

# DETERMINANTS OF THE CHOICE OF HEALTHCARE SERVICES DURING AND AFTER PREGNANCY IN SOME SELECTED RURAL AREAS IN KADUNA

GIMBA Victor Kyari<sup>1</sup>; ABDALLAH Zubairu Tajo<sup>1</sup>; CHENBAP Ruth John.<sup>1</sup> MUHAMMED Ibrahim<sup>1</sup>; DOGARA Micah<sup>1</sup>; JOSHUA Istifanus Anekoson<sup>2</sup>; AYUBA Peter<sup>3</sup> & GIMBA Selbyen Evelyn<sup>4</sup>

<sup>1</sup>Department of Economics, Kaduna State University

<sup>2</sup>College of Medicine, Kaduna State University

<sup>3</sup>Department of Mathematical Sciences, Kaduna State University

<sup>4</sup>Department of International Relations, Air force Institute of Technology, Kaduna

## ABSTRACT

Nigerian government in collaboration with donor agencies are making spirited effort to create awareness of the importance of antenatal care (ANC) most especially in rural areas. So that pregnant women will take ANC seriously. However, this has not yielded the desired result, hence, a study of this nature is a welcome development. Therefore, this studies focuses no investigating the determinants of the choice of healthcare services during and after pregnancy in some selected rural areas in Kaduna state. This was achieved through Focus Group Discussion (FGD) and Key In-depth Interview (KII) in the selected local government areas of Kaduna state. The qualitative data was transcript and analysed using content analysis method. The results show their knowledge about ANC, due to low literacy level and religious factor in most rural settlements visited. Furthermore, demand and supply side on ANC facilities are also poor and do not meet the minimum standard. The study concludes that demand and supply of ANC fall short of equilibrium, both are too low. Therefore the study recommended that government in collaboration with non-governmental organization such as World Health Organization (WHO) and UNICEF should design and implement campaign/interventions to enhance the literacy level and advocacy to reduce the influence of religion in healthcare service.

**Keywords:** Healthcare, Rural, Focus Group Discussion Key in-depth Interview, Demand and Supply

## INTRODUCTION

The behaviour of pregnant women varies from place to place and from time to time. When a woman is pregnant the demand for healthcare service is determine by many factors, some factors could be based on religious belief, culture or social status of the woman. The demand and supply of health services during pregnancy, at birth and immediately after birth are notably important for the health and survival of the mother and child. According to WHO (2012), human capital is a set of cognitive, physical nutritional and biological aptitudes which reinforce human capacities. Human capital has two main components: education and health. When the two function well, the human capital becomes productive and develop rapidly. Studies have shown that African countries are lagging behind in terms of demand and supply of healthcare services.

In Africa, less than 50% of births were attended by a skilled worker (WHO, 2014) despite an increase from 55% to 66% between 1990 and 2011 in all developing regions as indicated by the 2013

Millennium Development Goals Report (The MDG Report, 2013). These figures are far lower than the global target for this indicator which aimed

Empirical studies have shown that antenatal care, a section of maternal healthcare, and cushions women with the support to detect early problems associated with pregnancy and to reduce imminent labour (Doku et al., 2012). It is of this view that the Ghana Ministry of Health introduced the free maternal healthcare delivery nationwide in April 2005 of which antenatal care was a major component. The policy is expected to reduce the cost on maternal services which serves as a burden to pregnant mothers and reduces maternal mortality rate. The policy in Ghana is expected to increase maternal healthcare utilisation and cost-effectiveness, and despite being universal in application, it can benefit the poor in rural areas. In spite of this intervention, several factors such as the need for adequate funding and strong institutional ownership beset the free maternal healthcare policy (Sophie et al., 2009). Others are poor infrastructure in the rural communities, lack of government commitment to the development of rural health systems, geographic isolation to rural healthcare, and poor socioeconomic characteristics of women especially the rural counterparts.

According to Babalola, and Adesegun, (2009) utilization of maternal health services is associated with improved maternal and neonatal health outcomes. Considering global and national interests in the Millennium Development Goal and Nigeria's high level of maternal mortality, understanding the factors affecting maternal health use is crucial. Studies on the use of maternal care services have largely overlooked community and other contextual factors. Envuladu, Agbo, Lassa, Kigbu, and Zoakah (2013) noted that significant number of women in developing countries, particularly in the sub-Saharan countries, do not have the opportunity to be attended to by skilled personnel during childbirth. This is a major factor in maternal and infantile mortality.

