



## ACCESS AND UTILIZATION OF ANTENATAL CARE INFORMATION

### FOR PREGNANT WOMEN IN SABON GARI LOCAL GOVERNMENT AREA OF KADUNA, NIGERIA

*Nura Dahiru<sup>1</sup>, Lawal Haruna<sup>2</sup>, Suleiman Tanimu Suleiman<sup>3</sup>*

[nura.dahiru@nigerianlawschool.edu.ng<sup>1</sup>](mailto:nura.dahiru@nigerianlawschool.edu.ng)

[haruna.lawal@nigerianlawschool.edu.ng<sup>2</sup>](mailto:haruna.lawal@nigerianlawschool.edu.ng)

[tsuleimanlibs@gmail.com<sup>3</sup>](mailto:tsuleimanlibs@gmail.com)

#### **Abstract**

**Purpose:** This study aimed to investigate access and utilization of antenatal care information for pregnant women in Sabon Gari Local Government Area of Kaduna.

**Design/Method/Approach:** The study adopted the descriptive research design and the primary data collection instrument used was questionnaire which was administered to 100 pregnant women. **Findings:** The findings showed that majority of the women (85%) accessed antenatal care information, mainly from health care providers. Majority of the pregnant women (90%) were also able to effectively utilize the antenatal care information obtained to take proper care of themselves during pregnancy.

**Implication:** The study also revealed that majority (95%) of the women relied on antenatal care information for decision making during pregnancy. The results further indicated a positive association between maternal age and utilization of antenatal care information ( $r = 0.208, p < 0.05$ ). The study concluded that majority of the pregnant women accessed and effectively utilized antenatal care information in Sabon Gari LGA. Kaduna, Nigeria

**Originality/value:** It was recommended that every pregnant woman should be enlightened on the importance of antenatal care and the health workers in the area should be empowered to enhance access and utilization of antenatal care information.

**Keywords:** Access, Utilization, Information, Antenatal Care, Pregnant women

**Paper Type:** Empirical Research

#### **Introduction**

World Health Organization (2018) posits that “sound and reliable information is the foundation of decision making across all health system building blocks and is essential for health system policy development and implementation, governance and regulation, health research, human resources development, health education and training and service delivery”.

Millions of women in developing countries experience life threatening and other serious health problems related to pregnancy or childbirth. Complications of pregnancy and childbirth cause more deaths and disability than any other reproductive health problems. This situation is worse in developing countries like Nigeria and others part of Africa due to inadequate access to modern health services and poor utilization. Despite the government serious

commitment to deliver health facilities to the doorsteps of urban people through innovative approaches, such as Essential Service Package (ESP), the utilization of health service is still far below any acceptable standard.

In a developing country like Nigeria, a large proportion of the population has limited access to health information and health care facilities. Equitable access to health care remains a challenge in developing and transitional countries, especially among the Sabon Gari poor masses. There are chronic diseases which are terminal illnesses and the practitioners require comprehensive health information for their management. Thus, health practitioners and patients are not aware of available health information as well as the utilization (Obiora, 2013). Access to information and information access are seen as functionally equivalent as they are used mostly by many scholars

interchangeably (Oltmann, 2019). Jaeger and Burnett as quoted by Oltmann (2019) postulate that access is “the presence of a robust system through which information is made available to citizens and others”. They posit that such a system has physical, intellectual and social components. This means that information access is a combination of intellectual, physical and social elements that affect the availability of information to individuals. Burnett, Jaeger and Thompson (2018) suggest that access has three components: physical, intellectual and social.

Oltmann (2019) gives a similar argument that “a well-developed and well-maintained information structure alone is not enough. The information that is accessible should also be affordable, available, timely and relevant readily assimilated and in languages and contexts users can relate to and understand”. This need has been widely recognized across health professionals. The requirement for health practitioners to remain up-to-date with the changing knowledge base of the profession is now being formally recognized by health professionals with the introduction of mandatory Continuing Professional Development (CPD) requirements for practitioners (Madewell, 2015). Weidling (2015) states that “to update professional knowledge health practitioners must have access to the information resources that contain the knowledge of their profession”.

It is in realization of the importance of communication to health service that Nakojimo (2016) remarked that "information and communication are at the very heart of World Health Organization". WHO & UNICEF (1978) identified one of the fundamental principles of primary health care as “participation of community at all stages”. For country to be intelligently involved, they need to have easy access to the right kind of information covering their health situation and how they can help improve it. It is important to have a clear explanation of the technologies available, their advantages and disadvantages, their success and failure, their possible adverse efforts and their costs.

