Article

Barriers to Health Care Utilisation among Women in Rural Communities in Nigeria

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Abstract
Despite the fact that access to healthcare services is a prerequisite to good health, rural residents faces variety of barriers in accessing healthcare, due to inadequate health care facilities in the rural areas. However, lack of functional healthcare facility remains the public health concern and this has been one of the factors responsible for high rate maternal mortality which is preventable if the facility is accessible for pregnant women for both ante-natal and post-natal attendance. This study examined the barriers women faced in utilising healthcare facilities. Methodologically, the authors made use of secondary sources of data where relevant empirical literatures were reviewed to assess the barriers in utilization of healthcare facilities in rural areas. The study revealed that many of the healthcare centers, apart from lacking adequate medical personnel, also lack essential drugs and consumables. It was concluded that, to enhance utilization of healthcare services, there must be capacity building and empowerment of people within the community through orientation, mobilization and women empowerment. The study recommended that easy accessibility to healthcare centers by women in rural communities requires strong political will and commitment of the government at all levels.

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Introduction

Utilization of healthcare services serves to improve the health status of the rural populace. Studies have shown that the presence of healthcare facilities is not enough to guarantee their use as other socio-economic factors could influence access and utilization. Majority of women who utilise health care facilities are not ill, and as pregnancy is a frequently and uneventful physiological process, it is logical to imagine that, given the slightest constraints, maternal health facilities would be underused. The main objective of maternal health care is to ensure that expectant and nursing mothers have normal delivery, bear healthy children and maintain good health. Low healthcare utilization is often a reflection of poor quality of services and poor attitude of staff (Sule, Ijadunola, Onayade, Fatusi, Soetan, Connell, 2008 in Adam & Awunor, 2014). The high level of mortality, and morbidity which accounts for 157 deaths per 1000 live births (National Development Health Survey [NDHS], 2018), non-attainment of international goals for health and survival, and the inequalities in access to health facilities are the challenges of the rural populace.

Many rural areas do not have clinics; the sick must be carried on the backs of young men or on bicycles to the nearest clinic. Moreover, clinics in rural areas often lack adequate equipment or trained health personnel and require payment before providing services. In the absence of health insurance, rural people are often unable to afford healthcare of any kind.

As the Millennium Development Goals came to an end in 2015 with the introduction of Sustainable Development Goals (SDGs) for 2016-2030, there remains unfinished business in maternal and child health in Sub- Sahara-Africa (Global Development, 2014). The statistics with reference to sub-Saharan Africa are startling. Recent statistics from the United Nations Inter-Agency Estimates indicate that from 1990 to 2015, the global maternal mortality ratio declined by 44% from 385 deaths to 216 deaths per 100,000 live births (UNICEF, 2016). Although this is commendable, it is less than half the 5.5% annual rate needed to achieve the three-quarters reduction in maternal mortality that was targeted for 2015 in Millennium Development Goal 5 (UNICEF, 2016). While every region in the world experienced declines in levels of maternal mortality between 1990 and 2015, levels in sub-Saharan Africa remain unacceptably high.

The majority of maternal deaths are from preventable causes and treatable diseases (Alvarez, Gil, Hernández & Gil, 2009) all of which highlight the need for maternal and child health to remain important priorities for SDGs beyond 2015. For sub-Saharan Africa, there is a great need to accelerate the pace of progress in order to achieve the SDG target on maternal and child survival. To

achieve the SDG target of maternal mortality rate of 25 or fewer deaths per 1000 live births by 2030, a total of 47 countries including Nigeria need to increase their pace of progress by at least doubling or even tripling their current rate of reduction (UNICEF, WHO, World Bank and UN Population Division, 2015).