However, Machira and Palamuleni (2017) stated that maternal mortality remains a public health challenge claiming many lives at the time of giving birth lives. However, there have been scanty studies investigating factors influencing women's use of public health facilities during childbirth High maternal mortality remains a challenge for the attainment of the third Sustainable Development Goal in Sub-Saharan Africa. Atahigwa, et al. (2020) noted that in Kenya, maternal mortality ratio remains high at 362 deaths per 100,000 live births. Socioeconomic and geographical inequalities affected utilization of health facility childbirth services to ensure safe birth and reduction of maternal mortality. Study revealed by

Muhammad and Tepanata (2019) shows that in Gombe state in northeast Nigeria records a high prevalence of home deliveries with very low facility deliveries despite the efforts of government and international non-governmental organizations in supporting maternal health services. Jonathan and John Onzaberig (2019) stress the important of quality maternal health care that women receive during pregnancy and delivery is important for the health of both the mother and the baby. However, most pregnant women do not receive the minimum number of antenatal care (ANC) services (at least 4 times during pregnancy) as recommended by the WHO. Gopal, Duncan, Seruwagi, and Taddese, (2020) investigates how key stakeholders within the health system in Uganda engage with the male involvement agenda and implement related policies. The study analyzed men's perceptions of male involvement initiatives, and how these are influenced by different political, economic, and organizational factors. The study employed qualitative study utilizing data from 17 in-depth interviews and two focus group discussions conducted in Kasese and Kampala, Uganda. Men involved in a maternal health project, their wives, and individuals and organizations working to improve male involvement were purposively selected to participate. The result of the study revealed that most health workers interviewed have not been adequately trained to provide male-friendly services or to mobilize men. Interventions are highly dependent on external aid and support, which in turn renders them unsustainable. The result further revealed that, community and religious leaders, and men themselves, are often left out of the design and management of male involvement interventions. The study recommend bottom-up approach to male involvement that emphasizes solutions developed by or in tandem with community members, specifically, fathers and community leaders who are privy to the social norms, structures, and challenges of the community

Akowuah and Danquah (2019) examined the determinants of women's satisfaction on antenatal care use in selected health facilities in the Kwabre East Municipality of Ghana. Using facility-based cross-sectional survey design, a three-stage sampling technique was conducted to sample 220 women attending postnatal care at selected public health facilities. Open-ended questionnaires were used to obtain data from respondents. Descriptive statistics and inferential statistics including binary logit regression model was used to analyze the data with the help of SPSS and STATA software. Logit analytical framework was computed to determine equations of variance. The association between antenatal care use and women's satisfaction was determined and assessed using Pearson's  $\chi^2$  (2) test indicating 1 percent was run. Most women represent 92.7 percent had at least four ANC visits during their entire pregnancy. The results indicate standard deviation of 7 with 81 percent regular ANC visits and 19 percent irregular. Most women 55 percent received care by one caregiver, followed by women 35 percent who received care by two caregivers and women 10 percent who were cared for by three caregivers. The regression results showed varying utilization levels of 10 percent, 5 percent and 1 percent ANC satisfaction. The suggest system induced factors that are aimed at promoting maternal care use satisfaction.

Rosa'rio, Gomes, Brito, Costa, (2019) examined the demographic and social factors influencing antenatal care and health facility delivery among women in Dande and to understand their impact on birth outcomes. The study was based on community-based

longitudinal data collected by the Dande health and demographic surveillance system between 2009 and 2015. Data on pregnancy outcomes (10,289 outcomes of 8,066 women) were collected for all reported pregnancies, including sociodemographic information, health services utilization and women's reproductive history. Logistic regression was used to investigate the determinants of birth outcomes, antenatal care attendance and institutionalized delivery. The result of the study revealed that of 10,289 pregnancy outcomes, represent 98.5 percent resulted in live births, 96.8 percent attended antenatal care, and 82.5 percent had four or more visits. Yet, 50.7 percent of the women delivered outside a health facility. Antenatal care attendance was a determinant of birth outcomes. Older women, with lower education, living at a greater distance of a health facility and in rural areas, were less likely to use maternal health care. Having had previous pregnancies, namely resulting in live births, also decreased the likelihood of health care utilization by pregnant women. The study conclude by identifies relevant social determinants for the utilization of antenatal care, place of delivery and their impact on birth outcome, thereby providing insight on how best to address inequities in health care utilization

Using the system Generalized Method of Moments in a bid to overcome the endogeneity problem inherent in the model of study Azuh, Ogundipe, and Ogundipe, (2019) texamined the socio-economic determinants of women access to healthcare services in Sub-Saharan Africa for the period 1995-2015. The study adopted the dynamic panel model and estimated it. The study harmonized the theoretical strands in the literature by describing the measure of access revealed that health service availability such as community health workers, physicians, nurses and midwives and hospital beds improve women's access to healthcare facilities in Africa. The result further revealed that health service utilization indicators such as population density worsen the quality of healthcare services available to women while electricity access and private health expenditure enhance women's access to quality healthcare delivery. Health service decision indicators such as female bank account ownership, female labour force participation, attainment of basic education and female household headship were important in enhancing women's access to healthcare facilities.