### **Statement of Problem**

Health decisions depend on use of information. Health decisions require information from several sources. Information is an indispensable resource in health decision

situations. In the United States, health care information system is evolving into a national network of quality improvement initiative (Blumenthal & Egbert, 2017 and ONHTIT, 2018). The utilization of health information is a necessary component of quality improvement initiative because it is expected to enhance quality care, increase health care safety and provide cost effective health services for patients. According to Pakenham-Walsh and Priestly (2016) studies have shown that people in the Sabon Gari areas do not have access to basic information they need since majority of the population live in Sabon Gari areas. Most of the primary health care centres that are in remote areas lack facilities like internet services. They lack adequate power supply, poor road networks and most of the social amenities of life. Information is valuable in the prevention of diseases and promotion of good health. “Both the public health and the personal care interventions have contributed to reversing the urban – Sabon Gari differences in health status; better health among urban populations is due more to the application of improved knowledge” (WHO, 2017). It therefore follows that people in Sabon Gari areas could enjoy better health if they accessed information to enhance their knowledge. Hence, factors which negate information access and use in Sabon Gari areas need to be addressed in order that Sabon Gari communities may reap the benefits of improved health knowledge (Musoke, 2015). Despite the relevance of information for effective and efficient health care delivery there are still high rates of diseases in Sabon Gari areas in Nigeria. Could the high rate of diseases in Sabon Gari areas be attributed to poor or lack of awareness, access and utilization of primary healthcare information among primary health care practitioners? It is in line with the aforementioned problems that the researcher sought to determine the access and utilization of Antenatal care information among pregnant women in Sabon Gari Local Government of Kaduna state

### **Research Questions**

The study was undertaken to answer the following questions:

1. What type of antenatal care information are needed pregnant women in Sabon Gari Areas of Kaduna states of Nigeria?

2. What are the sources of antenatal care information in Sabon Gari areas of Kaduna state?
3. What is the primary health care information used for antenatal care by pregnant in Sabon Gari areas of Kaduna States of Nigeria?
4. To what extent are the health Sabon Gari areas of Kaduna? States of Nigeria aware of antenatal health care information generated?

### Objectives of the Study

The study sought to achieve the following objectives:

1. To identify the type of information generated on antenatal care in Sabon Gari areas of Kaduna state.
2. To identify the sources of antenatal care information in Sabon Gari areas of Kaduna States of Nigeria.
3. To determine what antenatal care health care information are used for in Sabon Gari areas of Kaduna states of Nigeria.
4. To identify the extent to which health care practitioners in Sabon Gari areas Kaduna States of Nigeria get aware of the availability of information for primary health care.

### Literature Review

Antenatal healthcare is defined by the World Health organization (2017) as the “care a pregnant mother receives before birth” and involves among other services education, screening, counseling, treatment of minor ailment, and immunization. Antenatal care coverage, however, is defined by Arthur, as the “percentage of women who use ANC services provided by skilled health personnel for reasons related to pregnancy at least once during pregnancy, as a percentage of live births in a given time period usually one year.” Empirical studies have shown that antenatal care, a section of maternal healthcare, cushions women with the support to detect early problems associated with pregnancy and to reduce imminent labour complications, (Doku et al., 2016).

Health information is a vital resource for individuals who according to BIREME/PAHO/WHO, (2018) seek information for as varying reasons as mere curiosity, self-diagnosis and analyzing and evaluating treatment for health. Ariyo (2014) opines that information assists in reducing the degree of uncertainty and

ignorance in the operating environment, while Corragio (2014) avers that lack of information is the denial of choices and opportunities for living better live. Therefore, the quality of information an individual receives enhances her rightful choice of health care as the case may be. The findings of similar studies by Uchudi, (2014); Fatimi & Avan, (2014) revealed that women in developing countries are often not allowed to visit health care facilities by themselves. Furthermore, Hossain and Islam (2016) avers that women who live in villages also lack access to information resources and ability to access Information and Communication Technology. (Corragio, 2014). Health seeking and compliance with treatments require patients to understand and apply health information. Health literacy is the ability to obtain, process, and understand health information to make informed decisions about health care (National Institute of Health, 2016). Patients with low health and general literacy skills may have poorer health, higher expenses for health care, a higher rate of hospitalizations, lower, self-efficacy for preventive care practices and compliance to treatment regimens (Ross, 2007).

### Health information needs of Antenatal pregnant women

Women's information needs on personal, religious, social, domestic, professional or medical are an important factor in determining the quality of life they live, their output professionally or socially, at home and to the world generally (Olorunda, 2015). Saleh and Lasisi (2014) examined information needs and information seeking behavior of rural women in Borno state, Nigeria. This study revealed that the most paramount health information required is ante natal and post natal care, immunizations especially on the six killer diseases, how to prevent and manage Vascular Virginal Fistula VVF, and how to safely deliver pregnancy.

Similarly, Momodu (2014) carried out a study on information needs of rural dwellers in Nigeria. He identified that women particularly needed information on pre and post natal care and current immunization facilities for their children and themselves. In a study by Hsieh and Brennan (2016) participants indicated that they searched for information related to their prenatal genetic counseling need. Mooko's (2016) studies of

information needs and information-seeking behavior of women in three rural villages in Botswana revealed that most of the information needs of these women are health-related. Rutakumwa & Krogman's (2017) study revealed the primary concern of women in Uganda was for information on reproductive health and birth control. In Mooko's studies most of the participants turn to medical practitioners (such as village nurses and traditional doctors) for their needs, and they also depend on their prior experience. Lack of knowledge and low levels of information related to various issues of pregnancy among women can create problems and increase medical interventions. This study aimed to identify information needs of pregnant women referred to health centers in Behshahr city during 2016-2017.

