

**SPATIAL VARIATION IN MATERNAL HEALTH-SEEKING  
BEHAVIOUR IN IBARAPA REGION, OYO STATE, NIGERIA**

**BY**

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## ABSTRACT

Maternal health seeking behaviour is influenced by availability and access to health-care facilities. Previous studies on maternal health-seeking behaviour have focused on the effects of the cost of services, accessibility, availability and the utilisation with little or no attempt to investigate the spatial dimensions. This study therefore, was designed to investigate spatial variation in health-seeking behaviour of women of child bearing age in Ibarapa Region, a rural district in Oyo State with a view to improving the provision and accessibility of maternal health facilities.

Anderson model and Attitude, Social Influence and Self Efficacy model provided the framework while a survey design was adopted. A structured questionnaire which focused on demographic and socio-economic characteristics (age, monthly income, and educational qualification), spatial variation and barriers in the utilisation of Maternal Health care Services (MHS) was administered at the maternity centres on randomly selected consenting women of child bearing age in Ibarapa East 227, in Ibarapa Central 239 and in Ibarapa North 241 Local Government Areas. Also, one tertiary, three secondary and five primary health care facilities were purposively selected. Descriptive statistics, Nearest Neighbour Analysis (Rn), Analysis of variance, Stepwise multiple regression and Logistic regression were used to analyse quantitative data at  $p \leq 0.05$  while qualitative data collected through fifteen in-depth interviews (IDIs) and six key informant interviews (KIIs) were content analysed.

Respondents' age was  $26.8 \pm 5.3$  years. Over 85.0% earned less than ₦20,000 per month while 34.4% had secondary education. Over 98% had knowledge of (MHS). This varied from 32.0% in Ibarapa East, 32.8% in Ibarapa North and 33.5% in Ibarapa Central. Eighty per cent had preference for utilisation of orthodox facilities and this varied from 23.3% in Ibarapa East, 26.3% in Ibarapa North and 30.4% in Ibarapa Central. Whereas, 20.0% had preference for non-orthodox MHS. Over 58.0% of the women indicated that distance to nearest MHS was less than 5km, attitude of health workers (62.0%), physical accessibility (49.5%) and location of facility (31.1%), were barriers to utilization of MHS. The distribution of health care facilities in Ibarapa Region was clustered ( $R_n = 0.451$ ). There were significant differences in the utilisation of MHS by women of child bearing age  $F_{(29, 677)} = 2.424$ . Utilisation of MHS was influenced by cultural beliefs (acceptance or rejection of MHS) in Ibarapa Central ( $\beta = 0.279$ ), marital status in Ibarapa North ( $\beta = 0.115$ ) and cultural beliefs, wife's ethnicity and education in Ibarapa East ( $\beta = 0.121$ ). Facility accessibility (OR:4.386; CI:1.446-13.297), quality of service (OR:0.360; CI:0.144-0.898) and belief system (OR:0.245; CI:0.102-0.587) were significant barriers to the utilisation of MHS. Non-challant attitude of nurses and inadequate health professionals in government hospitals, unkempt environment of traditional birth attendants and inability of the health workers to handle complications during delivery were the perceived major challenges to maternal health seeking behavior in Ibarapa Region.

Maternal health seeking behaviour varied among child bearing women in Ibarapa Region due to the clustered nature of health care facilities. There is the need to mainstream improved provision and utilisation of maternal healthcare services in the region.

**Keywords:** Maternal health-seeking behavior, Health care facilities, Ibarapa Region, Nigeria

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**Chidinma Joy LASISI**  
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## **DEDICATION**

This thesis is dedicated to Jesus Christ my Saviour, Lord and Master, the pillar that holds my life, who gave me the wisdom and strength to carry out and complete this research.

## CERTIFICATION

I certify that this research work was carried out by Chidinma Joy Lasisi in the Department of Geography, University of Ibadan, under my supervision.

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## ACRONYMS AND ABBREVIATIONS

ARFH	-	Association for Reproductive and Family Health
ASRH	-	Adolescent Sexual and Reproductive Health
BD	-	Birth Defects
BEOC	-	Basic Essential Obstetric Care
CBEOC	-	Comprehensive Essential Obstetric Care
CHW	-	Community Health Worker
HCFs	-	Health Care Facilities
FGN	-	Federal Government of Nigeria
FGD	-	Focus Group Discussion
FMOH	-	Federal Ministry of Health
ICPD	-	International Conference on Population and Development
IDI	-	In- Depth Interview
IKS	-	Indigenous Knowledge Systems
IMNCH	-	Integrated Maternal Newborn and Child Health
IMCI	-	Integrated Management of Childhood Diseases
KAP	-	Knowledge Attitude and Practice
KII	-	Key Informant Interview
MCH	-	Maternal and Child Health
MDGs	-	Millennium Development Goals
MHS	-	Maternal Health Care Services
MM	-	Maternal Mortality
MMR	-	Maternal Mortality Ratio
MSS	-	Midwives Services Skill
NDHS	-	National Demographic Health Survey
NEEDS	-	National Economic Empowerment Development Strategies
NPHDA	-	National Primary Healthcare Development Agency
PHC	-	Primary Health Care
PTB	-	PreTerm At Birth
SBA	-	Skill Birth Attendant
SMI	-	Safe Motherhood Initiative

SOGON	-	Society for Gynaecology and Obstetrics of Nigeria
TBAs	-	Traditional Birth Attendants
UN	-	United Nations
UNICEF	-	United Nations International Children's Emergency Fund
UNFPA	-	United Nation Fund for Population Agency
WHO	-	World Health Organization
WCBA	-	Women of Child Bearing Age

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Maternal health has risen as a worldwide need in light of an incredible lacuna in the status of mother's health among the rich and the poor nations in contemporary times. From available evidence, maternal health alludes to the general well-being of women during the period of pregnancy, childbirth and postpartum period. In most prosperous countries, citizens, particularly women, enjoy adequate health care and conceiving an offspring is a pleasant and satisfying process whereas, in poor nations, childbirth is often associated with agony, sickness and even demise (WHO, 2008). Universally, expanding consideration given to women's health has increasingly focused on decreasing maternal mortality. Globally in 2005, the deplorability of failing to prevent avoidable loss of life which led to needless deaths of women brought about 536,000 maternal deaths. (WHO, 2007). Less economically developing countries represented 99 percent (533,000) of these deaths, which was higher than sub-Saharan Africa and Southern Asia representing 86 percent of maternal deaths. (United Nations, 2008). The United Nation Fund for Population Agency (UNFPA) report (2004) demonstrates that each moment of every year a woman dies from pregnancy related problems, abortion removal endeavours and giving birth. Albeit, many of the women who survive still experience the ill effects of sickness and disability associated with pregnancy and child birth. According to the evaluation by the Safe Motherhood Initiative (SMI) that 30 --50 sicknesses happen for maternal death (Safe Mother Initiative, 2003).

Enhancing women's health and decreasing maternal death have been the fundamental worry of a few worldwide summits and meetings. It started with the global conference on safe motherhood held in 1987 and proceeded through International Conference on Population and Development (ICPD) 1994 and again through ICPD+5 (five-year appraisal of the 1994 ICPD) and the Millennium Development Goals. The first conference ended with a resolution requiring a

decrease in maternal death by at any rate half by the year 2000. The ICPD set an objective of lessening maternal demise to one portion of the 1990 levels by 2000 and a further one-half decrease by 2015 (UNFPA, 2004). The millennium summit in 2000 required a 75 percent lessening by 2015 in the maternal mortality proportion from 1990 levels (UN, 2008). In any case, as the due date drew closer, these expectations are not met. The world was nowhere close to accomplishing this goal, and it was not by any means certain whether worldwide maternal mortality levels had dropped in the previous decade to any substantial level (Shiffman, 2003).

Africa as a continent has the most noteworthy weight of maternal death globally and sub-Saharan Africa is to a great extent accountable for the horrid maternal mortality figure for the area, adding roughly 98% of maternal demise (WHO, 2007). The lifetime threat of maternal mortality in the continent of sub-Saharan Africa is 1 of every 22 mothers contrasted with 1 in 6000 in more Economically Developed Countries (MEDCs), 1 of every 210 in Northern Africa, 1 of every 62 for Oceania, 1 in 120 for Asia, and 1 of every 290 for Latin America and the Caribbean (WHO, 2007).

Nigeria is the main contributor to maternal mortality figure in sub-Saharan Africa not just due to the massiveness of her populace yet additionally due to her maternal mortality proportion of 1 out of 100 is greater than the regional average (Hill et al., 2005). According to Federal Ministry of Health (2005), Nigeria with an expected 59,000 maternal deaths, she has roughly two percent of the total populace which adds right around 10 percent of the world's maternal mortality. Nigeria positioned second universally as the nation with the most astounding assessed figure of maternal deaths with 37,000 instances of maternal deaths. This pattern has demonstrated a confirmation of diminishment. A survey by Nigeria Demographic and Health Survey (2003), assessed that 80,000/100,000 live births while in 2008 NDHS, the figure was 545/100,000 live births. In spite of the reversal in the pattern, the ratio is as yet thought to be extraordinary, as shown by WHO (MM) estimation guide, 1997 (Adebowale, Fabamigbe and Bamgboye, 2010).