Jonathan and John Onzaberig (2019) sought to identify the types of maternal health care services (MHCS) received by women during pregnancy and delivery and after childbirth and women's reasons for use and nonuse of MHCS. Methods. The study adopted the social survey design where 366 women was sampled using probability sampling technique. The data was collected through the use of questionnaire. The study revealed that some sociocultural factors such as age, religion, traditional belief system, education, and marital status influence women's use of MHCS in the Talensi District. The study further revealed that, factors such as women's National Health Insurance Scheme status, distance to health center, and attitude of health care professional determine their utilization of MHCS. The study revealed that these factors influence choice for traditional birth attendants over biomedically-based maternal health care services. The study recommended that there should be education for women on the need for them to utilize MHCS during pregnancy and delivery and after childbirth. Government should organize skill training for traditional birth attendants in the Talensi District.

Okedo-Alex, Akamike, Ezeanosike, and Chigozie, (2019) examine the determinants of antenatal care (ANC) utilization in sub-Saharan Africa. Data was source from PubMed database, Ovid data base, Embase database, Cinahl database and Web of Science from 2008 and 2018. The study employed multivariate analysis. The quality assessment tool for observational cohort and cross-sectional studies was used to assess the quality of the studies while the Andersen framework was used to report findings. The study revealed that socioeconomic status, urban residence, older/increasing age, low parity, being educated and having an educated partner, being employed, being married and Christian religion as predictors of ANC attendance and timeliness. It further revealed that awareness of danger signs, timing and adequate number of antenatal visits, exposure to mass media and good attitude towards ANC utilization made attendance and initiation of ANC in first trimester more likely. The study revealed that having an unplanned pregnancy, previous pregnancy complications, poor autonomy, lack of husbands support, increased distance to health facility, not having health insurance and high cost of services negatively impacted the overall uptake, timing and frequency of antenatal visits. The study recommend inter sectoral collaboration to promote female education and empowerment, improve geographical access and strengthened implementation of ANC policies with active community participation.

Madhi, Luis, Xavier, Menéndez, Carrim-Ganey, Mark, Darren. Luttig, Candelario, Baker and Mahua, (2018) evaluate factors influencing maternal/infant access to healthcare facilities to identify potential barriers to participation in future clinical trials on maternal vaccination. The study employed multi-centre, observational study with 3,243 pregnant women enrolled at ten sites across Panama, the Dominican Republic, South Africa, and Mozambique between 2012 and 2014. Logistic regression was used to identify factors significantly associated with return to study site for delivery or infant follow-up visits. The study revealed that among 3,229 enrolled women with delivery information, 63.6 percent (range across sites: 25.3 – 91.5 percent) returned to study site for delivery. Older women and those at later gestational age at enrolment were more likely to deliver at the study site. While heterogeneities were observed at site level, shorter travel time at delivery and increased transportation costs at enrolment were associated with increased likelihood of women returning to study site for delivery. Among 3,145 women with live-born infants, 3,077 (95.3 percent) provided 90-day follow-up information; of these, 68.9 percent (range across sites: 25.6 – 98.9 percent) returned to study site for follow-up visits. Women with other children and with lower transportation costs at delivery were more likely to return to study site for follow-up visits. Among 666 infants reported sick, 94.3 percent was taken to a healthcare facility, with only 41.9 percent (range across sites: 4.9 – 77.3 percent) to the study site. The study recommend for post-partum surveillance to be broadened beyond the study sites and additional follow-up visits should be planned within the neonatal period

Using multivariate and binary logistics regression analysis Machira and Palamuleni (2017) explore the factors associated with women choice of public health facility during childbirth. The study used 2010 Malawi demographic health survey dataset to estimate the determinants influencing women's use of public health facilities at the time they give birth. The result of the study revealed that of 23,020 women respondents participated, 8,454 women

respondents represent 36.7 percent chose to give birth in public health facilities. The result of multivariate analysis reported that frequency of antenatal care, birth order, women's education, wealth status and quality of care was the major predictors increasing women's choice to use public health facilities at childbirth. The study recommend the need to use multimedia approach to engage women on significance of utilizing public health facilities during childbirth and promote quality of care in facilities if their health outcome is to improve in Malawi.