### **Health information sources consulted by Antenatal pregnant women**

Musoke (2016) studied information access and use by primary health care providers in rural Uganda and reported that the women disseminated health information informally to relatives and friends. Formal sources of information usually carry information that is public through print and nonprint media. Health professionals are preferred in particular when medical information is required (Göransson 2019; Noll et al. 2014). Depending on the nature of the information need, information is sought from different sources (Davies and Bath 2014; Rees and Bath 2017; Wathen and Harris 2016). However, Barone et.al (2014) and Berg and Lipson (2019) here observed that sometimes informal sources, such as friends, family, and relatives, are the ones people turn to when they need health information.

### **Challenges facing Antenatal Pregnant Women**

Access to quality healthcare still remains a major challenge in the efforts at reversing maternal morbidity and mortality. Despite the availability of established maternal health interventions, the health of the expectant mother and the unborn child remains poor due to low utilization of interventions.

Socioeconomic factors comprise demographic, social, structural, and attitudinal

influences which increase the likelihood of a person to seek for ANC services when pregnant (Andersen 2016). Among the examples of socioeconomic variables that influence the use of ANC are age, level of education, employment status, household size, geographic distance, and physical accessibility. These factors can influence the ANC use of pregnant women either positively or negatively. The age of the pregnant mother affects her quest in the use of ANC. Available studies on age physical accessibility and ANC use reveal varied evidence.

The natural desire of a woman of any culture to bear a biological child of her own is usually strong. It is the expression of a deep and compelling innate call to motherhood. The processes of pregnancy, child birth and child rearing are unique life-transforming motherhood experiences that a woman looks forward to as she comes of age. I intend to explore these processes and discuss the numerous challenges women face in Nigeria, by examining five basic questions:

1. What if a woman fails to conceive or keep pregnancies?
2. What if a pregnancy is unintended and unwanted?
3. How hazardous can pregnancy and childbirth be?
4. Are there any concerns about survival of the newborn?
5. Are there emerging challenges to motherhood in the HIV era?

Definition of infertility; Infertility primarily refers to the biological inability of a person to contribute to conception. For a couple, infertility refers to the inability to achieve conception after 12 months of unprotected sex. Infertility may also refer to the condition of a woman who is unable to carry a pregnancy to a state of viability.

There are many biological causes of infertility and in general, it is estimated that in 30% of infertile couples, the problem is with the woman, in another 30% the problem is only with the man and in a further 30%, the defects are found in both parties while in the final 10% of couples, no abnormalities are found (unexplained infertility). It is estimated that one out of every 6 couples in Nigeria are infertile. Psycho-social consequences of infertility A Yoruba adage says "Omo laso", meaning children are clothes, without them you are naked. Infertile couples feel insecure and vulnerable to societal stigmatization.

The psycho-social challenge faced by infertile women is age-long. Evidence from biblical time shows that women have contemplated suicide as a response to their continued barrenness. Rachael, wife of Jacob considered live worthless without a child of her own: [Gen 30:1 And when Rachel saw that she bore Jacob no children, Rachel envied her sister. And she said to Jacob, Give me sons, or else I will die.

Anthropologists who worked in different communities in the South-south region of Nigeria concluded that; "the necessity for a woman to have a child remains basic in this region. Motherhood continues to define an individual woman's treatment in her community, her self-respect, and her understanding of womanhood" (Hollos et al 2019).

In focus group discussions on the social meaning of infertility in south-western Nigeria, (Okonofua et al.2016) reported the following community perceptions; that infertility is not often discussed, and if at all, must be discussed carefully and privately. This was largely to avoid embarrassing those who were infertile.

In a Nigerian study, nearly one-third of infertile women were found to have diagnosable psychopathology, mainly depressive episode and generalized anxiety disorder. Compared with the control group, the infertile women experienced poorer marital relationships and polygamy was found to have a close association with psychopathology. (Aghanwa et al.2019)

Recurrent pregnancy losses (Habitual abortion) there is no experience more difficult than having to go through a miscarriage during pregnancy. Miscarriage is not only physically taxing, but very emotionally challenging, as well. Yet, pregnancy loss can be even harder to deal with when it occurs time and time again.

Unfortunately, it is difficult to pinpoint the underlying cause of pregnancy loss. In fact, more than 50% of couples that experience the problem never find out what is responsible for their miscarriages. However, there are a number of conditions that do underlie some cases of recurrent miscarriage. They include genetic factors, structural uterine problems, hormonal imbalance and blood clotting disorders.

## **What if a pregnancy is unintended and unwanted?**

Each year, thousands of Nigerian women have unintended pregnancies that end in illegal abortion. Many of such procedures occur under unsafe conditions, contributing to maternal morbidity and mortality. To highlight this challenge, permit me to share an experience during my residency training. It was about 9.00pm on a cold April night in mid-2014s, I was on my first call duty as a resident doctor in the Jos university teaching hospital, Jos, and I was asked to review and admit a young lady who was said to be having vaginal bleeding. She was a university undergraduate. On the couch, I found a pretty, young lady with a stylish hair do, who was very pale, cold, motionless and stiff. My examination confirmed that she was dead. I tried to conceal my horror and politely told the porter to take her back to the casualty officer and demonstrated to him that she was brought in dead and could not be admitted to the gynaecology ward.