World Health Organisation (2007) has outlined three critical basic reasons for maternal deaths. In the principal case, there is an absence of availability and usage of fundamental obstetric services. There is an adverse relationship between maternal death proportions and women's health care utilisation. Kunst and Houweling (2001), stated that according to world health organization estimates, which recommended that 88 to 98 percent of all pregnancy-related demise is preventable if all women can have access to excellent reproductive health care services. Furthermore, the low societal position of women in developing nations can confine their entrance to financial resources and basic education; limit their capacity to decide, including choices identified with their health and nutrition. Moreover, a lot of physical work with horrible eating routine likewise adds to poor maternal health results. One of the riddles of the developing world is that women every now and again do a portion of the hardest physical work. Women in developing nations are not perceived as equivalent to men and they experience stigmatization and discrimination (Kristof, 2010).

As a result of this inferior social standing, women are forced to shoulder heavy house chores as well as tough physical labour. The labor women undertake are crucial to existence. Among these chores include fetching water, collecting fire wood, gathering food and in numerous cases, subsistence agriculture tasks are also involved. In poor family units, providing firewood for household's energy needs is the problem of women and girls to solve (Kristof, 2010). ). In rural areas this converts into gathering wood heaps of over 20 kilograms on daily basis. Sustainable energy policy and research knowledge network (SPARKNET, 2010). According to some scholars:

Extreme physical work might be a hindrance to health as it exasperates women's vitality equilibrium. For instance, high workload for women when compared with the low- calorie eating regimen in developing nations are frequently connected with ovarian concealment and poor reproductive functioning which makes women to be highly



vulnerable to deaths related to pregnancy issues. (Kramer and Garnett, 1999).

If extraordinary physical effort continues amid pregnancy, it might result into adverse reproductive outcomes. Also, anemia may arise when vitality use is high and micro-nutrients are rare. This may cause serious weakness, hindering the capacity of women to proceed with their imperative work. The number and spread of health care facilities (HFCs), nature and distribution of these HFCs are uneven with the vast majority of them situated in the town and cities while the hamlets and villages where the vast majority of the population lives are exceptionally underserved due to the high level of corruption of the government.

In order to diminish the occurrence of maternal deaths, it is required that women must utilize effectively maternal health care services which is a key factor among other factors that influence maternal health seeking behaviour. In addition, major influencing factors in maternal mortality are the type of pre-natal care available and the type of attendance at birth. These factors depend to a very significant extent on how much a country can afford to invest in its health services. United Nations (2008) stated that the number of pregnant women who get not less than one pre-birth care is roughly 74 percent in 2005, with 40 percent of deliveries occurred in health facilities (UNFPA, 2004); and skilled health workers assisted almost 61 percent of births in 2006 (UN, 2008). Clearly, this shows that the government responsibility regarding women's health care has not achieved the levels obligatory to have a solid positive impact on mortality proportions. Existing intervention programs have been observed to be ineffectual in preventing women's deaths. Decrees and guidelines in numerous nations occasionally hinder health care plans (in some areas specifically, such as, sexuality, education and access of young people to reproductive health facts and services).

## **1.2 Statement of the Problem**

The increasing rate of maternal deaths in the developing world has been recognized as a serious public health concern during the past decade. This high rate of maternal mortality has been attributed to direct and indirect obstetric complications. The direct obstetric origins are linked to difficulties of pregnancy, labour or in 42-day after birth period, unsafe abortion, inappropriate treatment or involvements resulting in haemorrhage, sepsis, eclampsia and obstructed labour. The indirect obstetric causes are the problems ensuing from pre-existing disease or that developed during pregnancy and that is aggravated by pregnancy resulting in anemia, malaria, cardiovascular disease, hepatitis, diabetes and many more. Poor utilisation of health care facilities during delivery by pregnant women is still the main basis of women and childhood illnesses and deaths in most parts of the country. Reduced access to women's health care has major effects on all aspects of women's lives, plus their ability to sustain their own health and wellness, and their capability to take good care for their families. These raise the questions of why the utilisation of women's health services and health seeking behaviour is uneven and low despite the availability of modern health services and obvious low health status of women especially in low income countries.

Previous studies on facility utilisation and maternal health-seeking behaviour of women of child bearing age have focused on effect of cost of services, accessibility and availability on the utilisation of healthcare by women of childbearing age (World Bank, 1994; Gertler, Parker, Feifer and Ashly 1993; Singh, Rai and Singh 2012; Idris, Sambo and Ibrahim 2013). These studies gave insights into how the usage of maternal healthcare services by women of childbearing age is determined by cost of services, accessibility and availability. These studies also examined how expenses of transport, drugs, foodstuff, or accommodation for the pregnant woman as well as for family members who help take care of the woman in the hospital can influence the utilisation of maternal healthcare services.

Other studies (Akin and Munevver, 1996; Addai, 2000; Gyimah, Takyi and Addai 2006; Amin, Shah and Beckers 2010; Chimankar and Sahoo, 2011; Singh, Kumar and Pranjali 2014; Rai, Singh and Singh 2012; Ogunlesi and Ogunlesi, 2012) examined the influence of socio-economic and demographic factors such as economic position, training, order of births and child spacing as it affects the utilisation of maternal healthcare services. These studies emphasised how economic status of household, education of women and religion among others influenced the utilisation of maternal healthcare services. Studies mostly in Africa have also emphasized the effect of cultural background of women on the utilisation of maternal health care services (Adetunji, 1991; Addai, 2000). These studies showed that the use of women's health services is determined not simply through the presence of physical disease and maternal healthcare facilities but similarly by the cultural perception of sickness. They showed that the perception of illness or maternal complications strongly impact the utilisation of women's health care services.

Other studies using the health behaviour model to understand the health-seeking behaviour of women of childbearing age on healthcare services utilisation (Subedi, 1989; Amin *et al.*, 2010) have shown the effects of three dominant factors such as: predisposing factors (which include age, sex, marital status, family size, social status, education); enabling factors (family income, health insurance, service availability and health level symptoms or perceived sickness) and necessity to use services available to understand the utilisation of maternal healthcare services. The influence of perception of women of childbearing age on the utilisation of maternal healthcare services has also been studied (Aniebue and Aniebue, 2010; Ajaegbu, 2013; Akanbiemu, Olumide, Fagbamigbe and Adebowale 2013). These studies examined how the perception of service quality, fees or charges among others could affect the utilisation of women's healthcare services.

In like manner, other studies on knowledge, attitude and practices (KAP) of child bearing women on health care utilisation (Ibrahim, Borgy and Mohammed, 2014; Almalik and Mosleh 2017; Gross, Alba, Glass, Shellenberg and Obrist, 2012; Arga, Nguyen, Nguyen, Nguyen and Nguyen, 2016 and Al-Ateeq and Al-Rusaiees, 2015)

have shown the underlying factors that influence women's access to and the use of appropriate health services based on their knowledge, attitude and practice (behaviour) during pregnancy and knowledge about and practices of exclusive breastfeeding. Also the role of education during antenatal to provide advice, knowledge, reassurance and support to address and treat the minor problems of pregnancy and the provision of effective screening during pregnancy. The effect of knowledge, attitude and practices among ante-natal care facilities usage by women of child bearing age has also been studied (Alam, Quesh, Adil and Ali, 2005; Shielkh and Kwaak 2015). These studies identified nomadic health practices and healthcare services as the main factors influencing the utilisation of maternal healthcare services. Nomadic health practices are influenced by the mobile lifestyle of nomads, their low level of education and knowledge, gender, norms, beliefs, values, attitudes and their geographical location.

The preceding discussions show clearly that it is a fact that many scholars have investigated maternal healthcare services from different perspectives. Some focused on individual factors of facility location, socio-economic factors and cultural influences in the utilisation of women's health services. Despite the burgeoning literature on the utilisation of healthcare services by women of childbearing age, studies on the nexus between the dynamics of spatial disparity and variation in the utilisation of women's healthcare services in addition to maternal health-seeking behavior, mostly in rural areas have received little or no attention in literature.

The Ibarapa region was selected as the study area for a number of reasons, major among which is the dearth of studies relating to maternal health seeking behaviour among women of child bearing age in the area. Apart from studies carried out by Faniran, Filani, Akintola and Acho (1981), Gbadegesin and Olorunfemi (2007) which focused on access to water while Samuel (2016), looked at the locational patterns of Information Communication Technology (ICT) services and the impact on access and utilisation of ICT services. There is scantiness of studies on spatial variation in maternal health seeking behaviour in the region. Ibarapa region is mainly rural, in which for so many decades has suffered from political neglect and

characterized with dispersed settlement and low population density which is usual of most rural areas in Nigeria. These factors contribute significantly to the problem of inadequate provision of and access to basic social amenities such as health care facilities, good roads, portable water, ICT facilities and monetary institutions. Such a study on maternal health care is required to ascertain factors responsible for the spatial variation in maternal health seeking behaviour of child bearing age women and the need to implement policies that will address the observed problem of unequal provision and access to maternal healthcare facilities and services.