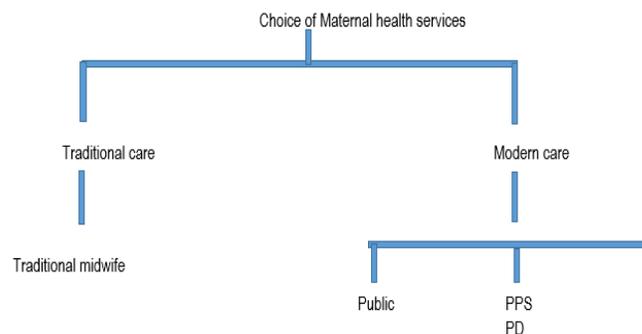
Perkins, Capello, Vilgrain, Groth, Billoir, and Carlo, (2017) examined the determinants of low maternal and newborn health service utilization in Haiti. The study use cross-sectional design using mixed methods approach. The quantitative component consisted of a randomized survey of 320 women who had given birth during the previous year living in the intervention area. Qualitative methods included focus groups discussions with eight women and two male partners and semi-structured interviews with 10 health workers: The result of baseline study revealed a number of factors which contribute to low use of MNH services in Haiti, with lower utilization in rural compared to urban areas. Notably, while use of antenatal care (ANC) remains relatively high, with 83 percent of women receiving ANC 1, only 34 percent of women give birth in the presence of a skilled birth attendant. Awareness of maternal health needs remains low, with few respondents able to cite three danger signs during pregnancy represent 63 percent, birth represent 41 percent and after birth represent 39 percent. FGDs with men revealed low knowledge, as well. Geographic and financial barriers remain important obstacles. The result further reveal that women express low satisfaction regarding health services and interactions with providers. The study concludes that effective improving MNH in Haiti requires action at both the community- and health services-level to address the multitude of factors contributing to low utilization of services.

Johnson, Obidike, Eroh, Okpon, Basse, Patrick, Ebong, and Ojumah, (2020) in their study determine the choices and determinants of delivery locations among mothers attending a primary health centre (PHC) in southern Nigeria. The was based on a descriptive cross-sectional study among mothers attending PHC, West Itam, Itu, Nigeria. Data were collected using interviewer-administered questionnaire and analyzed with STATA version 12.0. Level of significance was set at 0.05. The result revealed that a total of 185 mothers participated in the study. The mean age of respondents was  $27.6 \pm 5.2$  years. The delivery locations of last pregnancy were health facility represent 64.9 percent, traditional birth attendant's place represent 23.3 percent, and respondent's residence represent 6.3 percent and church represents 5.4 percent. The study revealed top five reasons that influenced the choice of delivery locations were distance represent 45.4 percent, cost represent 34.6 percent, and skills of healthcare workers represent 30.3 percent, drug availability represent 27.6 percent and attitude of healthcare workers represent 26.5 percent. The study further revealed that utilization of healthcare facilities for delivery increased significantly with level of education and income of respondents and spouses with ( $P < 0.05$ ). The study recommend that pregnant women be offered free or highly subsidized healthcare services to encourage their delivery at health facilities. Healthcare providers should endeavor to develop better relationship with clients who patronize their services. Female education should also be encouraged as this would empower them to make better choices about their health services options.

Using bivariate and multivariate analyses to determine the factors associated with choice of birth center Muhammad and Tepanata (2019) assess the factors influencing the decision to choose a birth center by pregnant women in Gombe, Nigeria. The paper was a cross-sectional study of women from a baseline survey conducted in August 2016 in Gombe state. Data was collected from 157 pregnant women on women groups' utilization of maternal services with a focus on antenatal care, delivery and postnatal care using a structure questionnaire for household survey in the state. The study revealed that result from bivariate analysis found age, marital status, membership of the savings group, religion and gestational age were all significantly associated with the choice of health facility as a birthplace. The study further revealed that availability of health facility nearby, paid work in the seven days preceding the survey, having previous pregnancies and knowledge of the signs of pregnancy complications was also significantly associated with the choice of birthplace. The study recommend that role of religious leaders and encouraging savings from women earnings need attention of the government to improve facility-based delivery. The difference arises from the fact that the present study focus on determinants of the choice of healthcare services during and after pregnancy.

From the review of the previous studies, it was observed that most of them focused on determinants of the choice of healthcare services women delivering. However, few or none of the studies on determinants of the choice of healthcare services during and after pregnancy was conducted in Nigeria even the studies carried out nationally was based on the determinants of a choice of a place of delivery among pregnant women. Most of the studies failed to show the method of data analysis. The present study filled this gaps left out in the studies by focus on determinants of the choice of healthcare services during and after pregnancy in Kaduna State Nigeria.