Abortion in Nigeria is illegal except to save a woman's life. Of the estimated 6.8 million pregnancies that occur annually in Nigeria, one in five is unplanned and half of these end in an induced abortion. (Guttmacher Institute 2018) Abortion is therefore common in Nigeria and most procedures are performed under unsafe, clandestine conditions. In 1996, an estimated 610,000 abortions occurred (25 per 1000 women of childbearing age), of which 142,000 resulted in complications severe enough to require hospitalization. The number of abortions is estimated to have risen to 760,000 in 2016 (Bankole et al. 2016). Unsafe abortions are a major reason Nigeria's maternal mortality ratio – 1,100 deaths per 100,000 live births- is one of the highest in the world (WHO 2007). According to conservative estimates, more than 3,000 women die annually in Nigeria as a result of unsafe abortion (Henshaw SK et al 2018).

In countries like Nigeria with low contraceptive uptake, a high rate of unintended pregnancies and poor access to safe maternal healthcare services, each pregnancy puts a woman's life at considerable risk. Women in Africa experience a 1 in 26 (1 in 18 in Nigeria) lifetime risk of dying from pregnancy- or childbirth-related complications. This is compared to a 1 in 7,300 lifetime risk for their counterparts in developed countries. Among a total of 171 countries for

which estimates were made, the adult lifetime risk of maternal death (the probability that a 15-year-old female will die eventually from a maternal cause) was highest in Nigeria's northern neighbor Niger (1 in 7), in stark contrast to Ireland, which had the lowest lifetime risk of 1 in 48,000 (WHO 2016).

Clearly, maternal and neonatal deaths can be prevented by (1) limiting the number of pregnancies each woman experiences during her lifetime and (2) improving access to reproductive and maternal healthcare—particularly antenatal care, skilled attendance at delivery, emergency obstetric care, postpartum care, and post-abortion care. Making family planning a component of safe motherhood programs, should help women limit their overall fertility and reduce the number of times they are at risk for maternal death; space births, thereby allowing their bodies to recover from previous pregnancies; and time their pregnancies. These services must also be accessible to youths.

The unit remains one of the most active in the country and a number of reports have been published (Otubu et al 2016, Aisien et al 2014, Aisien et al 2014). With the advent of novel contraceptive implants in the 2014s and 2016s, and the instant popularity of this non-sex related, long-term, reversible contraceptive method among our clients, a number of studies on the safety profile among Nigerian women were undertaken in the department.

The effect of Norplant on serum lipids and lipoproteins (agents that are incriminated in heart and vascular diseases) was studied by Otubu et al. (2014) Serum triglycerides and total cholesterol were reduced. High density lipoprotein-cholesterol (HDL-chol) exhibited statistically significant reduction and low density lipoprotein-cholesterol (LDL-chol) was significantly elevated at 6 months. The changes in lipid profile with regards to cardiovascular morbidity were mixed. Norplant use was not associated with adverse lipid profile.

### **Role of librarians in providing Health information**

Currently librarians perform a valuable service to both healthcare providers and patients by facilitating quick and easy access to information.

It matters little to the researcher that behind the scenes the librarians are dealing with selection, acquisition, licences, hardware requirements and software. What really matters are that relevant information is quickly and easily available to support patients to understand healthcare information.

The traditional roles of the librarian in the era of health care information can be defined as follows. 1. Collection development and acquisition of health care materials: to select and purchase material related to health care -printed journals, abstracts and indexes, monographs, etc. 2. Cataloguing and classification: to organize and provide access to health care information - physically and via lists and catalogues. 3. Circulation: to reserve health care materials for and lend materials to healthcare providers and patients, and recover materials from them. 4. Reference work: to advise health care information users and to provide and facilitate quick and easy access to health care information. 5. Preservation, conservation and archiving: to archive, preserve and conserve health care information in perpetuity.

The Roles of Medical Librarians in Healthcare Information Management Information management skills and networks of information are essential for efficient and effective delivery of health care. Access to information reduces professional isolation and improves the quality of decision making. Studies of health professionals have shown that having access to evidence-based information, improves patient care, reduces health care costs, and assists in prevention of malpractice litigation. Health sciences librarians train tomorrow's health care providers and biomedical researchers to retrieve, manage, and evaluate information effectively. They support the efforts of health professionals to be lifelong learners, and facilitate recruitment and retention of health professionals in underserved areas by serving as access points and guides to critical information. Availability of information about the patient is of utmost importance in the medical librarian profession. In order for a medical librarian to provide the patient with the best possible health care information, it is of utmost importance that, all the information past as well as present, about the patient is available to him.

(AHIMA History, 2018). From then onwards, the quality record keeping and its security has turned

into a proper science. Healthcare management of information systems is defined as follows. It is the study of the principles and practices of acquiring, analyzing, and protecting digital and traditional medical information vital to providing quality patient care" (What is health information management, 2010). The general aims of medical librarians in healthcare information management is to interlink comprehensive patient information across the country and to ensure its accessibility in real-time to accomplish on time health care delivery. System interoperability and data interchange is the need of our times. It is the task of medical librarians to ensure the creation of data organization, storage and extraction systems in health and related institutions with the view of providing services across the country (Advocate for Health Policy, 2018). The regulatory body of HIM, the AHIMA has undertaken the task to "advance the role of HIM in informing clinical practice, develop standards to improve data quality and facilitate information exchange, and help healthcare organizations migrate to the electronic health record (EHR)." The Medical Library Association (MLA) and Academic Health Sciences Libraries (AAHSL) believe that authoritative information is mission-critical to every health care enterprise. In the spirit of health care reform, MLA and AAHSL support the following priorities to ensure the delivery of quality information for improved health. 1. Formally include the health sciences librarian community in the discussion of health care reform based on their recognized expertise in collecting, organizing, and disseminating health information to support informed clinical decisions, biomedical research, and education of professionals and consumers. 2. Provide robust support of the nation's most important health sciences library on which all other health sciences libraries depend the U.S. National Library of Medicine (NLM). Specifically, provide increased funding for NLM's critical national infrastructure of networks, databases, extramural grant programs, and information and education services, as well as its support of national Health Information Technology (Health IT) efforts.