As the Sustainable Development Goals (SDGs) begin to guide the global development agenda, maternal health remains an area for urgent policy and programmatic attention in Nigeria. Nearly one in every four women in sub-Saharan Africa (SSA) is Nigerian. The plight of women in Nigeria will vastly impinge on the achievement of the SDGs in the region. Investing intentionally and purposefully in safeguarding maternal health in the country is a sure strategy for improving the current levels of progress and guaranteeing the future potential for growth and advancement in Africa as a whole (Adebayo 2014, Izugbara & Krassen-Coven, 2014). While the key to ensuring the quality of maternal care is a systems perspective on the provision of care and the conscious and continuous improvement of service delivery and healthcare systems (WHO, 2006), persistent socio-economic crises have resulted in misplaced priorities, inefficiencies, and a moribund health sector in Nigeria. The dismal national maternal health indicators (Cooke & Tahir, 2013) are the clearest expression of the health crisis in Nigeria. Currently, Nigeria ranks among the bottom five out of 191 countries with the poorest-performing health service delivery systems globally (WHO, 2018). Hence, this study focuses on healthcare utilization among rural women in Nigeria. The subsequent sections focus on review of literature on healthcare utilization in Nigeria,

Health Care Utilisation in Nigeria

In developing countries, the under-utilisation of health services in the public sector has been a universal phenomenon (Ibrahim, 2015). The state of the Nigerian health system is dysfunctional and grossly under-funded with a per capita expenditure of US$ 9.44 (World Bank, 2015). As a result, Nigeria still has one of the worst health indices in the world and sadly accounts for 10 percent of the world's maternal deaths. The National health management information system is weak, without an integrated system for disease surveillance, prevention and management. Research also indicates that there are high rates of absenteeism (about 40%) among medical doctors, especially in rural areas (Adam & Awunor, 2014).

According to the Federal Ministry of Health (2012), the total shares of public ownership in 2010 health facilities were 14,607 while the private sector accounted for 9,029 in Nigeria. Consequently, various Nigerian governments have made numerous great efforts toward the provision of healthcare facilities

to their populace. Notable among these efforts were the expansion of medical education, improvement of public health care systems, and provision of primary health care (PHC) in many rural areas (Ashir & Afenyade, 2013). However, overt attention has not been paid to equity in the planning and distribution of health care facilities over the years in rural areas. Public and private health care facilities are sparsely provided in many rural areas within the country. Such regions with difficult terrain and physical environment are often neglected (Awoyemi, Obayelu & Opaluwa, 2011). This makes the distance between the rural dwellers and the healthcare centres far apart, given the transportation problems experienced in these areas, and its attendant cost.

Healthcare access and utilisation are of major interest to rural development because they are vital elements of wellbeing and components of human capital (Adam & Awunor, 2014). In rural areas, where agriculture and petty trading tend to be more abundant, healthcare access and utilisation stand to be more important than education in determining labour productivity. Furthermore, every individual sees good health as a need; this makes healthcare utilisation an economic good. Good health is a need for all and the choice of a particular healthcare system responds to the laws of demand and supply, the demand for health care is a derived demand. Health care is not demanded for itself but for the advantages that can be derived from being healthy.

Many low-income countries, Nigeria inclusive, have not been able to meet the basic healthcare needs of their people, especially those in rural areas. In Nigeria, there has been a growing recognition of the challenge of rural people's health issues and the need for it to be addressed (Araya, Mark & Yohannes, 2012). There is a huge shortage of qualified practitioners in the rural areas. Accessing health care in rural areas is confounded by problems such as insufficient health infrastructure, the presence of chronic diseases and disabilities, socioeconomic and physical barriers (Awoyemi, Obayelu & Opaluwa, 2011).

Methodology

In terms of methodology, the authors made use of secondary sources where relevant empirical literatures were reviewed to unravel the problem of access to healthcare facilities in rural communities in Nigeria.

Factors Affecting Utilisation of Healthcare Facilities in Rural Nigeria

The utilisation of health facilities is a complex behavioural phenomenon which is greatly influenced by several factors. Among factors influencing utilisation of health care facilities are: poverty, education, employment, gender, information, geographical location and socio-economic and cultural structure of people among others.