According World Health Organization (2000), antenatal healthcare is "care a pregnant mother receives before birth" and involves among other services education, screening, counselling, treatment of minor ailment, and immunisation. Antenatal care coverage, however, is defined by Arthur (2012) 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." According to the Ghana Ministry of Health (2007), the basic objective of antenatal care in Ghana is to "promote and maintain" the health status of the pregnant mother. Its main purpose is early detection and management of pregnancy-related complication (Cameron, Glasier, Johnstone, Dewart, and Campbell, 2015). However, the study aims at investigating the determinants of choice of healthcare service by pregnant women in some selected rural areas in Kaduna state.



**Key**  
 PPS - Private Profit Seeking and PD Private Denominational  
 Source: Anya & Yene (2016)

### METHODOLOGY

The target population of the study is poor performing health facilities purposively selected for the study and mothers exiting health facilities who do not use ANC services. The multi stage technique will be adopted, in the four poor rural performing LGAs according to the Kaduna State 2014 ANC statistics.

These LGAs include Sanga, Kaura, Soba and Sabon Gari, Four Facilities will be purposively selected in each LGA as such a total of 20 facilities will be studied. Yamane formula was used at 1% significant level to obtained sample size from the total ANC attendees in each of the four LGAs, from January - December, 2014.

A descriptive cross sectional study design was adopted targeting young mothers, fathers and mothers in law for FGD and religious/community leaders, health managers and health personnel for the KII. A total of 12 FGDs were conducted using an 11 guide questions. Each group consisted of young mothers and fathers, old mothers and fathers, traditional healers and community leaders. In the rural LGAs, groups of additional categories of traditional healers were involved to provide opportunity to explore variability of views of different traditional healing practices on immunization. Each FGD was conducted by trained moderator and note taker who are fluent and conversant with the culture and language of the FGD members using the guideline. Each group was made up of 8 to 10 members of the same age group and sex to allow for freedom of expression of opinion and no member was allowed to dominate any aspect of the discussion.

Three hard to research villages were selected from each senatorial zone. The selection was done based on the local government primary healthcare recommendation. And their reason for the nomination was also based on the high rate of MNCH cases in those villages. The research was conducted between February to June, 2018 by two enumerators per villages for interview, note taking, audio and photographer.

The data collated from the research was qualitative in nature and hence qualitative data analysis was suitable to analyse audio tapes, note ate photograph. Audio tapes were transcript through careful listening. Responses from notes and audio tapes for every question were organized in tables. State wise table of contents were developed where responses were recorded against every question of contents and used for analysis. Table for behaviour matrix analysis was prepared. The entire research team met twice to talk about situations that were unclear, deliberated upon and brought clarity to know about the exact situation. The experts on

qualitative data analysis, external to the research team, were engaged in preliminary analysis of findings.

Focus Group Discussions are useful for understanding cultural norms or an overview on issues such as that on the objective of this study.

## RESULTS AND DISCUSSION

The respondents for this study were drawn from the rural of the four local government areas of Kaduna state. Preliminary findings show that there are many factors that determine the choice of healthcare services by pregnant women. Approximately, 8 out of 10 respondents affirmed that they prefer to see modern healthcare workers rather than traditional birth attendants (TBAs). Furthermore, they also affirmed that when women are pregnant in their locality, they prefer to visit modern healthcare centres. Some said they visit hospital during pregnancy because of the good teachings they get for safe delivery while others said because of laboratory services such as scanning. Majority said because of experience health works; *"we prefer going to General Hospital Gwantu because of the experience of health workers"*- (Mantur village, Sanga). This implies that expectant mothers travel from hard to research areas in search of better service not minding the distance.

Among other factors, the study revealed that the level of education of woman has a significant effect on the choice of the type of service. Women with low or uneducated prefer to visit the traditional midwives to modern healthcare services. Similar result is found by Anya & Yene (2016).

Furthermore, advocacy visit by volunteer community mobilizer (VCM) is another factor that determine the choice of healthcare service by the pregnant women. Very place admitted that VCM have visited their communities; *"no VCM has not visited us, in fact we have not seen anyone in our village for the past two years (Respondents in Kadagge Soba, LGA)*. While others in few places said that VCM visits their settlements. FGDs in Ungwan Falke said Samaila Haruna in charge of Ungwan Dogo, Soba LGA visit their settlement regularly). The result of this study contradicts the earlier findings of UNICEF, 2016 on MNCH that VCMs visit communities in Northern Nigeria regularly.

In Ungwan Falke a pregnant woman said *"Some of the barriers are distance, money, lack of adequate knowledge about the service, hindrance from my husband, lack of good road, we don't need to go to the hospital if we are okay"*. This implies that husbands are also hindrance to their wives attending ANC. Whereas some women feel that they can deliver without going to the hospital. *"Some women feel that they have good health that they can deliver by themselves without going to hospital and sometime laziness."*- (Ungwan Bako, Sanga LGA).