### **Research Methodology**

This research used quantitative research methodology. The research design adopted for the study was cross-sectional survey research design. However, the researcher adopted cross-sectional survey design, because it is ideal and

capable of providing accurate and comprehensive data. The area of study was Sabon Gari Local Government Area of Kaduna State. The study population was 2288 out of which 364 was sampled using sample technique

## **FINDINGS AND DISCUSSION**

### **Response Rate**

The high response rate of 87.2% was realized due to the fact that the research assistants used were well trained on the administration of the questionnaire. Some of them were part of the respondents. Also, the respondents were given up to two weeks within which to complete and return their copies of the questionnaire.

This section analysed and discussed the data collected for the study with respect to the research questions raised using description statistical techniques and presents the findings as follows:

**Table 1 What type of antenatal care information is needed for pregnant women in Sabon Gari local Government Area of Kaduna State, Nigeria?**

<b>Information Need</b>	<b>F</b>	<b>%</b>
Information about unborn Child	177	98.9
Information about Nutrition	179	100.0
Conferences / workshops/ Seminars	167	93.3
Information about labor/ delivery	177	98.9
Information about Health Status	156	87.2

The Table above shows the responses of the respondents on the information needs of pregnant women in Sabon Gari of Kaduna State, the table shows that 177 respondents representing 98.8 % of the entire sample population postulated that information about unborn child and information about Health Status are major information need Pregnant women in Kaduna State, while 167 representing

93.3% % of the population lament that conference/workshop and seminars are one of the major information need of Pregnant women in Kaduna State which follow by 156 representing 87.2 % which lament that information about labor/delivery are major information need Pregnant women in in Sabon Gari of Kaduna.

**Table 2 What are the sources of antenatal care information needed for pregnant women in Sabon Gari areas of Kaduna State, Nigeria?**

<b>Sources of Antennal care information</b>	<b>Frequency</b>	<b>Percentage %</b>
Through co-wives	<b>123</b>	<b>68.7</b>
Through traditional birth attendant	<b>111</b>	<b>62.0</b>
Through Family members	<b>43</b>	<b>29.7</b>
Through Health professional	<b>34</b>	<b>23.4</b>

The Table above shows the response of the respondents about the sources of antenatal care information needed for pregnant women in Sabon Gari local Government area of Kaduna State, 123(68.7%) of the response of the respondent indicate that through co-wives that pregnant women got sources of information and which follow by 111(62.0%) of the

response of the respondent that lament that it's through traditional birth attendant pregnant women get its sources of information and lastly follow by 43(29.7%) and 34(23.4%) respectively.



**Table 3 What is the primary health care information used for antenatal care by pregnant in Sabon Gari areas of Kaduna States of Nigeria?**

PHC Information	Frequency	Percentage %
Information about family panning	165	92.2
Information about communicable diseases	45	25.1
Information about Genotype	55	19.2
Information about HIV Status	99	76.7

The Table above show the response of respondents on primary Health care information needed for pregnant women in Sabon Gari Local Government Area of Kaduna State, therefore, 165(92.2) indicate that information about Family planning it has the highest response of the respondents and which follow by 99(76.7) which laments that

information about HIV status is one of the first primary Health care information needed by pregnant women in Sabon Gari Local Government of Kaduna State, while 55(19.2) and 45(25.2) of the response of the respondents that lament on information about genotype and information about communicable diseases respectively.

**Table 4 To what extent is the primary health care practioners in Sabon Gari areas of Kaduna State of aware of antenatal health care information?**

Awareness of information	Frequency	Percentage %
By attending conferences	50	21.8
By attending seminars	52	22.7
By attending workshops	69	30.1
By attending courses	68	29.6

The Tables above show the response of respondents about the extent are the primary health care practioners in Sabon Gari Local Government area of Kaduna State aware of antenatal Health information, 68(29.6) of the response of the respondents indicate that by attending courses primary health care practioners would be aware of antenatal Health care information about pregnant women and which by the response of the respondent of 69(30.1) that said by attending workshops primary Health practioners may aware of Health care information on antenatal health care of pregnant women in Sabon Gari local government are of Kaduna State, while 52(22.7) and 50(21.8) of the response of the respondents lament that by attending seminars and by attending conferences Primary Health

care practioners may be more aware about antenatal Health information about pregnant women in Sabon Gari Local Government of Kaduna State.

