos North, 32.1% of the total respondents advocate for women empowerment and education, 12.5% of the respondents believed that building new health care centres and the training of health personnel like midwives will go a long way in curbing the prevalence of infant and maternal mortality in Jos North, however, 26 respondents (14.1%) are of the view that the provision of basic social amenities will reduce the much cases of infant and maternal mortality.

From the above, it can be seen that a significant number of the respondents are of the view that infant and maternal mortality can be reduced if both private and public hospitals render such services free to enable all women have access to it. Infant and maternal mortality are one of the very dark spots in Nigeria's health profile. Major causes of death among women in Nigeria are pregnancy-related. Information on the extent to which women in Nigeria receive care during pregnancy, during delivery, and a few weeks after delivery presents a picture of the health care available to mothers and the new born. Such care is also critical for the survival and well-being of both mother and child.

The research work is carried out in Jos North Local Government Area of Plateau State, it is aimed at looking at health care delivery and the prevalence of infant and maternal mortality in Nigeria, with this, the research looked at the prevalence, factors, causes and possible solutions of infant and maternal mortality.

The research finds out that most of the women or respondent are either petty traders or housewives, hence most of them have a monthly income of ₦5, 000 – ₦10, 000, thus, this income is barely enough to enable them get quality access to health care delivery and good nutrition during pregnancy and after delivery, this in turn leave their children malnourished and more prone to morbidity and subsequent mortality.

In this study, it is seen that socio-economic status of parents influence access to health care delivery and also the type of nutrition a mother and her child get. This is because of the cost involve in quality health care delivery as argued by the respondents, thus it said that children born in poor families are at high risk of morbidity and mortality than those born in rich homes or families, also mothers whose socio-economic status is high can afford the basic nutrition needed during pregnancy and even after delivery.

Another outstanding finding of this study is that the educational attainment of a mother determines health care of the mother and her child; this is because she is not ignorant of what she ought to do during pregnancy and after delivery. Educated mothers are more likely to visit the hospital during pregnancy for ante natal, natal and post natal care than those without any form of education. It is also seen that the educational attainment of a mother to a large extent determines her occupation and also her monthly income. Therefore, the educational attainment of a mother is a major factor in infant and maternal mortality.

Finally, this study was able to find out also the fact that environmental factors also affects or influence child and maternal mortality. It is found out that a poor and unhealthy environment with little or no access to social amenities like potable drinking water will to a large extent affect infant and maternal survival, this is because a dirty and unhealthy environment is likely going to breed mosquitoes, and malaria which is caused by mosquitoes have been identified as one of the killer disease in infant/children.

## *Conclusion*

The study examined health care delivery and the prevalence of child and maternal mortality rates in Jos North LGA of plateau state. Child and maternal mortality can be attributed to factors such as educational, socio-economic and environmental factors. This factors have been found to be major causes of infant and maternal mortality in Jos North and Nigeria in general, the study shows that most of the women only have a secondary school certificate and most of them are either housewives or petty traders, hence don't have the financial capacity to seek better health care during pregnancy and after delivery and also cannot afford the required nutrition needed for their children and themselves after delivery. The number of mothers in Nigeria who die in the cause of pregnancy and childbirth is unacceptably high, as is the number of infants born in Nigeria who do not live to their first birthday. For the majority of these deaths, the medical causes are well understood and there are effective preventive strategies available. Urgent health system and socio-economic interventions should therefore be put in place to reduce maternal and child mortality rates in Nigeria.