### Key finding: Pregnant Women Visit Health Facility at Least 4 Times for Antenatal Care

1. Most FGDs are familiar with the importance of antenatal care during pregnancy; they were able to mentioned well-being of both the mother and the child.
2. It was reported that almost half of the pregnant women see TBAs or stay at home, the reasons because health facilities are far and no transport money to travel to the health facility. In the other hand those who go to the health facility do that because of the desire to have good health services from the trained health personnel.
3. Communities have divergent view on the stage a pregnant woman goes to the health facility for first time. Some said when the pregnancy is 3-5 months while others said there is no need for a pregnant woman to visit hospital until when there is complication with the pregnancy.
4. Communities also have divergent view on the proportion of pregnant women visit health facility at least 4 times during a pregnancy. Some said 3 out of 10, 4 out of 10, 5 out of 10, 6 out of 10, among others things.
5. It was reported that the motivating factors that enable pregnant women of the communities visiting health facility for ANC at least four times during a pregnancy are; free cost of drugs, trained health workers, provision of mosquito net, need for safe delivery among other things.
6. It was reported that the factors prevent women (barriers) from going to health facilities for ANC are; lack of money, distance, bad road, husband, lack of awareness among other things.
7. Radio, VCM, IPC and health workers were mentioned as the main sources of information on antenatal care.
8. The study finds out that most pregnant women travel to far distance health facilities for antenatal care.

Most respondents said women that attend antenatal care services stand to benefit on so many things which includes safe delivery, good health for both mother and child, good drugs, they will be taught on how to eat good food and avoid loss of mother and child. Someone said ***'antenatal care is good because it helps the woman and the child to stay healthy but we do not do it because we do not have health facility nearby.'*** - Young mothers comment from Tudun Fulani in Sabon Gari LGA. Some of these findings are in line with Gopal, Duncan, Seruwagi, and Taddese, (2020).

The respondents adjudged antenatal care to be very important and went further to say that when most women are pregnant they surely see health workers. Few individuals said they patronise both health workers and traditional birth attendants. **'Why because of the distance of health facility, one has to get an alternative,' a Young mothers comment from Ungwan Bako Sanga LGA.** Most women in the communities visited go to see health personnel when they are pregnant, some of the reasons given were; avoidance of complications during child birth and mother and child good health. Furthermore, some believe that only in times of complication that a pregnant woman needs to see a health worker. The reason is that a woman should deliver naturally without any problem but where there is problem, the woman can see a health worker.

In their responses to what they would consider appropriate antenatal care for women in their communities, some said drugs are given freely; health workers check the health of the mother and that of the unborn child. Most participants said pregnant women register for antenatal as early as two-four months of pregnancy. **(We go to the hospital for early detection so that regular medications and education on what do and what not to do).** In their own perception, some respondents said that a pregnant woman supposed to go for antenatal every month while others said at least 4, 5 or 6 times before delivery. This is a clear indication that the perception of respondents toward the number of times for one to go for antenatal is encouraging.

The participants in this study responded differently based on their practice and experience in the past. Most respondents in Sabon Gari LGA said a pregnant woman visit health facility when there a problem. In their community a normal woman should deliver in the comfort of her room where would be taken care of by her neighbours but if there is complication then she should be taken care of by health workers. Still in Sabon Gari LGA some respondents said when the pregnancy is 3 month some said 7 months. Similarly, the respondents in the remaining three LGAs have divergent views. Some said pregnant woman visit health facility in their community when the pregnancy is 3, 4, 5, 6 or even 7 months old. This is to enable proper check up to avoid complication. Others do not visit hospital until there is complication. **(Our pregnant women do not visit hospital until when there is a problem, this is because we do not have health facility nearby and in raining season we cannot go out of this place).**

Most participants are of the opinion that a higher proportion visit health facility at least four times during pregnancy. Yet in the same communities some said pregnant women do not visit health facility at all. Every respondent gave answers based on his or her experience as an individual. Among other things, some said they do not have idea while some said all pregnant women visit health facility at least 4 times during their pregnancy. Some also said 5 out of 10 while others said 6 out of 10. **(We do not know the proportion because we did not attend school 'boko' we did only Islamic education 'Islamiya')**

The participating mothers, grandmothers and fathers considered the need for good mothers' and child health, free of cost services among others. Few said they have no idea on what could motivate them. This perception is coming from those who see nothing good for a pregnant woman to visit a health facility. They feel a pregnant

woman should deliver in the comfort of her home except when it becomes necessary may be due to complication before she is taken to the health facility.