**Summary of Findings**

Considering the purpose of this research it has been observed that wellbeing of women most especially pregnant women is very important in the society. To achieve sound health by women in the society, there is the need for women to understand the level of their health and if pregnant the level of the baby’s health. They should understand how to live in perfect health, take care of themselves to prevent the spread of disease and also at the course of delivery there will be no course for alarm. Four (4) research

questions were formulated namely: What type of antenatal care information is a needed

pregnant woman in Sabon Gari Areas of Kaduna states of Nigeria? What are the sources of antenatal care information in Sabon Gari areas of Kaduna state? What is the primary health care information used for antenatal care by pregnant in Sabon Gari areas of Kaduna States of Nigeria? To what extent are the health Sabon Gari areas of Kaduna? States of Nigeria aware of antenatal health care information generated?

The research design adopted for the study was cross-sectional survey research design. Nwargu (2014) defined survey research as one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire population. However, the researcher adopted cross-sectional survey design, because it is ideal and capable of providing accurate and comprehensive data. The cross-sectional survey allows a researcher to collect data or information from the respondents at a single period of time (Osker, 2018). He further stated that, cross-sectional survey, usually utilize questionnaires to ask about a particular topic at one point in time and sometimes, cross-sectional surveys are used to identify the relationship between two variables. This design was chosen because it singles out individuals, groups of individuals, institutions or communities for study. Aina, (2014) stresses that in cross-sectional survey design, opinions of individuals are collected at one point and comparisons are made between the sub-groups and is a cheap method of collecting data and it can be accomplished within a relatively short time.

## **Conclusion**

Based on the outcome of the study, the following conclusions were made:

- i. Lack of proper accessibility of antenatal facility has an influence on pregnant women in Sabon Gari local government.
- ii. The proper funding of antenatal care center has brought about the development of the locality, and an

improvement in the standard of living of the people.

Islam, the predominant religion in the northern states, strongly supports education of both boys and girls. To this end, traditional and religious leaders can serve as key partners, as can organizations currently working in education. Antenatal education, especially when combined with postnatal education using a set of different interventions, is effective for increasing the breastfeeding initiation rate and prolonging exclusive breastfeeding

## **Recommendations**

Based on the findings of this study and its limitations, the researcher recommends the followings:

1. Pregnant women should be offered information based on the current available evidence together with support to enable them to make informed decisions about their care. This information should include where they will be seen and who will undertake their care, this should be done in order to avoid improper knowledge on their health
2. Women with any risk factor should be properly checked and treated in order to bring about a sound delivery.
3. Inadequate health centers can cause great effect on the wellbeing of women most especially pregnant mothers, so therefore, health care center should be provided in various local governments in order to avoid distance as being an excuse of location of health care center, or if possible vehicles be provide to various local government to bring about efficient transportation to the health care centers.
4. In relation to the ill-equipped health care facilities, it is recommended that all health care centers should be replaced with new ones by the center or by government, in order to help the health workers to effectively deliver their services.

## References

- Abba, D. (2017). Agrobased Enterprises in Katsina state. *Agro-journal* (vol ii. No 4), College of Agriculture, Benue State.
- Acharya, L.B. and Cleland, J. (2000), 'Maternal and child health services in rural Nepal: does access or quality matter more?', *Health Policy and Planning* 15: 223 -240
- Adamu, Y. M. (2015), 'Causes and Determinants of Maternal Mortality in Kano State'. Ph. D Progress seminar paper presented to the Department of Geography, Bayero University Kano. August, 2015.
- Adamu, Y. M. (2015), 'Spatio-temporal Analysis of Maternal Mortality in Kano State. Being a PhD Seminar Paper presented to the Department of Geography, Bayero University Kano. July 2015.
- Adamu, Y.M. and Salihu, M. H. (2002). "Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria." *Journal of Obstetrics and Gynaecology* 22(6): 600– 603.
- Addai, I. (2000), *Determinant of Maternal-child health service in rural Ghana*. In *Journal of Biosocial Science* 32: (1) 1-15.
- Addai, I. (2018), *Demographic and socio-cultural factors influencing use of maternal health services in Ghana*. In *African Journal of Reproductive Health* 2(1): 73-89
- Adebayo, S. B. Fahrmeir, L. (2015). Analysing child mortality in Nigeria with geoaddivitive discrete-time survival models. *Stat Med* 24: 709–728
- Adetoro, O. (2000). 'Socio-Cultural Factors in Adolescent Septic Illicit Abortion in Ilorin, Niger. *African Journal of Medicine and Medical Sciences*, 20:2:149-153.
- Adeyemi, T. S (2000), *Report on Mapping of Essential Obstetric Care Facilities in Nigeria*. Federal Ministry of Health, Nigeria. Lagos.
- Afari, E.A., Nkrumah, F. K., Nakana, F., Sakatoku, H. Hori, H and Binka, F. (2015). 'Impact of primary health care on child morbidity and mortality in rural Ghana: the Gomoa experience (corrected)'. *Central African Journal of Medicine*, 41:148 -53 and 335
- Ahmed, S. and Mosley, W. H. (2002) 'Simultaneity in the use of Maternal-Child Health care and contraceptives: evidence from developing countries', *Demography* 39: 75 -93
- Anna, M., Ejik, V., Hanneke, M., Odhiambo, F., John, G.A., Ilse, E.R, Daniel, H.R. Kubaje, A. L. (2015). Use of Antenatal Services and Delivery care among women in rural western Kenya community-based Survey. Kenya.
- Appiah-Kubi, K. (2014). Access and Utilization of safe motherhood services of expecting mothers in Ghana, *Policy and Politics*, Vol32 No 3, 387-407
- Asiimwe, K.J. (2010). Utilization of antenatal services among adolescents in Western Uganda.
- Assfaw, Y.T. (2010). Determinants of Antenatal care, Institutional delivery and skilled birth attendant Utilization in Samre Saharti district, Tigray, Ethiopia; Thesis, Umea University, Sweden, 2010
- Ascadi, G. and Johnson-Ascadi, G. (2014). 'Social and Cultural factors influencing Maternal Mortality in Sub-Saharan Africa', In *The Effects Maternal Mortality on Children in Africa*. D.F.C. International-USA, DCI-USA, New York.
- Awusi,V.O. Anyanwu, E.B. Okeleke, V. (2017). Determinants of Antenatal care services utilization in Emevor Village Nigeria, Vol. 11, September, 2017, pp21/22.
- Babangida, M. F. (2015). "The Offices of 'Kogo' and 'Funtua' in the Development of Funtua District, Katsina Emirate in the 20th Century.", B.A.(History), B.U.K
- Babsal, O. (2018). *Katsina State in focus*. Macmillian Publishers, kano.
- Bawa, S.B, Umar, U.S, Onadeko, M. (2014). Utilization of Obstetric Care Services in a Rural Community in South Western Nigeria. *African*