### *Recommendations*

The following recommendations are derived from the findings of this work and also from the responses of respondents. The following are recommendation that if

taken into consideration, will reduce the prevalence of infant and maternal mortality in Jos North and Nigeria at large.

i) Women should be empowered economically in terms of employment opportunities and also material empowerment to help them be able to seek quality antenatal and post natal care during pregnancy and after delivery.

ii) The Mother-New born-Child Continuum of care should be adopted; this has to do with the core principle underlying the strategies to develop maternal, new-born and child care programmes. Care has to be provided as a continuum throughout the life cycle and in a seamless continuum that spans the home, the community, the health centre and the hospital. This will save lives of many women, new-borns and children.

iii) There should be increase effectiveness and utilization of antenatal care, this is due to the importance of Antenatal and post natal care which is a variable package of screening (through clinical evaluation and investigations) and treatment for pregnant women with the prime objective of prevention, early detection and treatment of complications in the mother and foetus, and the ultimate goal of optimizing maternal and perinatal health.

iv) It is however important to note that ante-natal and post natal care as identified above should be made free of charge in both private and public health care centres and hospitals, and such services should also be accessible to the general public or to all pregnant women.

v) Government should provide a clean and healthy environment, and also be able to provide basic social amenities in all communities in country such as potable drinking water, and also creating awareness on keeping the environment clean and free from stagnated water which may breed mosquitoes leading to other diseases.

vi) The presence of midwives and skilled birth attendant at childbirths is a very effective intervention for reducing maternal mortality and new-bornmortality, therefore, government should make a deliberate effort in training and retraining of midwives and traditional birth attendants which should be posted to every nook and cranny of the country including rural areas for effective delivery.

vii) The need to address childhood and motherhood malnutrition in a holistic sense, to positively affect child and maternal survival and development as well as eradicate childhood disease in a sustainable manner cannot be overemphasized. Adequate childhood and maternal nutrition should be seen as an outcome of several related factors in the family, community and society, not just a process in the child's body. The nutrition of the mother is also of utmost importance for her

viii) If the $4^{th}$ and $5^{th}$ Millennium Development Goal are to be attained and sustained, the structures on the successful immunization programmes depend, chiefly the primary health care system must be revitalized. There is also a need to promote local research into the demand-side of immunization services such as missed opportunities, factors that affect uptake knowledge and attitudes of community members to immunization.

*References*

Alubo, S. O. (1985a). *Underdevelopment and Health Care Crisis in Nigeria*. Medical Anthropology 9 (4): 319-335.

Alubo, S. O. (1987). *Power and Privileges in Medical Care: An Analysis of Medical Care in Post-Colonial Nigeria*. Social Science and Medicine 24-5: 453-462.

Alubo, S. O (2010). *In Sickness and in Health: Issues in the Sociology of Health in Nigeria*, University of Jos Inaugural Lecture Series No. 41.

Alubo, S. O, and Ibanga, A. (1994). Household Reactions to Diarrhoea in Plateau State. *Nigerian Journal of Pediatrics* 21 (Suppl): 111-120.

Alubo, S .O. and Franklin Vivekananda (1995).*Beyond the Illusion of Primary Health Care in an African Society,* Stockholm: Bethany Books.

Caldwell, J. C. (1979). *Education as a Factor in Mortality Decline*: *An Examination of Nigerian Data*. Population Studies, 33(3), 395-413. Http.//dx.doi.org/10.2307/2173888.

Erinosho, O. (1982). Health Planning in Nigeria, *Nigerian Journal of Sociology and Anthropology.*

Federal Government of Nigeria. (1986). *The National Policy and Strategy to Achieve Health for All in Nigeria,* Lagos Federal Ministry of National Planning

Harrison, K. (1997). Maternal Mortality in Nigeria: The Real Issues, *African Journal of Reproductive Health*, 1(1): 7-13.

HERFON. (2006). *Nigeria Health Review 2006 Abuja*: HERFON.

Koos, E. (1954). *The Health of Regionville, What the people did about it*, New York: University Press.

Mutunga, C. J. (2007). *Environmental Determinants of Child Mortality in Kenya*. UNU-WIDER Research Paper No. 2007/83. Helsinki: United Nations University World Institute for Development Economic Research.

NDHS. (2008). Nigerian Demographic and Health Survey.

Strong, M. A. (1992). *The Health of Adults in the Developing World*: The View from Bangladesh, Health Transition Review 2(2):215-224.

Turshen, M. (1977).*The Political Ecology of Disease*. Review of Radical Political Economy 9(1): 45-60.