Given the foregoing, since the region is typical of many rural areas in Nigeria, the findings of this study can be applicable in addressing peculiar problems in other rural areas in the country. Therefore, this study attempts to examine the spatial variation in maternal health-seeking behavior in Ibarapa Region, Oyo State.

### **1.3 Aim and Objectives of the study**

The aim of this study is to analyse the variation in maternal health-seeking behaviour of women of child bearing age (15-45years) in Ibarapa Region of Oyo State. The specific objectives are to:

1. Analyse the spatial distribution of all the available health care facilities (antenatal, delivery and postnatal) in the study area.
2. Analyse the variations in the utilisation of orthodox and non-orthodox health care services by women of child bearing age (15-49years).
3. Analyse the factors (socio-economic, spatial, religious and cultural) that influence maternal health-seeking behaviour and utilisation among women of child bearing age.
4. Examine the influence of knowledge, attitude and practices (KAP) of child bearing women (15-49years) on the utilisation of maternal health care services.

## 5. Identify the barriers to the utilisation of maternal health care services

### **1.4 Hypotheses Tested**

The hypotheses tested are:

- (i) The distribution of health care facilities (antenatal, delivery and postnatal) in the study area is random.
- (ii) There is a significant variation in the utilisation of maternal health care services (orthodox and non-orthodox) among the women of child bearing age.
- (iii) The level of utilisation of maternal health services is significantly influenced by socio-economic, spatial, religious and cultural factors.
- (iv) Cost of service, facility accessibility, husband's acceptance of service, distance, quality of service, belief system, and attitude of healthcare provider and previous history of complications are significant barriers to the utilisation of maternal health care services.

### **1.5 Significance of the Study**

Much emphasis has been placed on the health status of a defined population of women which led the United Nations General Assembly's (2000) to articulate eight specific Millennium Development Goals (MDGs). The conference addressed population issues and programmes which focused on controlling population growth, improving women's health and reducing death due to pregnancy related causes.

The International Conference on Population and Development (ICPD) Programme of Action (1994) has an explicit objective to boost women's health and safe motherhood; to advance a speedy and considerable decrease in maternal morbidity and mortality and lessen variations witnessed between developing and developed countries and within countries. As a strong background and commitment to women's health and condition; to lessen significantly the number of deaths and morbidity from perilous abortion and to promote the health and nutritional situation of women particularly of nursing and pregnant women.

This study, would add to the existing body of knowledge on spatial variation in maternal health seeking behavior of women in Ibarapa Region of Oyo State. The types, numbers, spatial distribution of maternal health care facilities and pattern of utilisation, based on the availability and accessibility of the health-care services would be found useful for further research.

The findings would intimate the government and local government areas on the adequacy or otherwise of the provision of these facilities for women. This will further reinforce their efforts at the even distribution of the dividends of democracy to the people and the reduction of the high mortality and morbidity rates of child-bearing mothers in particular.

### **1.6 Maternal Health Issues in Nigeria**

The 2006 statistics evaluate that there were around sixty five million females in Nigeria, out of which thirty million were of conceptive age (15-49 years). Consistently, around six million women become pregnant; five million of these pregnancies result in labor (WHO, UNICEF, UNFPA, 2007). Accessible information demonstrates that 59,000 ladies pass away yearly as a result of complexities in labor (WHO, 2007). Mortality extent is around 800-1,500/100,000 live births (NDHS, 2003). One of each 20 Nigerian women kicks the bucket of pregnancy/delivery related causes (Advocacy Brief, 2007). This can be stood out from 1 of each 61 for each developing country, and 1 out of 29,800 for Sweden and Finland. In this way for all human improvement markers, maternal mortality extents exhibit the best uniqueness among high income countries and low income countries. These deaths are for the most part preventable. Likewise of concern is that yearly, around 1,080,000 – 1,620,000 Nigerian women and young ladies will endure disabilities caused by hitches in the midst of pregnancy and labor (Hill, AbouZhar and Wardlaw 2001).

For every woman that bites the dust, 20-30 more endure long and short term disabilities, for instance, chronic anemia, maternal exhaustion or physical shortcoming, Vesico-Vaginal or Recto-Vaginal Fistulae (VVF), Stress Incontinence, ceaseless pelvic agony, Pelvic Inflammatory Disease (PID), Infertility, Ectopic Pregnancy, and Emotional depression. The UNFPA estimates that 2 million women endure vesico vaginal fistulae around the world, 40% of these (800,000) women are in Nigeria, principally as a result of extended obstructed labor that end in still birth or neonatal demise (UNFPA, 2003). Child survival is also impacted and additionally the chance of a child without his or her mother is altogether decreased. In Nigeria, 340,000 infant youngsters bite the dust yearly in the midst of delivery and not long after delivery especially if the mother passes on in labor. These deaths are not segregated from poor maternal health services in the country and could be dodged through the provision of quality and effective maternal and child health services.

In the year 2000, Nigeria and different partners from the United Nations settled on various Millenium Development Goals (MDGs) to improve the prosperity of the overall public in their countries in the 21st century. Two of the wellbeing related goals concern diminishing deaths among children underneath 5years old by two-third (MDG 4 i.e. reducing from 230-77 for each 100,000 life births) and lessening maternal deaths by seventy five percent (MDG5) by the year 2015, when differentiated and the 1990 insights (from 1000/100,000 live births to 250). Mid-way to 2015, Nigeria still records a genuinely astonishing women' demise rate compared with developed countries. Though countless deaths are avoidable, the coverage and quality of wellbeing administrations in Nigeria continue falling women and youngsters.

### **1.7 Maternal Health Care Services and Policies in Nigeria**

Since 1946, the Nigerian government has been involved in the provision of health services. In any case, much advance as it relates to wellbeing as it identifies with the provincial regions where an extensive segment of the masses lives was made in



the midst of the post-independence period. The rural regions in Nigeria occupy over 60% of the Nigerian masses (Olujimi, 2003a). In 1975, the Nigerian government started utilising a Primary Health Care (PHC) approach to manage the provision of national social insurance. PHC incorporates principal treatment, Maternal and Child wellbeing (MCH) and family planning administrations, the aversion and control of irresistible illnesses and the provision of fundamental medications and supplies. Regardless of the way that MCH was a major bit of PHC, high maternal deaths in Nigeria initially got universal consideration through the research of Rosenfield and Maine (1965). This gave the impulsion to convening an international safe motherhood conference in Nairobi, Kenya in 1987 which propelled a worldwide safe motherhood development. Nigeria was centered on achieving the objective of reducing in the amount of maternal deaths extensively by the year 2000 as concurred at the gathering. A safe motherhood committee was set up by the government Ministry of Health and the Society for Gynecology and Obstetrics of Nigeria (SOGON) expanded undertakings to progress maternal mortality diminish. Similarly, Columbia University set up the Prevention of Maternal Mortality Network, coordinating formative research. In any case, these exercises were not scaled up and practices stagnated under the military regime. In 1988, the Nigerian government drafted the National Health Policy and Strategy to accomplish wellbeing for all Nigerians and set up PHC as a fundamental piece of the national wellbeing structure and a requirement for national improvement. The arrangement stressed the objective of engaging all Nigerians to achieve socially and fiscally profitable lives. According to the plan, wellbeing is essential piece of social value and national security. In 1992, the importance of PHC system was strengthened by the establishment of the National Primary Health Care Development Agency. The Agency hoped to execute the National Health Policy by reconsidering existing wellbeing courses of action where indispensable, making a translation of methodologies into handy methodology, and giving particular help to the administration of the PHC structure. Before this, distinctive policies relating to wellbeing were arranged. For example, in 1988, in light of the clear threatening money related consequences of snappy quick populace development, the administration got the National Policy on Population for Development, Unity, Progress and Self-Reliance (the National Policy on Population). This strategy gave

the structure inside which family planning services are given. It is foreseen upon the decision that couples and individuals have the benefit to choose the number and spacing of their youngsters. Decline of maternal demise was not explicitly on the plan. Regardless, the condition modified after advance to democratic rule system in 1999, and the pressure of the 2000 MDGs. With the formation of National economic empowerment and development strategy (NEEDS), which was a poverty easing program which has developed into a national structure for social change in which maternal mortality was unequivocally recorded as an objective (Nigerian Central Bank, 2004).

In like manner, developing worry among the civil society about the unfortunate level of maternal mortality in Nigeria has driven undertakings to improve maternal and child wellbeing. For example, the Association for Reproductive and Family Health (ARFH), Planned Parenthood Federation of Nigeria and Pathfinder International Nigeria have worked tirelessly throughout the previous ten years to grow conceptive wellbeing administrations for Nigerians. The Campaign for Unwanted Pregnancy has made a touchy issue of safe fetus removal evacuation a subject of open talk and to improve post-abortion birth care in the nation (Oye-Adeniran, Long and Adewole, 2004). The FMOH adjusted the WHO African provincial arrangement of conceptive wellbeing and the procedure set apart with the starting of the Population Development Agenda. All sections of conceptive and sexual wellbeing administrations together with MCH, Integrated Management of Childhood Illnesses (IMCI), Safe Motherhood, Adolescent sexual and regenerative wellbeing (ASRH), Post fetus removal abortion care and administration of untimely birth complication were joined in the tenets and standing solicitations for basic health care which was made post-International conference on population and development (ICPD). The Federal Ministry of Health conveyed a national reproductive health policy in 2002 with particular maternal mortality decrease (MMR) goals (FMOH, 2002).