*Journal of Medicine and Medical Sciences*; 33(3): 239-44.

Becker, S., Peters, D. H., Gray, R. H., Gultiano, C. and Black, R. E. (2019). 'The determinants of use of maternal and child health services in Metro Cebu, the Philippines', *Health Transition Review* 3: 77-89.

Bhatia, J.C, and Cleland, J. (2015). "Determinants of Maternal Care in a Region of South India," *Health Transition Review*, Vol.5 pg 127-142

Bulatoo, R. A, and Ross, J. A. (2000). *Rating maternal and Neonatal Health Programs in Developing Countries*. Chapel Hill, NC: *MEASURE Evaluation Project, University of North Carolina, Carolina Population Centre*.

Benefo, K.D. (2015). The community-level effects of women's education on reproductive behavior in rural Ghana, *Demographic Research*, Max Planck Institute for Demographic Research, Rostock, Germany, 14(20), pages 485-508

Carroli, G., Rooney, C. and Villar, J. (2015). 'How effective is antenatal care in preventing maternal mortality and serious morbidity? An overview of the evidence'. *Paediatric & Perinatal Epidemiology* 15 Suppl 1:1-42

du Preez and Barber T. (2015). *Northern Nigeria*. Oxford University Press, New York.

Dupra, K. (1994). *Geographical Analysis of Nigeria*. Heinemann Publishers, Lagos.

El- Safty, M. (2000), *Culture, Public Health and Community Development*. *Health and Environments Education Association of Egypt* (HEEA). O U P, London.

Elo, I. T. (2017). 'Utilization of Maternal Health Care Services in Peru: The Role of Women's Education. In *Health Transition Review* Vol. 2 No. 1: 49-69

Erci, B. (2015). *Barriers to utilization of prenatal care services in Turkey*. *J Nurs Scholarsh*,

Erinosho, O. A. (2017). 'Attitudes of Rural Practice among Nigerian Medical Students'. In

*Nigerian Medical Journal* Vol. 7, No. 4, 472-475.

Erinosho, O.A. (2017). 'Pathways to Mental Health Delivery system in Nigeria'. In *International Journal of Social Psychiatry*, Vol. 23, No. 1, 1137/1-1137/6

Ghana Statistical Services (GSS) and Macro International Inc. (MI) (2019), *Ghana Demographic and Health Survey 2018*. Calverton, Maryland: GSS and MI

Ghana Statistical Services (GSS) and Macro International Inc. (MI) (2019), *Ghana Demographic and Health Survey 2018*. Calverton, Maryland: GSS and MI

GSS (2018). *Core Welfare Indicators Questionnaire (CWIQ) Survey 2017 Main Report*. Accra: Ghana Statistical Service

GSS (2018). *Core Welfare Indicators Questionnaire (CWIQ) Survey 2017 Main Report*. Accra: Ghana Statistical Service

GSS (2000). *Ghana Living Standards Survey: Report on the Fourth Round, April 2018* –

Henry, V., Sally, E. F. and Dahiru, T. (2014). Use of antenatal services and delivery care among Women in northern Nigeria. *Community Medicine, Ahmadu Bello University, Sabon Gari*.

Hutton, P. Bergsjo, L. Bakketeig, H. Berendes (2015), 'WHO antenatal care randomized trial for the evaluation of a new model of routine antenatal care'. *The Lancet* 357: 1551 - 64

Kabir, M., Iliyasu, Z., Abubakar, I.S. and Sani, A. A. (2015). Determinants of utilization of antenatal care services in Kumbotso village, Northern Nigeria. *Trop. Doct.*; 35: 110-111.

Kandala, N-B, (2015). Bayesian geo-additive modelling of childhood morbidity in Malawi. *Appl Stochast Models Bus Ind* 22: 139–154.

Kabir, M, Iliyasu, Z, Abubakar I.S, Sani A.A, (2015), Determinants of utilization of antenatal care services in Kumbotso village, Northern Nigeria. *Trop. Doct.* 2015; 35:110-111.