Poverty and Utilisation of Maternal Health Care Facilities

Poverty may be seen as a reflection of glaring defects in the economy as evidenced in mass penury, pauperization of the working and professional class, including artisans, mass unemployment and poor welfare services. It includes the absence or lack of basic necessities of life including material wealth, commonplace, regular flow of wages and income, and inability to sustain one based on existing resources available (Ibrahim, 2015). Poverty is seen as a life in an environment where low income, inadequate work opportunities, poor housing and depressed mental and physical state are prevalent. It is also a lack of power to do anything about it. Poverty is insecurity and a lack of emotional stability (Ibrahim, 2015).

In Nigeria, poverty is widespread and severe when compared to the most recent poverty indicators, Human Development Report (2020) shows that 19.2% of Nigeria's population lives near poverty, 36.8% are in severe poverty while 40.1% are below income poverty, as such, insufficient money to pay for medical expenses serve as a barrier for treatment. Poverty limits accessibility to basic services like health. It influences negatively the ability to utilise modern health facilities, such limitations tend to cause high mortality, especially among the poor.

The effect of poverty is multi-dimensional, several studies in Ghana and Malaysia have shown that there was drastic decline in hospital births apparently as a result of the countries deepening economic crises (Arthur, 2012; Babbar, Ibrahim, Singh, 2010). If a family's total income is less than the official poverty threshold for a family of that size and composition, they are considered to be in poverty (United State Census Bureau, 2016).

Due to the high poverty level, there will be limitations to access and utilisation of health care services since the services are not totally free as it supposed to be. Even if people want to go to the hospital for their health problems the mere fact that they do not have the means to access their health will hinder them from going. This situation cut across all the regions in the country as poverty is not just peculiar to a particular region but it is more pronounced in the Northern part of the country because they are less educated.

Educational Attainment and Utilisation of Health Care Facilities

Education is a key determinant of the lifestyle and societal status an individual enjoys and it has been found to influence utilisation of health care services. A number of literature (Bloom, 2011; Navaneetham and Dharmalingam, 2012; Gymiah, Taky and Addai, 2012) argued that utilisation of maternal health care services varies with the socio-economic characteristics of the population.

These studies have shown that education is an important social variable that has a positive effect on the utilisation of health services. Therefore, it is not surprising to find that education and socio-economic status directly affect access and utilisation of healthcare services, specifically in developing countries (Bhan, Bhandari, Taneja, Mazumder and Bahl, 2015) and that education and economic status of the household are positively related with choosing to act and seek health care when ill in Zambia (Israelsk, Gore-Felton, Power, Wood & Koopman, 2011). In Uganda; Ibrahim, Sarah, Juliet and Lawson (2008) in Abdulkareem (2018) reported differentials effect of education on health care demand between public and private health care providers. Their results suggest that having some form of education is associated with a higher probability of seeking health care.

Employment Opportunity and Utilisation of Health Care Facilities

The context within which people are employed influences their use of Health Care Services. It is generally assumed that those who are working and earning money will have better financial ability to pay for health care services. However, Kawakatsu et al. (2014) argue that this will also depend on the intrinsic characteristics of the job and not simply on its income-generating power. Additionally, employment may be poverty-induced suggesting resource constraints. As a result of the contextual differences in employment, studies have presented mixed results in the association between employment and utilisation of health care facilities, especially among rural women. Several studies have found a positive association between health care use and women's formal employment suggesting that the capacity to earn could contribute to health care utilisation through empowerment (Kiwanuka, Ekipari & Peterson, 2010; Kapiriri & Norheim, 2012; Arthur, 2012 in Abdulkareem, 2018).

Employment, educational level, family income and marital status shape the use of health care services. Furthermore, income provides people with the ability to access improved nutrition and adequate housing, both of which protect and advance their health status. Some studies have found that there is a positive association between maternal health care services use and formal employment suggesting that the capacity to earn could contribute to healthcare services utilisation through empowerment (Gaje, 2007).