A revision of the National Policy on Population for Sustainable Development in 2004 doubtlessly called for diminishing of MMR to 75 percent by the year 2015(FGN, 2004). The Ministry additionally settled a multi-sectoral national Commission on Safe Motherhood. In 2005, the administration with help by the World Health Organization got a manual for accomplish the maternal and child health MDGs (WHO, 2005). The MDG has been a strong basis behind feeling of obligation with respect to maternal mortality diminishment in Nigeria.

The Nigerian Road Map is the branch of the work by Regional Reproductive Health Task Force as a group with all accomplices in October 2003 in Dakar – Senegal and February 2004 in Harare Zimbabwe. The Road Map is to give a motivation for planned organizations for enhanced interests in maternal and infant wellbeing at institutional and program levels. The reason for existing is to accentuate on the accessibility of crisis obstetric and neonatal care, gifted participation amid pregnancy, labor and family planning and in addition giving the gear and supplies that will spare the lives of women and infants at all levels. The use will be in 2 times of 5 years each; Phase 1-2005 - 2009, Phase 2 – 2010 - 2014 and last revealing year will be 2015. The Road Map is required to influence on the wellbeing and survival of mothers and their newborn children as a technique for achieving the MDGs. It is also expected that would develop the ICPD Program of Action, the Cairo +5 and the UN Millenium Summit assentions. Plus, the Integrated maternal, Newborn and Child Health (IMNCH) technique 2007 was collected to quick track a program expected to restore basic essential human services in each local government to decrease maternal and under-5 mortality.

The Ministry of Health has additionally set up measures to develop access to Emergency Contraceptives and present day procedures, for instance, Norplant, female condom et cetera. Likewise, the National Primary Healthcare Development Agency (NPHDA), under the 2009 Appropriation act was endowed with setting up the Midwives Service Scheme (MSS), a public sector collaborative activity, expected to get ready birthing assistants, including as of late qualified, jobless and retired midwives for development to selected PHC facilities in rural communities.

The aim was to facilitate an increase in the coverage of Skilled Birth Attendance (SBA) to reduce maternal, newborn and child mortality. The MSS faces five key challenges namely: implementation of memorandum of understanding, availability of qualified midwives, retention of midwives, capacity building of midwives and sustenance of linkages.

From the foregoing discussions on maternal health care services in Nigeria, one would expect a comprehensive health system that would impact women's reproductive health and bring the maternal mortality to the barest minimum level. Despite the wide range of maternal health services available, the maternal mortality in Nigeria continues to increase. This is not unconnected to the weak management and implementation of health policies and service compounded with the socio-economic and cultural factors. For instance, in a 2003 report of comprehensive survey of health facilities in 12 randomly selected states in Nigeria, only 4.2 and 1.2% public facilities met the Basic Essential Obstetric Care(BEOC) and Comprehensive Essential Obstetric Care(CEOC) respectively(Fatusi and Ijadunola, 2003). Only Lagos state meets the criteria of 4 BEOC facilities per 500,000 populations, and 7 states met the standard of 1 CEOC per 500,000 population. For the few that met these criteria, the distribution of Essential Obstetric Care (EOC) facilities was uneven with most of them located in the urban areas while the rural areas where most of the population reside are highly underserved and long been neglected.

Similarly, only 13.9% of the estimated annual births for the 12 states took place in health facilities and a total of 35,790 obstetric complications were recorded across facilities and states over a 12 month period of the study. Haemorrhage and prolonged labour were the commonest. These findings reflect poor provision of maternal health services and low utilization of available ones. Furthermore, it is of concern because it gives a picture of inadequate access to reproductive health services including family planning by the population that deserve it. Although increasing access to use of family planning (which is a contentious issue even among the educated population) is not one of the MDGs goals, analysis however,

has shown that it can make contribution to achieving some of the MDG goals especially the ones relating to improvement of maternal health and reduction in infant mortality.

Nigeria has one of the lowest contraceptive use rates (8% i.e. about 1 in 12 women of reproductive age). The potential contribution of family planning to reduce maternal mortality is not fully realized by the average Nigerian, in particular the very poor, disadvantaged and uneducated. The most obvious demand problem was the resistance against small family idea which resulted in very limited demand for contraception as a way of ending child bearing. The resistance of males against male condom shifted emphasis to the targeting of women within the clinic context. The associated supply problems include narrow range of methods that are available within a weak and urban oriented family planning system. Unmet needs for family planning is estimated at 18%.

Many pregnancies are high risk pregnancies: many women have 6 children on the average; about one in four mothers in Nigeria is a girl of 15- 19 years. One in seven (15%) pregnancies yearly in Nigeria is unintended (NDHS, 2003) and one in six (17%) of married women who want to space or limit the number of births have no access to Family Planning/Child Birth Spacing information and services. High risk pregnancies and abortion are pre-requisite to maternal mortality. Therefore, factors that influence the incidence of pregnancy will also influence the level of maternal mortality. Part of the response to the limited impact of the safe motherhood initiative was the development of the national programme for the prevention of maternal morbidity aimed at expanding and strengthening advocacy projects for safe motherhood. The programme was aimed at creating a better access to antenatal care facilities for the 27 million women of reproductive age of Nigeria (Okonkwo, 2002).

## **1.8 Scope of the Study**

This study examined the spatial variation in maternal health-seeking behaviour in Ibarapa region, Oyo State. This covered all the seven major towns and villages of Ibarapa region. This included the three local government areas and the selected wards obtainable from the thirty (30) political wards in the study area. Both orthodox and non-orthodox maternal health care facilities in the political wards were involved. Pregnant women and women of child bearing age (15-49) years; with at least one live birth born five years preceding survey (2008-2013) were eligible. Also, the staff of maternal health care centres (doctors, nurses, midwives) was interviewed to elicit information on health care facilities and maternal health seeking behaviour.

## **1.9 Operational Definition of Terms**

For the sake of clarity, the keywords of this study have been given operational definitions as follows:

**Maternal Health:** This is expressed as the physical health of a woman relative to her pregnancy. Maternal health entails pre-natal, delivery and pos-tnatal care of the mother and of the child up to the age of five years.

**Reproductive Health:** According to the United Nations Concise Report on Reproductive Rights and Reproductive Health affirm that reproductive health is a state of wide-ranging physical, mental and social happiness and not merely the absence of ailment or illness, in all issues relating to the reproductive system and to its purposes and procedures (United Nations, 1996).

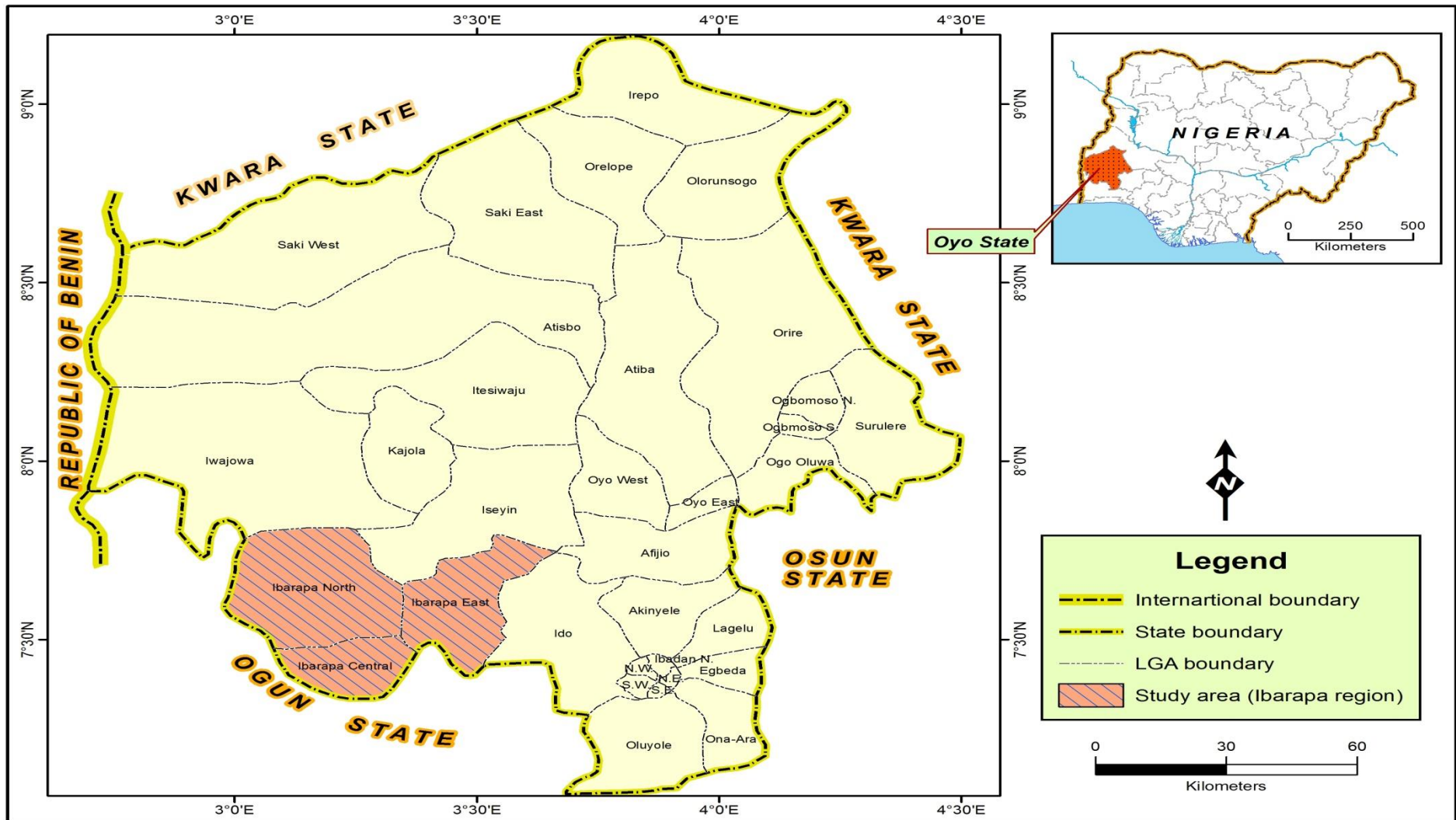
**Maternal Health Care facility:** This is defined as any location where maternal health is provided. It ranges from maternity centres, general hospitals, teaching hospitals, private hospitals, faith based hospitals and traditional delivery homes.