Young mothers, grandmothers and fathers explained a number of conditions that complicates or prevents women from going for antenatal. These conditions are related to the accessibility of the services and the economic constraints. If the health facility is distant then it is hard for the pregnant women to go for antenatal, especially during raining season when some communities do not have bridges across their rivers. **'The health facility is far away, that is why I could not go for antenatal.'** Although the most of the health facilities provide drugs free of charge, pregnant women need money for the transportation. Some pregnant women could not fully attend antenatal because of transportation cost. **'Though sometimes antenatal drugs are free, but you need to find money for the transportation, since we could not get money we could not go for antenatal care' - Young women comment from Kaura.** As found in Akowuah and Danquah (2019), were their results indicate standard deviation of 7 with 81 percent regular ANC visits and 19 percent irregular. Most women 55 percent received care by one caregiver, followed by women 35 percent who received care by two caregivers and women 10 percent who were cared for by three caregivers.

Another barrier that prevents pregnant women from going for antenatal is the negative and the judging attitude of the health care workers when the pregnant woman comes late or skips an appointment for antenatal made pregnant woman uncomfortable. Therefore, the pregnant woman would rather prefer to stay at home when discovers she is late or has skips an appointment. Some of the respondents, mostly young women said their husbands do not allow them to go to anywhere because is against their religion for a house wife to be seen in public place most especial where men are the health workers. **'My husband does not allow me to go anywhere without his permission most especial when the place is far - Soba.'** When she was asked to explain why she said **'is against our religion for a woman to be seen outside the house without her husband's permission'**

As stated above the sources of information in most of the communities are radio, traditional leaders, religious leader, VCM, IPC and some said their husbands among others. Antenatal care as an important thing in the life of a pregnant woman, it is therefore necessary for pregnant women to attend<sup>11</sup>. Some participants in this study mentioned government health facilities nearest to them because they offer free of charge services, prompt checks and qualified health workers. Some respondent mentioned a local attendant (Mantur) because she is allows there when you call on her.

### Key findings: Mothers Seeking Institutional Delivery

1. Most FGDs in Sabon Gari and Soba mentioned home as the place preference to deliver because of the distance of health facilities, lack of money to go to the hospital, need for privacy among other things. In Sanga and Kaura mentioned they prefer to deliver in the hospital where trained nurses will take care of both mother and baby.

2. Most FGDs reported that hospital is the ideal place for women to deliver is hospital in case there is complications while few FGDs reported that for privacy sake women should deliver at home.

3. It was reported that the practice and experience of most pregnant women is that they deliver at home due lack of money, distance, bad road and need for privacy.

4. Most FGDs reported that some of the factors that will promote use of health facilities by women for delivery are; health facility in the community, free and availability of drugs, availability of trained workers, good treatment by the health personnel among other things.

5. Communities also have divergent view on the proportion of pregnant women deliver in health facilities. Some said 3 out of 10, 4 out of 10, 5 out of 10, 6 out of 10, some FGDs said majority of pregnant women deliver at home among others things.

Therefore, majority of respondents mentioned the following as motivating factors that are enabling pregnant women of their community visiting health facility for ANC at least four times during a pregnancy:

- i. For the good health of the mother and child before delivery
- ii. Health of the mother and child, for the strength of the mother body, easy access to ANC service
- iii. Gifts and drugs
- iv. We see Doctors and Nurses easily
- v. Free gift and services

### Conclusion/Recommendations

The study identifies the determinant of choice of healthcare facility for ANC by the pregnant women in selected rural areas in Kaduna state. A qualitative survey shows that education, religion, availability of health works, proximity of the healthcare facility among others determine the demand for modern healthcare services in the selected rural areas of Kaduna state. In addition, inadequate health facilities was reported as a major factor that is affecting the demand for healthcare services in most of the rural settlements. Most health care seekers travel long distances to health facilities and with the deplorable condition of roads makes it almost impossible for some communities to access health facility during raining seasons. Therefore, have no option than to visit traditional midwife or stay without any ANC throughout the

pregnancy. Furthermore, it is recommended that after choosing the ANC service provider by pregnant women, it is necessary analyse the factors that determine the choice of ANC. This will help supply and demand side to fall to equilibrium. The study also recommend that government and stakeholders to make concerted effort in increasing literacy level, especially among women. This will help women to know the importance of ANC.