Financial Capability and Access to Maternal Health Care Facilities

The investigation of the relationship between financial capability and utilization of Ante-natal care (ANC) and also other factors associated with ANC utilisation in Nigeria shows that women in the wealthiest quintile were over five times more likely to adequately access and use ANC. The 2018 World Health Organization established that only 65% of pregnant women in Nigeria ever made at least one contact with a skilled ANC provider and only 59% made the WHO recommended “at least 4 visits” (WHO, 2018). Despite

free ANC in most parts of Nigeria Fagbamigbe and Idemudia (2016) found that between 2006 and 2013 economic, cultural, societal, and socio-demographic factors are the major factors affecting ANC utilisation in Nigeria.

ANC utilisation plays a dual role in the attainment of the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs). While it is one of the indicators of the MDGs on the improvement of maternal health, it also contributes to some of the indicators of MDG on the reduction of child mortality (Lincetto, Mothebesoane-anoh, Gomez and Munjanja, 2010), Office for the Coordination of Humanitarian Affairs [OCHA] (2015), World Bank (2013). Poor access and utilisation of ANC in Nigeria is a serious threat to the attainment of these MDGs and SDGs in Nigeria and the world at large.

Access and use of ANC could reduce this burden of maternal mortality, of which 99% occur in developing countries (World Bank, 2013). In Nigeria, at least four visits by a pregnant woman to an ANC facility and birth delivery by a trained and skilled birth attendant is a must (Ashir, Doctor and Afenyadu (2013). According to the Federal Ministry of Health (2013) [FMoH] and National Population Commission (2014) [NPC], the federal government has also established primary health care facilities across the country to achieve this purpose. These efforts have been complemented by state governments' programmes aimed at ensuring that pregnant women have access to qualitative ANC (Babalola & Fatusi, 2009).

In recent years, ANC has been made free in certain parts of Nigeria and was reported to have contributed to ANC utilisation in those areas. For instance, the over 95% ANC utilisation found among nursing mothers and pregnant women in some selected rural and semi-urban communities in Okitipupa Local Government Area (LGA), Ondo State, South Western Nigeria, in 2009 was attributed to the recently introduced free ANC services in the state (Akanbiemu, Olumide, Fagbamigbe and Adebowale, (2016).

With the high level of poverty in the country, financial costs could pose barriers to access and use of ANC services by some women, particularly the most vulnerable the “poorest of the poor.” Globally, the economic growth of a country has been assessed using its health outcomes; also increased national wealth has been related to improved health (Fagbamigbe, 2016). Health is central to overall well-being and wealth (Arthur, 2012). People's health and wealth status are closely related, and this relationship is bidirectional. A previously financially buoyant individual may become poor as a result of ill health; similarly, poor health may arise from being poor if an individual is unable to afford adequate basic necessities such as sanitation, health care, food, and housing (Arthur, 2012).

Gender and Utilisation of Maternal Health Care Facilities

'Gender' has often been used interchangeably with 'sex'. Gender is a social construct that refers not only to the biological 'sex' differences between men and women but to the different roles and expectations, behaviours and constraints that are placed upon an individual by culture and society, by virtue of their sex (WHO, 2014). This social stratification between the sexes leads to differential access to and control of resources. This differential treatment that men and women experience according to Allotey and Gyapong (2006 in Abdulkareem, 2018) manifests itself differently among the sexes and could help to explain some of the variations in health that we see among men and women. They further maintained that along with these societal factors, biology itself plays a role in helping to explain some of the differences that we find between men and women. Allotey and Gyapong (2006) in Abdulkareem, (2018) emphasised that as a result of men and women's inherent biological differences, women and men do not seem to suffer from the same types of diseases and do not react in the same manner to them.

Women face a greater number of unavoidable health risks, in part because of their reproductive role. However, other factors such as less access to nutrition, education, employment and income mean that women also possess less opportunity to enjoy good health (WHO, n.d in Abdulkareem, 2018). WHO affirms that women have more and different health needs than men largely because of their reproductive role, yet they have less opportunity to access health resources, from nutrition and education to health services. Women make up the majority of the unpaid and paid health workers. The social stratification between the sexes leads to differential access to and control of resources. This differential treatment that men and women experience according to Abdulkareem (2018), manifests itself differently among the sexes and could help to explain some of the variations in healthcare facility usage among men and women (Abdulkareem, 2018). WHO (2018) affirm that women have more and different health needs than men largely because of their reproductive role, yet they have fewer opportunities to access health resources, from nutrition and education to health services.