- Kiwuwa, M. S and Mufubenga, P. (2018).” Use of antenatal care, maternity services, intermittent presumptive treatment and insecticide treated bed nets by pregnant women in Luwero district, Uganda: *Malaria Journal*, 7:44
- Krejcie, R.V. and Morgan, D.W. (2014). Determining sample size for research activities in Educational and Psychological Measurement. *Journal of Education and Psychology*. No. 30 (607-610).
- Kulmala, T., Vaahtera, M. and Rannikko, J. (2015). The relationship between antenatal risk characteristics, place of delivery and adverse delivery outcome in rural Malawi. *Acta Obstet. Gynaecol. Scand.*; 79: 984-90.
- Lavy, V. and Quigley, M. J. (2002) ‘Willingness to Pay for the Quality and Intensity of Medical Care, Low-income Households in Ghana’, Living Standards Measurement Study Working Paper no. 94, World Bank, Washington D.C.
- Lawn, F. (2017). Use of Antenatal Services and Delivery Care among Women in Rural Western Kenya.
- Magadi, M. A., Madise, N. J. and Rodrigues, R. N (2000). *Frequency and timing of antenatal care in Kenya: explaining the variations between women of different communities. Soc Sci Med*, 2000; 51: 551–561. March 2019. Accra: Ghana Statistical Service.
- Marl, P. and Banji, A. (2015). Utilization of antenatal care in a Nigerian Teaching Hospital. *African Journal of Representative Health* Vol. 9. No 3
- McCaw-Binns, A., La Grenade, J. and Ashley, D. (2015), ‘Under-users of antenatal care: a comparison of non-attenders and late attenders for antenatal care, with early attenders’. *Social Science and Medicine* 40: 1003-1012
- McFadden, D. L. (eds.), *Structural Analysis of Discrete Data with Econometric Applications*. MIT Press, Cambridge.
- McFadden, D. L. (2018), ‘Econometric Models of Probabilistic Choice’, in Manski, C.F. and
- Measure DHS STATcompiler. (2017). “Percentage of live births delivered at a health facility.” [www.statcompiler.com](http://www.statcompiler.com); accessed September 16, 2017.
- MoH (2019a), *National reproductive health service protocols*. Accra, Ministry of Health.
- MoH (2019b), *Medium term health strategy towards vision 2020*. Accra, Ministry of Health.
- MoH (2000), *Annual Report 2000*. Accra, Ministry of Health.
- Monir, I, and Sachiyo, Y. (2017). Safe motherhood and Newborn health: “Women are still deprived of access to lifesaving essential and emergency Obstetric care”: *International journal for gynecology and obstetrics*; Vol. 106, Issue 2, 120-124.
- Murray, C. J. L. and Lopez, A.D. (2016). *The global burden of disease*. Harvard, Harvard University Press
- Musoke, M.G.N. (2015). ‘Maternal Health Care in Rural Uganda’. *IK Notes no. 40. World National Institute of Public Health*. Health Status of the People in Laos. p. 2 and p. 93, 2015, Vientiane.
- Musoke, M.G.N. (2002). ‘Maternal Health Care in Rural Uganda’. *IK Notes no. 40. World Bank at World Wide Web*
- National Population Commission (NPC) [Nigeria]. (2017). Final Results of 2015 Census. Official Gazette of 2<sup>nd</sup> February, 2017. Abuja, Nigeria;
- National Population Commission (NPC) and ICF Macro (2017). Nigeria Demographic and Health Survey, *Abuja, Nigeria*.
- Navaneetham, K. Dharmalingam, A. (2002). Utilization of maternal health care services in Southern India. *Soc. Sci. Med.*; 55: 1849-69.
- Nyonator, F. and Kutzin, J. (2019). ‘Health for some? The effects of user fees in the Volta Region of Ghana’. *Health Policy and Planning* 14: 329-341.
- Obemeryer, C. M (2016).” Culture, Maternal care and Women’s status. A comparison of Morocco and Tunisia,” *Studies in Family Planning*, Nov/Dec, Vol.24, No.6, pg 363.
- Ogunlesi, T. A. Okeniyi, J. A., Owa, J. A, and Oyedeki, G. A. (2007). Neonatal tetanus at the close of the 20th century in Nigeria. *Trop. Doct.*; 37: 165-
- Paredes, I., Hidalgo, L., Chedraui, P., Palma, J. and Eugenio, J. (2015), *Factors associated with inadequate prenatal care in Ecuadorian women. Int J Gynecol Obstet*, 2015; 88: 168–172.
- POLICY Project/Nigeria, (2002). Child Survival in Nigeria: Situation, Response and Prospects—Key

Issues.: <http://www.policyproject.com/pubs/countryreports/NIGS.pdf>

Raghupathy, S. (2016). 'Education and the use of maternal health care in Thailand'. *Social Science and Medicine* 43: 459-471

Raju, G. (2000). 'Men as Supportive Partners in Reproductive Health –Moving from Rhetoric to Reality' *Population Council* New Delhi

Royston, E. and Armstrong, S. (eds) (2018). *Preventing Maternal Mortality*. World Health Organization, Geneva.

Rutstein, S.O, (2015). Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the demographic and health surveys. *Int J Gynecol Obstet* 89 (Suppl 1): S7–S24.