**Maternal Health care services:** This is defined as the provision of access and oversight to the full range of all eligible women. These services include Antenatal care, delivery and postnatal care

**Health-seeking behaviour:** This is defined as social determinants of health that impedes or promotes treatment. This concept is a significant vehicle for exploring and understanding patient delay and swift action across a variety of health conditions.

### **1.10 Study Area**

The study was carried out in Ibarapa region of Oyo State, located in the southwestern part of Nigeria. The area is located approximately between latitude  $7^{\circ} 19' 20''$  to  $7^{\circ} 48' 10''$  North of the equator and between longitude  $2^{\circ} 52' 31''$  to  $4^{\circ} 03' 52''$  East of the Greenwich meridian (see Fig 1.1). Ibarapa region is divided into three local government areas. These are Ibarapa East, Ibarapa Central and Ibarapa North. There are ten (10) wards in each of the local government areas. Thus, making thirty (30) wards altogether in the study area. The seven major towns in this region are Lanlate, Eruwa, Igboora, Idere, Ayete, Tapa and Igangan. Ibarapa region has a female population of 158,043 (NPC, 2006). About 46% of the total female population represents women of child bearing age (75,023).



**Figure 1.1: The Study Area**

Source: Ministry of Urban and Regional Planning, Secretariat, Ibadan and Author's Field Report, 2015



The people are Yorubas and they speak the Yoruba language, but other ethnic groups and nationalities could be found trading in one article or the other. These are Hausas, Fulanis, Igbos, Togolese, and Sabes. The region has multi-religious leanings with Muslims and Christians. Traditional religion also exists amicably alongside others without losing the cultural supremacy of the land. The major occupation of the region is farming due to abundant fertile farm land. This is practiced at subsistence level. The major farm crops are yam, cassava, mangoes, cashew, palm kernel, corn, millet, melon, tomatoes, and okro among others. The people are also noted for historical traditional works such as art and craft, traditional cloth dyeing, weaving, blacksmithing, hunting, soap making and so on. Table 1.1 shows clearly the classifications of maternal health care facilities in Ibarapa region, while Figure 1.2 shows in detail maternal health care facilities distribution in Ibarapa region.

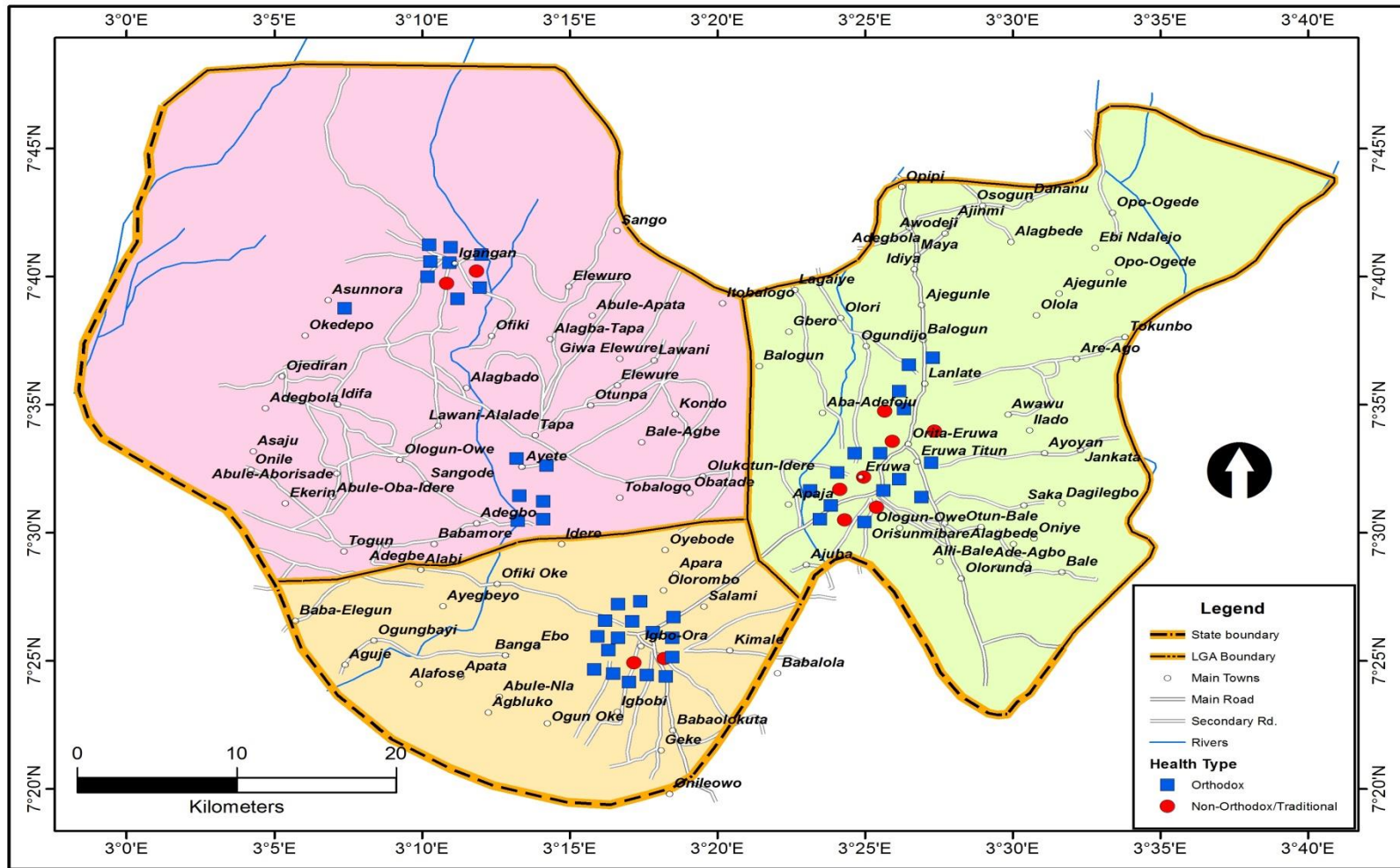
In Ibarapa North Local Government Area 12 (82%) of the maternal health care facilities are classified as primary Health Care Facilities (HFCs) which includes some non-orthodox health care