Socio-Cultural Factors and Utilisation of Maternal Health Care Facilities

At individual and group levels, cultural norms have a substantial role in influencing health care behaviours while cultural differences can also affect the responsiveness of the diverse population's health care system. At the national level, cultural norms may inform the formation of health policies and programmes (Chimbiri, 2002; 2007 in Abdulkareem, 2018). As such, a critical understanding of the roles of culture in accessing and utilising health care services is imperative. Culture can directly or indirectly influence access and utilisation of health care due to the presence of some norms that may promote male power control and female subservience in home matters.

Many cultural, religious, or social factors may impede the demand for health care. In communities where women are not expected to mix freely, particularly with men, utilisation of health services from static facilities may be impeded. In some communities in Bangladesh, the restrictions of purdah may prevent mothers from accessing medical treatment for themselves or their children (Ahmed, 2010). The presence of male practitioners for obstetric and gynaecological care has been shown to be an important reason for the low use of these services by Asian women in Western societies (Whiteford and Szelag, 2010). Cultural conventions on modesty are also important. The restrictions imposed on women by Purdah may themselves mean that the impact of travel time on utilisation is much more important for women than for men.

In some societies, provision of social reproductive health (SRH) information to young people especially girls has been challenging because sexual issues involve matters of great culture sensitivity (Lee, Arozullah and Cho, 2004 in Abdulkareem, 2018). The provision of SRH services to unmarried young girls in some societies is equated to promoting premarital sex which is a taboo (Araya; Mark and Yohannes, 2012 and Butawa, 2010). Because of this, many societies customarily withhold SRH information from unmarried young girls till it is felt necessary to give it, which usually happens following puberty or marriage. This however denies the girls easy access to sex and SRH information (Irwin, Brindis, Holt and Langlykke, 2010; Ram, 2011). Most traditional societies do not give freedom and rights to women to control their health in general and reproductive health in particular in societies with rigid cultural norms. However, this lack of rights denies women from making reproductive health decisions (Chege, 2011).

Information and Utilisation of Maternal Health Care Facilities

One of the most common ways to define information is to describe it as one or more statements or facts that are received by a human and that have some form of worth to the recipient. For example, information is described as “news or facts about something,” “knowledge communicated or received concerning a particular fact or circumstance; news” (Szpankowaski, 2012). Access to information influence utilisation of health care services, education and awareness programmes within the mHealth field is largely about the spreading of mass information from source to recipient through short message services (SMS).

In education and awareness applications, SMS messages are sent directly to users' phones to offer information about various subjects, including testing and treatment methods, availability of health services, and disease management. SMSs provide the advantage of being relatively unobtrusive,

offering patients confidentiality in environments where diseases (especially HIV/AIDS) is often taboo. Additionally, SMSs provide an avenue to reach far-reaching areas such as rural areas which may have limited access to public health information and education, health clinics, and a deficit of healthcare workers (Vital Wave Consulting, 2009).

The mHealth field operates on the premise that technology integration within the health sector has a great potential to promote better health communication to achieve healthy lifestyles, improve decision-making by health professionals (and patients) and enhance healthcare quality by improving access to medical and health information and facilitating instantaneous communication in places where this was not previously possible (Shields, Chetley and Davis, 2009; WHO, 2005 in Abdulkareem, 2018). It follows that the increased use of technology can help reduce health care costs by improving efficiencies in the health care system and promoting prevention through behavior change communication (BCC).