### REFERENCES

- Akeju, D.O., Olufemi, T. O., Marianne, V., Adepoju, A. A., Sawchuck, D., Qureshi, R., Muftaut, S., Olalekan, O. A., Peter von, D. and CLIP Nigeria (2016). Determinants of health care seeking behaviour during pregnancy in Ogun State, Nigeria. *Reproductive Health* (1)32 67 – 97. DOI 10.1186/s12978-016-0139-7.
- Akouwah, J.A. and Danquah, B.A. (2019). Determinants of women's perceived satisfaction on Antenatal care in urban Ghana: A cross-sectional study. *Clin J Obstet Gynecol.* 2019(2) 038-053. <https://doi.org/10.29328/journal.cjog.1001022>
- Almeida, L.M. and José, C. (2014). Social Determinants of health in pregnancy, postpartum and early motherhood: the impact of migration. *methaodos.revista de ciencias sociales* 2 (1) 154-160.
- Any, S. B. N. and Yene, A. (2016). The determinants of the choice of treatment of pregnant women in Cameroon. *Health Economics Review*, ISSN 2191-1991, Springer, Heidelberg, 6(48), 1-9. <http://dx.doi.org/10.1186/s13561-016-0127-1>
- Atahigwa, C., Damazo, T. K., Samuel, I., Steven, A. and Annelies, V. R. (2020). Trends and determinants of health facility childbirth service utilization among mothers in urban slums of Nairobi, Kenya. *Global Epidemiology* 2 (2020) 100029. Available at <https://www.journals.elsevier.com/global-epidemiology>.
- Azuh, D., Ogundipe, A., and Ogundipe, O. (2019). Determinants of women access to healthcare services in Sub-Saharan Africa. *The Open Public Health Journal*, 12, 504-514 DOI: 10.2174/1874944501912010504.
- Babalola, S. and Adesegun, F. (2009). Determinants of use of maternal health services in Nigeria – looking beyond individual and household factors. *BMC Pregnancy and Childbirth* 9:43 doi: 10.1186/1471-2393-9-43.
- Envaladu, E.A, Agbo, H.A, Lassa, S, Kigbu, J.H, and Zoakah A. (2013). Factors determining the choice of a place of delivery among pregnant women in Russia village of Jos North, Nigeria: achieving the MDGs 4 and 5. *International Journal of Medicine and Biomedical Research* 2(1) 23 – 27.
- Gopal, P., Duncan, F., Seruwagi, G. and Taddese, H.B. (2020). Male involvement in reproductive, maternal, newborn, and child health: evaluating gaps between policy and practice in Uganda. *Reproductive Health* (2020) 17:114 <https://doi.org/10.1186/s12978-020-00961-4>
- Johnson, O.E., Obidike, P.C., Eroh, M.U., Okpon, A.A., Bassey, E.I., Patrick, P.C Ebong, P.E., and Ojumah, E. (2020). Choices and determinants of delivery location among mothers attending a primary health facility in Southern Nigeria. *Nigerian Postgraduate Medical Journal* 2020(27):42-48.
- Jonathan, M. D. and John Onzaberig, N. (2019). Sociocultural Determinants of the Utilization of Maternal Health Care Services in the Tallensi District in the Upper East Region of

- Ghana. *Hindawi Advances in Public Health* 2019: 1- 11  
<https://doi.org/10.1155/2019/5487293>.
- Machira, K, and Palamuleni, M. (2017). Factors influencing women utilization of public health care services during childbirth in Malawi Public health facility utilization. *African Health Sciences*.17 (2): 400-408.  
<https://dx.doi.org/10.4314/ahs.v17i2.14> .
- Madhi, A. S., Luis, M. R., Xavier, S. L., Menéndez, C., Carrim-Ganey, N., Mark, F. C., Darren. K., Luttig, M.M., Candelario, R., Baker, S. and Mahua, R. (2018). Factors influencing access of pregnant women and their infants to their local healthcare system: a prospective, multicenter, observational study. *BMC Pregnancy and Childbirth* (2018) 18-29 DOI 10.1186/s12884-017-1655-3.
- Muhammad B. Y. and Tepanata P. (2019). Factors influencing the decision to choose a birth center by pregnant women in Gombe state Nigeria. *Journal of Health Research* 33(3) 228-237 DOI 10.1108/JHR-10-2018-0129.
- Okedo-Alex, I.N., Akamike, I.C., Ezeanosike, O.B., and Chigozie, J. U. (2019). Determinants of antenatal care utilization in sub-Saharan Africa: a systematic review. *BMJ Open* 2019; 9:e031890. Doi: 10.1136/bmjopen-2019-031890.
- Perkins, J., Capello, C., Vilgrain, C., Groth, L., Billoir, H., and Carlo, S. (2017). Determinants of Low Maternal and Newborn Health Service Utilization in Haiti: A Community-Based Cross-Sectional Study. *J Womens Health, Issues Care* 6:1.
- Rosa rio, E.V.N, Gomes, M.C., Brito, M., Costa, D. (2019) Determinants of maternal health care and birth outcome in the Dande Health and Demographic Surveillance System area, Angola. *PLoS ONE* 14(8): e0221280.  
<https://doi.org/10.1371/journal.pone.0221280>.