**Table 1.1 MATERNAL HEALTH CARE FACILITIES IN IBARAPA REGION**

S/N	LGA	NAMES OF HOSPITAL	AVERAGE NUMBER OF DELIVERIES PER MONTH		
1	IBARAPA NORTH	*Maternity centre oke ola, Igangan.	25		
		Six bed primary health centre isale akao, Igangan	18		
		Millennium development goals health centre idi-ope, Igangan.	5		
		Maternity centre asunara village, Igangan.	10		
		Maternity centre Idiyen village, Igangan.	10		
		Maternity centre akoya village, Igangan.	12		
		Maternity centre Abidioki village, Igangan.	8		
		*Victory foundation private hospital Akoya road, Igangan.	12		
		Adaba private hospital Igangan.	20		
		*Tapa Maternity centre, Tapa.	15		
		MDG health centre, Idi-osa, Tapa.	12		
		Ayete maternity centre, Ayete.	18		
		*Oyo state Govt General hospital, Ayete.	8		
		*Maternity centre Alabi Village, Ayete.	8		
		Maternity centre Alagbaa village, Ayete.	12		
		*Iya abiye delivery home, Isale akao, Igangan.	16		
		*Iya odua delivery home, olowu, Igangan.	12		
2	IBARAPA CENTRAL	*Igboora comprehensive hospital, Igboora	19		
		*Maternity centre, Igbole, Igboora.	16		
		Maternity centre, sagaun, Igboora.	14		
		Maternity centre isale oba, Igboora.	14		
		Maternity centre oko odo, Igboora.	18		
		*Maternity centre Ayeda, Idere.	20		
		Six beds hospital, Idere.	8		
		Merk mercy hospital, igbole, Igboora.	20		
		*Olugbon clinic, Igboora.	36		
		Wesley Memorial maternity home, Towobowo, Igboora.	12		
		Aanu Oluwa clinic, isale -penbo, Igboora.	14		
		Adua clinic, Olorunsogo, Igboora.	14		
		*Redeem church maternity home, Imeleke, Igboora	8		
		*Aanu oluwapo hospital, Idere.	12		
		Abola maternity centre, alagba road	10		
		Origi maternity centre	14		
		Iya Abiye Oke-odo, Igboora	5		
		*Eegunbambi Okanlawon Traditional Home, Abaara Compound, Pako, Igboora.	10		
		3	IBARAPA EAST	Kerubim and Seraphim Church, Isale, Penbo, Igboora.	8
				*Oyo state Govt general hospital Eruwa.	24
Maternity hospital Anko, Eruwa.	18				
Maternity hospital oke-ola, Eruwa	18				
Maternity hospital oke-oba, Eruwa.	16				
Maternity hospital New eruwa, Eruwa.	14				
Maternity hospital, Temidire, Eruwa.	20				
*Maternity hospital, okolo, Eruwa.	10				
Maternity hospital ijasha village, Eruwa.	12				
*Oyo state govt general hospital Lanlate.	18				
*Maternity hospital oke-imale, Lanlate.	28				
Maternity hospital Agaga estate, Lanlate.	16				
Maternity hospital Maya, Lanlate.	22				
*Awojobi private clinic, Eruwa.	46				
Oluwatooki Memorial private clinic, Eruwa.	14				
Rehoboat nursing and maternity private clinic, Eruwa.	16				
*Agbomola Traditional Home Atiwolefa Compound, Aborerin, Eruwa.	5				
Deborah Traditional Home Elewunla Compound Aborerjin, Eruwa.	8				
Rafat Traditional Home New Eruwa, Olowopooku, Eruwa.	8				
Durowoo Traditional Home Oke-Oba, Eruwa.	9				
*Akaso Traditional Home Agasha Area, Lanlate.	5				
Ayinla, Ogbegi Traditional Home, New Eruwa, Eruwa.	5				
Baba Ile Abaara, Eruwa.	5				

Source: Department of Health Ibarapa Region, 2012.

\* (Randomly selected Maternity health center)



**Figure 1.2 Maternal Health Care Facilities Distribution in Ibarapa Region of Oyo State**  
**Source: Ministry of Urban and Regional Planning, Secretariat, Ibadan and Author's Field Report, 2015**

centres. Primary health care centers include Maternity centre Oke Ola Igangan, maternity centre Asunara village, Igangan, Tapa maternity centre, Tapa, MDG health centre, Idi-osa Tapa, Ayete maternity centre, Ayete, Maternity centre Alabi village, amongst others. Iya abiye delivery home, Isale akao, Igangan and Iya odua delivery home, Olowu, Igangan represents non-orthodox health care centres. Whereas 3 (18%) constitutes secondary (HCFs), which are Oyo state government general hospital, Ayete, victory foundation private hospital Akoya road, Igangan and Adaba private hospital Igangan and This is the only LGA in the study area that does not have a tertiary health care facility.

In Ibarapa Central LGA, 14 (74%) constitute primary (HCFs), which includes faith based and non-orthodox health care centres. These are Maternity centre, Igbole, Igboora, maternity centre, Isale Oba Igboora, maternity centre Ayeda, Idere, Six beds hospital, Idere, Adua clinic, Olorunsogo, Igboora among others. Also the Redeem church maternity home, Imeleke, Igboora and Kerubim and Seraphim church, Isale Pembo, Igboora represent faith based health care centres while Iya abiye Oke-odo, Igboora and Egunbambi Okanlawon Traditional home, Abara compound, Pako, Igoora. 4 (21%) are secondary in nature. These are Igboora comprehensive hospital, Igboora, Merk mercy hospital, Igbole, Igboora, Olugbon clinic, Igboora and Aanu oluwa clinic, Isale-pembo, Igboora. Only 1(5%) represents the tertiary health care facility which is Aanu oluwapo hospital, Idere.

On the other hand, in Ibarapa East LGA, 17 (77%) which is the highest in the study area represent primary HCFs, which includes faith based and non-orthodox health care centres. These are Maternity hospital Anko, Eruwa, maternity hospital, Temidire, Eruwa, maternity hospital oke-imale, Lanlate, maternity hospital maya, Lanlate amongst others. Also Agbomola traditional home atiwolefa compound, Aborerin Eruwa, Deborah Traditional home elewunla compound Aborejin, Eruwa, Akaso Traditional home, Agasha area, Lanlate amongst others. 4 (18%) constitute secondary (HCFs) which are Oyo state government general hospital, Eruwa, Oyo state government general hospital Lanlate, Oluwatooki memorial private clinic, Eruwa and Rehoboat nursing and maternity private clinic, Eruwa while only 1 (5%) Awojobi private clinic, Eruwa represents tertiary health care facilities.

Generally, in the study area, the primary maternal health care centres are usually under-staffed with dilapidated buildings usually with no toilets. The region is predominantly rural that is noted for the phenomenon of twinning. The Yorubas of Ibarapa region have the highest twinning rate in the world (over 40 per1000 live birth) according to Nylander, (1969).

### **1.11 Organization of Chapters**

Apart from this introductory chapter, the thesis is divided into six chapters. Chapter two presents the conceptual/theoretical framework and a review of relevant literature, while chapter three focuses on the research methodology and design. The spatial pattern of maternal health care centres is examined in chapter four.

Chapter five covers the availability and accessibility of health care centres. Chapter six analyses the knowledge, attitude and practice in the utilisation of health care services. Chapter seven presents the summary of the findings, the implications of these findings for developments in health seeking behaviour and spatial variation in the utilisation of womn's health services in Nigeria, policy implications of the study and areas for further research.

## **CHAPTER TWO**

### **CONCEPTUAL AND THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

This chapter presents the conceptual/theoretical framework for this study. In addition, a review of relevant literature is undertaken.

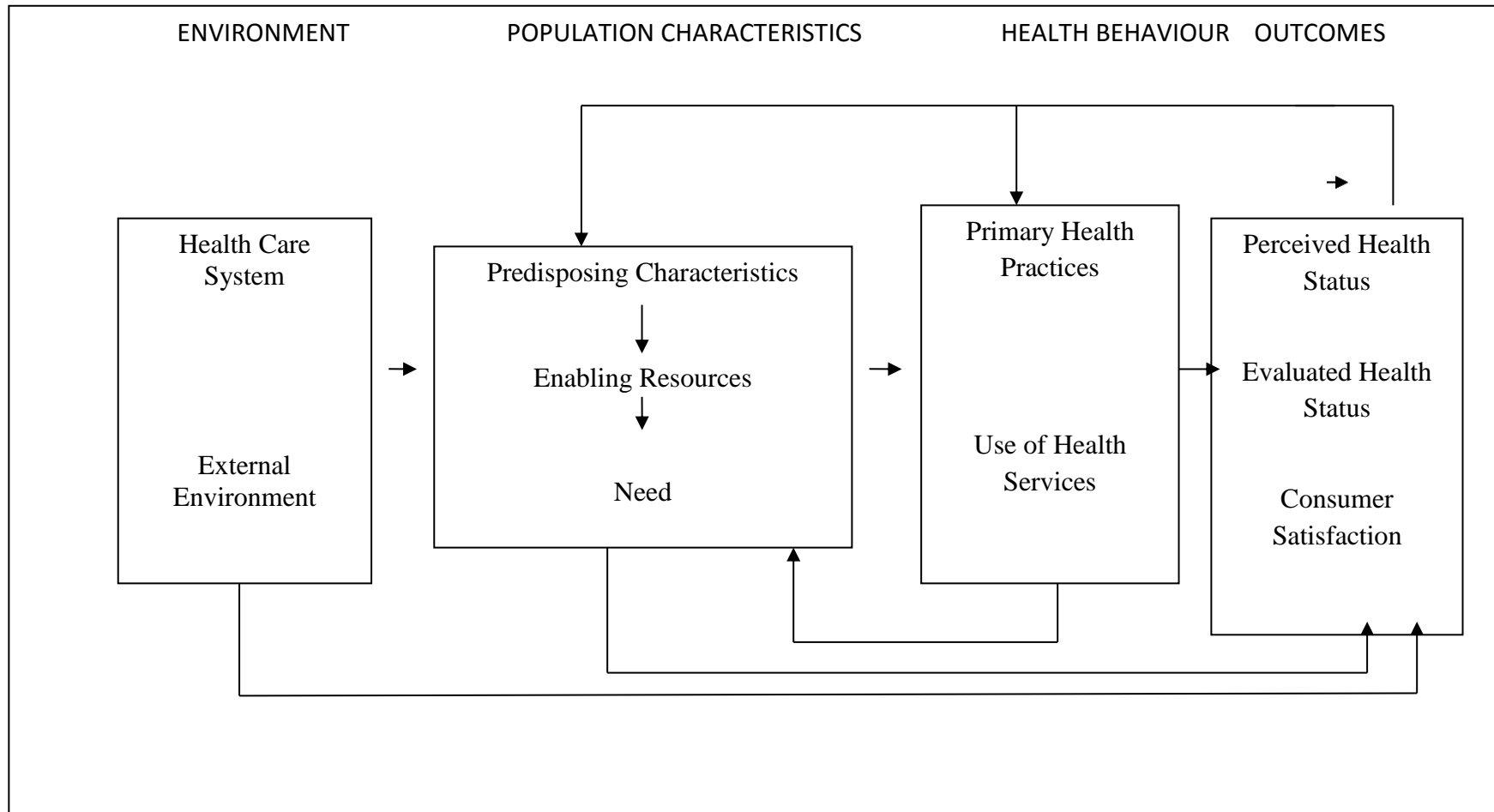
#### **2.1 Conceptual and Theoretical Framework**