Mobile phones, for example, can be very useful especially when used to send health messages to people. Mobile phones can be used to enlighten people about a particular ailment, how to prevent it and how to treat it in case one contacts it (The Economist, 2005). The impact of mobile phones in the developing world has been significant and is the fastest growing means of telecommunications in Africa today (Sarin, Gough, Grezo, Coyle, Wavweman and Meschi, 2010). Mobile phone has helped many Nigerians to know more about Ebola virus and how to prevent it. As good as the mHealth, it is only meant for urban people who can read and write. The village woman in a rural area can neither afford nor access it so it makes no meaning to her. For mHealth to reach the local women, the network providers will need to find an alternative method for the rural women.

Apart from mobile phones, the use of television and radio to disseminate information cannot be underemphasized. Many television programmes have been used to educate women on the use of family planning to space their children. In Kaduna State between 2013 to 2015, there was a programme on the Kaduna FM radio that teaches women the importance and benefits of exclusive breastfeeding of their babies for the first six months of birth. Many women loved listening to this programme and some adhered to the teaching by practising exclusive breastfeeding for their babies for the first six months of birth.

Place of Residence and Utilization of Maternal Health Care Facilities

Geographical proximity to health care centres influences access to maternal health care services. Studies (Israelski et al., 2011; Meechan, Collins and Petrie, 2013; Sudha, Nirupa, Rajasakthivel, Sivasusbrmanian, Sundaram and Bhatt, 2013 and Adams, 2005 in Abdulkareem, 2018) from other countries around the world shows that the access to health care services is related to geographical proximity. Emerging views suggest that many clinical conditions

and their outcomes often depend, among other things, on the geographical proximity of care facilities (Billi, Pai and Spahlinger, 2010). Kloss, Assefa, Adgna, Mulatu and Mariam (2011) posit that in some emerging economies in many parts of the world, health care accessibility is limited to urban areas, and therefore health inequity has been heightened simply due to an asymmetry in the availability of health care services reflecting an urban-rural disparity.

Rural communities found in various parts of Africa, whether Nigeria or Ghana to name a few, have diverse social, geographic and economic characteristics. Most rural communities have a larger proportion of elderly and children, with relatively small populations of people of working age (20-50 years) which is resulting in a higher dependency ratio. Countryside and Community Report Unit (2003 in Abdulkareem, 2018) reveals that rural communities show a health disadvantage for many health measures when compared to their urban counterparts, rural individuals have poorer socio-economic conditions, have lower educational attainment, exhibit less healthy behaviours and have overall higher mortality rate. World Bank (2015) simply put, in general, that rural individuals are characterised as being less healthy overall in comparison to their urban counterparts.

Conclusion and Recommendations

Despite the fact that healthcare centres are uniformly distributed across the country, some people especially women still under-utilise healthcare facilities. Some strategies that could result in enhanced utilisation of healthcare services have been variously outlined. These include capacity building and empowerment of people within the community through orientation, mobilization and women empowerment.

Educations, income, proximity, information, and quality of service were some of the important determinants of utilisation of health services in Nigeria. These created disparities in access and utilisation of healthcare services. Qualities of healthcare services, income, education, and proximity were key factors in utilisation of healthcare services.

There should be communication strategies which include accurate information about specific disease (s) in the community in order to dispel any misconceptions about the disease within the community.

Government should make accessibility to healthcare centres easy by providing all it needs to access the health facilities so as to encourage people (especially women) in the community to utilise the services.

The government should make it a priority to put in place drugs revolving funds so as to get a regular supply of essential drugs and consumables in the

healthcare centres and also make sure that there are quality hands to attend to the health care needs of the people.

Finally, there must be strong political will on the part of government at all levels which includes more commitment in supporting healthcare programmes that will help in improving health in Nigeria.

References

Abdulkareem, S. B. (2018). Assessment of the Factors Affecting Access and Utilisation of Selected Maternal Health Care Services in Kaduna State, Nigeria. Unpublished PhD Dissertation Submitted to the School of Postgraduate Studies, Ahmadu Bello University, Zaria, in Partial Fulfillment of the Requirements for the Award of a Doctorate Degree in Sociology.

Adam, V. Y. & Awunor, N. S. (2014). Perception and Factors Affecting Utilization of Health Services in a Rural Community in Southern Nigeria. JMBR: *Journal of Biomedical Sciences.* 13(2), 117-124.

Ahmed, S. (2010). Differing health and health-seeking behaviour of the indigenous population of the Chittagong Hill Tracts, Bangladesh. *Asia Pacific Journal of Public Health,* 13(2), 100-108.

Akanbiemu, A. F. & Adebowale, A. S. (2016). Effect of Perception of Free Maternal Health Services on Antenatal Care Facilities Utilisation in Selected Rural and Semi-Urban Communities of Ondo State, Nigeria. *British Journal of Medicine and Medical Research,* 3(3), 681-697.

Ashir Doctor & Afenyadu (2013). Performance Based Financing and uptake of Maternal and Child Health Services in Yobe State, Nigeria. *Global Journal of Health Science,* 5(3), 34-41.

Awoyemi, T. T., Obayelu, O. A. & Opaluwa, H. (2011). Effect of Distance on Utilization of Health Care Services in Rural Kogi State, Nigeria. J Hum Ecol 2011; 35(1), 1-9.

Arthur, E. (2012). Wealth and Antenatal Care use: Implication for Maternal Health Care Utilisation in Ghana. *Health Economics Review.* 2: 14. Retrieved from: http://www.health economisreview.com/content/2/1/14 Accessed on 23 January 2022.

Babar, Z. U. D., Ibrahim, M. I. M. & Singh, H. (2010). Evaluating Drug Prices, Availability, Affordability, and Price Components: Implications for Access to Drugs in Malaysia. *PLoS Medicine,* 4: 466–75.

Babalola, S. & Fatusi, A. (2009). Determinants of Use of Maternal Health Services in Nigeria-Looking Beyond Individual and Household Factors. *Bio Med Central Pregnancy and Childbirth*, 9(43).

Bhan, G., Bhandari, N., Taneja, S., Mazumder, S. & Bahl, R. (2015). The Effect of Maternal Education on Gender Bias in Care-Seeking for Common Childhood Illnesses. *Social Science and Medicine,* 60(4), 715-724.

Billi, J. E., Pai, C. W. & Spahlinger, D. A. (2010). The Effect of Distance to Primary Care Physician on Health Care Utilization and Disease Burden. *Health Care Manage Review*. 32, 22–29.

Bloom, S. S., Wypij, D. D. & Gupta, M. (2011). Dimensions of Women are Autonomy and the Influence on Maternal Health Care Utilization in a North Indian City. *Demography*, 38: 67-78.

Butawa, N. N., Tukur, B., Idris, H., Adiri, F. & Taylor, K. D. (2010). Knowledge and Perceptions of Maternal Health in Kaduna State, Northern Nigeria. *Africa Journal of Reproductive Health,* 14(3), 71-76.

Chege, J., Askew, I. & Liku, J. (2011). An Assessment of the Alternative Rites Approach for Encouraging the Abandonment of Female Genital Mutilation in Kenya. Nairobi: United States Agency for International Development (USAID).

Fagbamigbe, A. F. & Idemudia, E. S. (2016). Wealth and Antenatal Care Utilisation in Nigeria: Policy Implications. *Journal of Health Care for Women International,* 38(1), 1-37.

Federal Ministry of Health (2012). *National HIV/AIDS and Reproductive Health Survey (NARHS Plus) 2007,* Federal Ministry of Health, Abuja.

Gyimah, S. O., Takyi, B. K. & Addai, I. (2012). 'Challenges to the Reproductive Health Needs of African Women: On Religion and Maternal Health Utilization in Ghana' Social Science & Medicine. 62(12), 2930-2944.

Human Development Report (2020). Human Development for Everyone. Briefing Note for Countries on the 2020 Human Development Report. Retrieved from: www.hdr.undp.org/sites/all/themes/hdr_theme/country-notes/NGA.pdf. Accessed on 5 April, 2022.