The Andersen's Model (Behavioural Model of health services use) and the Attitudes-Social Influence-Self-Efficacy (ASE) Model are the relevant theories/concepts adopted for this study.

##### **2.1.1 Andersen's Model (Behavioural Model of Health Services Use)**

The body of existing knowledge on economic and socio-cultural hindrances which deter women from seeking health care services related to pregnancy in less economically developing nations has been robust. Andersen (1995) has built up a behavioral model that depicts the different effects of social, economic and cultural dynamics on health care services utilization and, therefore, on health status (Figure 2.1).

Two critical fundamental components which are portrayed in this model can affect health care behaviour and consequently impact the health results, particularly the environment and population characteristics of women. The major environmental factors that influence maternal health are classified as healthcare system and external environment. The conceptualization of health care system encompasses national health strategy, resources and organization. On the other hand, external environment has to do with the physical, political and economic segments of human society. The two components are vital contribution for 'demographical attributes'. Andersen's behavioral model of health services use proposes that individual health practices and people's utilization of health services are crucial elements of certain classes of variables. In an attempt to explain the three fundamental elements, Anderson (1995) posits as thus:



**Figure 2.1: The Behavioural Model of Health Services Use**  
 Source: Andersen, (1995).

(i) **Predisposing characteristics:** These are factors that are observed before the ill health and requirement for care, for example, demographic factors, social structures and health beliefs. Demographic factors for example, age and gender represents the natural probability that individuals will require health services. Social structure is measured by a wide cluster of components that decide the status of a person in the community, his or her capacity to adapt to and deplete the resources to manage these issues, and how sound and unhealthy the physical environment is likely going to be (education, occupation, ethnicity, and so on). Health beliefs are attitudes, values and knowledge that individuals have about health and health care services that may impact their subsequent perception of need and utilization of these services.

(ii) **Enabling Resources:** These are resources which give patients the access to make utilization of the services. Communities and individual empowering resources must be accessible to use at whenever required. For instance, health staff and facilities must be accessible and individuals must have the methods and know-how to get to those services and make utilization of them. Income, medical coverage, a regular source of care, and travel and holding up/waiting times are a portion of the measures that can be critical in this regard.

(iii) **Need:** This refers to health status, recognized by the individual or assessed by the health providers. It is the means by which individuals see their own general health and useful state, and how they encounter the side effects of ailment, pain and stresses over their health and regardless of whether they judge their problems to be of adequate significance and extent to look for professional health care. Individual health services, for example, eating regimen, exercise and self care connects with the utilization of formal health care services to impact health outcomes. The measures of health services' utilization in this model incorporate those representing type, site, purpose and coordinated services got in a scene of sickness (Anderson, 1995).

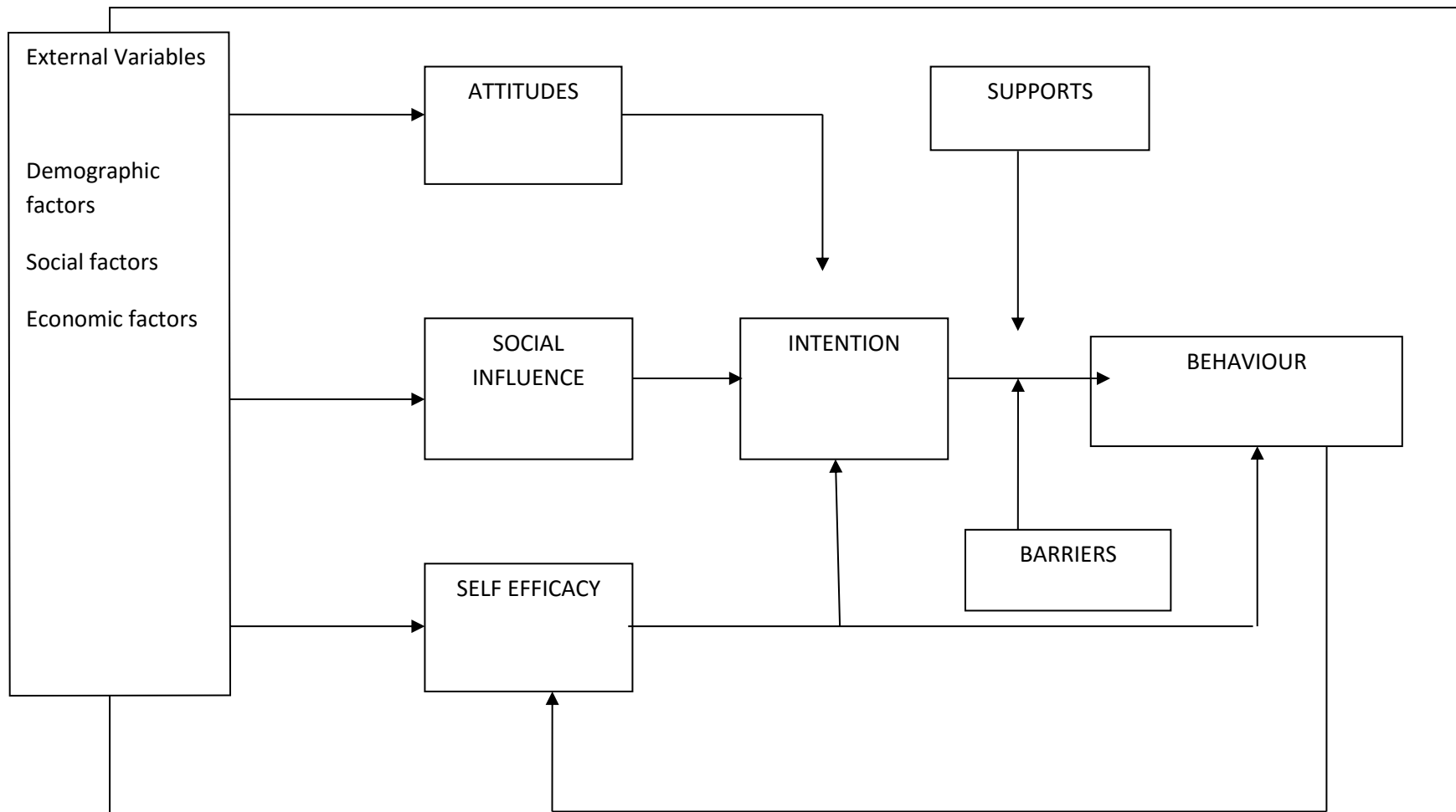
Also, Andersen's analysis entails health status results, keeping in mind the end goal to stretch out the degree of access to incorporate measurements which are especially critical for health policies and reforms. It also denotes criticism circles which mirror the result and thus, influences consequent inclining factors and perceived need for services and health behavioural issues



### **2.1.2 “The Attitudes - Social influence -Self-efficacy (ASE)” Model**

Citing Amooti-Kaguna and Nuwaha (2000), Sari (2009) expantiates on the ASE model as thus:

The attitudes social influence self-efficacy (ASE) model has been utilized in studies on determinants of utilization of health services in general and maternal health care services in particular. This model in Figure 2.2, predicts different health related practices/behaviours. There are three main psycho-social components which have been distinguished to predict behaviour goals: attitudes, social influence and self-efficacy. An individual’s attitude towards a particular behaviour is as a result of playing out a behaviour. For instance, a woman's state of mind in choosing whether to utilize family planning or conventional practice is impacted by the individual's attitude. Social influence is because of social standards: influence from other individuals whether to perform or forgo a particular behaviour, and whether other individuals in the society perform or abstain from doing a particular behaviour. Self-efficacy desires can be viewed as a man's belief whether she/he can play out the desired behaviour and deal with the barriers that may hinder him/her from performing that particular behaviour (Amooti-Kaguna and Nuwaha, 2000).