Ibrahim, Y. (2015). Poverty and Conflicts in Kaduna State: A Study of Zango Kataf Local Government Area (1987-2011). A MSc Thesis Submitted to the Postgraduate School, Ahmadu Bello University, Zaria, Kaduna State, Nigeria. Available from: www.kubanni. abu.edu.ng:8080/jspui/bitstream/123456789/72721/povertyandconflict. Accessed on 9/06/ 2022.

Irwin, C. E., Brindis, C., Holt, K. A. & Langlykke, K. (Eds.) (2010). *Health Care Reform: Opportunities for Improving Adolescent Health* National Centre for Education in Maternal and Child Health Arlington VA.

Israelsk, I. D., Gore-Felton, C., Power, R., Wood, M. J. & Koopman, C. (2011). Socio Demographic Characteristics Associated with Medical Appointment Adherence among HIV-Sero Positive Patients Seeking Treatment in a County Outpatient Facility. *Prev Med*. 33: 470-475.

Kapiriri, L. & Norheim, O. F. (2012). Criteria for Priority Setting in Health Care in Uganda: Exploration of Stakeholders' Values. Bulletin of the World Health Organisation, 82(3), 172-179.

Kawakatsu, Y., Sugishita, T., Oruenjo, K., Wakhule, S., Kibosia, K. & Were, E. (2014). Determinants of Health Facility Utilization for Childbirth in Rural Western Kenya: Cross-sectional Study. BMC Pregnancy Childbirth. 2014;14: 265. doi: 10.1186/1471-2393-14-265.

Linceto, O., Mothebesoane-anoh, S., Gomez, P. & Munjanja, S. (2010). Antenatal Care: Opportunities for Africa's Newborns. New York, NY: WHO. Retrieved From: http://www.who.int/pmnch/media/publications/aonsectionalIII2.pdf.

Navaneetham, K. & Dharmalingam, A. (2012). Utilization of Maternal Health Care Services in Southern India. *Journal of Social Science and Medicine*, 55(10), 1849–1869.

National Population Commission (NPC) [Nigeria] & ICF Macro (2014). Nigeria Demographic and Health Survey 2013, Abuja, Nigeria.

Office for the Coordination of Humanitarian Data and Trends (2014). Global Challenges and Risks. Retrieved from: http://www.uncha.org/data-andtrends-2014/downloads/global-risks.pdf.

Ram, F. & Singh, A. (2011). Is Antenatal Care Effective in Improving Maternal Health in Rural Uttar Pradesh: Evidence from a District Level Household Survey. *Journal of Biosocial Science,* 38(4), 433–448.

Szpankowaski, W. (2012). What is Information?-Purdue Computer Science-Purdue University. Available from: https://www.cs.purdue.edu/homes/spa/talks/info.pdf. Accessed on 9/03/2023.

The Economist (2005). Mobile Telecommunications: Mobile-Phone Firms Have Found a Profitable Way to Help the Poor Help Themselves.

United State Census Bureau (2016). Poverty in the U.S. Official Poverty Report. Retrieved from: www.census.gov/topics/income-poverty/poverty.html. Accessed on 5th February, 2023.

Vital Wave Consulting (2009). *mHealth for Development: The Opportunity of Mobile Technology for Healthcare in the Developing World*. United Nations Foundation, Vodafone Foundation. Pg 9.

Whiteford, L. M. & Szelag, B. J. (2010). Access and Utility as Reflections of Cultural Constructions of Pregnancy. Primary Care Update, 7(3), 98-104.

WHO (2014). Gender, Women and Health: What Do We Mean by “Sex” and “Gender”?

WHO (2014a). World Health Statistics. Retrieved from: http://apps.who.int/iris/bitstream/1 0665/112738/1/9789240692671/eng.pdf.

World Bank (2013). Millennium Development Goals. Retrieved from: http://www.worldbank. org/mdgs/maternal/health.html.

World Bank Group (2015). *Overview: What is Empowerment* accessed at http://web.worldbank.org/WEBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTEMPOWERMENT. Retrieved on 15 January, 2023.