**Figure 2.2: ASE Model for Predicting Behaviour**  
**Source: Amooti-Kaguna and Nuwaha 2000**

The consequence of this model is that an individual's health behaviour can be influenced by changing the individual's perception, attitude and conventions of social norms as well as his/her self-efficacy expectations (Amooti-Kaguna and Nuwaha, 2000). In addition, social, demographic and economic factors are the external variables that influence behaviour through behavioural determinants and intention.

## **2.2 LITERATURE REVIEW**

The review of literature on the availability and accessibility to maternal health care services are calibrated under five major sub-themes. These are: (i) demographic and socio-economic factors in maternal health seeking behavior (ii) knowledge, attitudes and practices of maternal health care among reproductive age women (iii) availability and accessibility in the utilisation of maternal health care services (iv) preference in the utilization as it relates to maternal health care seeking behavior and (v) impact of geographical factors on maternal health-seeking behavior. These are discussed in turn here.

### **2.2.1 Demographic and Socio Economic Factors in Maternal Health-Seeking Behavior**

Among the maternal attributes, scholars have posited that the education of women maintains one of the strongest nexus with the utilization of maternal health care services (Sari, 2009). For instance, Sari (2009) pontificated that formal education of women in the state of Peru impacts the utilization of maternal health care services positively. According to Elo (1992), results from both the cross-sectional and fixed effects model, controlling for service availability and the socio-economic status of the family unit, affirmed the significance of maternal education on the usage of both pre-birth care and delivery assistance. In the same vein, in Thailand, one analysis demonstrated that maternal education applies a critical effect on the utilization of maternal health care services. This suggests that the chances of utilizing pre-birth care and formal delivery are substantially more prominent for women with primary education, when compared to uneducated ones (Raghupathy, 1996).

Results have also indicated that mothers who have undergone the process of formal education have a more significant consciousness of the presence of maternal health services and profited in utilizing such services. The implication of this is that educated mothers gain better knowledge and information on modern day health treatments and have more noteworthy ability to create an understanding surrounding certain diseases. It suffices to note that as education empowers women, they have more prominent certainty and capacity in utilizing the present day health care services for themselves and their children (Caldwell, 1979 and Schultz, 1984).

To this end, education of women reflects a higher expectation for everyday life and access to monetary and different assets, since better educated women will probably prefer marrying wealthier men or have increased income themselves (Schultz, 1984). Be that as it may, some scholars have argued against the postulation that education alone should not be perceived as the sole *sin qua non* for determining maternal health-care seeking behaviour. For instance, Kyomuhendo (2003) submits that regardless of an ideal and empowering policy environment with all inclusive essential education and the avoidance of the centralization of health services, there has not been an expansion in the use of emergency obstetric care by women in Uganda. This is on the grounds that women's health care seeking-behaviour was not the consequence of individual preferences or decisions but rather it was conditioned by community poverty, norms and tradition. Put differently, women's health care-seeking behavior is conditioned by certain factors that incapacitate women from seeking appropriate health care services as regards their peculiarity.

Another perspective to this issue is that the degree of the husband's education additionally reflects the tastes and preferences for health services usage by women. Indeed, the husband's state of mind towards modern day health care services could impact the wife's choice. Caldwell (1986) has posited that men with higher educational background may assume a more essential part in child-care choices than men with less education. Recently, Shariff and Singh (2002) in their study entitled *Determinants of Maternal Health Care Utilisation in India* revealed that maternal education has a very significant effect on the likelihood of health care use. Based on their findings, the education of the man expands the likelihood of pre-natal and post-natal care use by 10 percent and 8 percent respectively. They also demonstrated that the likelihood of the

utilization of trained medical personnels at the period of delivery by 7 percent (Shariff and Singh, 2002).

Existing literature on maternal health results in developing climes has demonstrated the critical part of the media platforms (radio, television and social media outlets) in disseminating information on health related issues. Three sources of information are normally utilized: radio, television, daily papers and magazines.

Put differently, the kind of exposure that women have through various media outlets such as the radio, television and daily papers fundamentally expands the usage rates for all services in India (Shariff and Singh, 2002). Available statistics indicate the existence of 5 percent expansion in the likelihood of the utilisation of ante-natal care. Additionally, Obermeyer (1993) in his research on Morocco and Tunisia affirmed that sitting in front of the television week by week is related with a rise in the probability of both pre-natal care and hospital facility delivery.

It should be noted that the autonomy that women enjoy in decision making has a major effect on maternal health seeking behavior. The point being emphasized here is that the ability of women to take decisions and exercise control over their health impacts on their behavioural posture on health seeking and utilization of healthcare facilities. Sari (2009)

Autonomy has been characterised as the ability to control one's personal environment through control over resources and information in order to care for a woman who often listens to the radio contrasted with a woman who does not settle on choices about one's own particular concerns or about close relatives. (Sari, 2009)

Similarly, Bloom, Wypij and Gupta (2001) in their analysis on the same subject matter noted that women's autonomy can be conceptualized as their capacity to decide occasions in their lives, despite the fact that men and other women might be against their desires. He argued vehemently that the relationship between women's autonomy and the utilization of health facilities cannot be severed. Blossom further posited that there are several dimensions of autonomy that if women are exposed to can impact over service use and choice. These according to him include freedom of movement,

basic leadership power and control over capital. Citing the experience of North Indian city, it has been demonstrated that women's autonomy, as measured by the degree of a women's freedom of movement, seems, by all accounts, to be a noteworthy determinant of maternal health care usage among the poor to middle class women (Bloom *et al.*, 2001).

Woldemicael (2007), examined distinctive dimensions of women's basic leadership self-rule and relationship to maternal and child health care use. From one perspective, most autonomy indicators are vital predictors of maternal health in spite of the fact that the quality and measurable important change by health care usage outcome and country. At times significance is lost when socio-economic indicators are held steady. The leadership role of women in seeing family or relatives on utilization of antenatal care and child immunization is especially amazing. Then again, the loss of centrality of different measurements of women's decision making when socio-economic variables are controlled for demonstrates that some health seeking practices are more subject to socio-economic factors like education and employment. The outcomes demonstrated that most socio-economic indicators have solid impact on the two women's basic leadership independence and on maternal and child health services use. These findings propose that both women's self-sufficiency and socio-economic indicators ought to be analysed with a view to understanding the determinants of maternal and child care services usage.

The question of women dependence on men for monetary survival is undoubtedly a major barrier to women's control over their conceptive behaviour in 'third world' nations. Enhancing or encouraging the participation of women in the economic life of their family units and groups may be the way to their accomplishing a kind of 'authority' on their conceptive wellbeing. Access to employment opportunities has been identified as a crucial factor that increases women's economic or financial status and thus conceptive health status. This is so because it brings issues to light and gives new thoughts, behaviour and openings through connection with other individuals outside the home and group (Sharma, Sawangdee and Sirirassamee 2007).

Sharma *et al.*, (2007), observed that employment may not really be related with more prominent subscription to certain maternal health services. The experience of Nepal points to the fact that non-working women might be in an ideal situation than working

women. With regards to developing nations, women's work is to a great extent destitution prompted and is probably going to negatively affect use of maternal health services.

The husband's occupation can represent family wage or societal position, and it is settled that expanded wage, positively affects utilisation of present day health services (Elo, 1992). Differential usage of health services by various women is a manifestation of the occupation of their husbands. Paul and Rumsey (2002) in provincial Bangladesh demonstrated that fathers employed in non-agricultural occupations picked trained personnel for delivery more frequently than fathers who were ranchers or individuals from other occupation. Chakraborty, Islam, Chowdhury and Bari (2002) in their study on Bangladesh postulated that women whose spouses work in business or services are destined to be the clients of expert health care services to treat their complications.

There is no gainsaying the fact that older and youthful women have diverse experiences and age impacts their behaviour on seeking health care. Raghupathy, (1996) pontificates that a higher number of younger women will probably use present day health care facilities than older women, since they probably have more exposure to knowledge of modern health, more access to education while older women have accumulated knowledge based on experience on maternal health care and in this manner liable to have more certainty about pregnancy and labor or they might be less comfortable with current medication and more hesitant to exploit accessible services; as a result, they may give less significance to get institutional care. Interestingly, experience and abilities gained by more seasoned women ought to affect the utilisation of health services.

Sharma et.al, (2007) in Nepal demonstrated that women more than 35 years are less inclined to use pre-natal care however more prone to use delivery and post-natal care. Paul and Rumsey (2002) in Bangladesh showed the kind of professional attention women get at delivery does not vary essentially with the age of the mother.

In Philippines, more educated mothers have a tendency of having less conventional visits both in urban and rural areas and to expand their private visits in urban regions (Wong, Popkin, Guilkey and Akin, 1987).

Place of residence has likewise been shown to be a vital indicator of the utilization of present day health care resources for child birth. Paul and Rumsey (2002) explained that a higher proportion of births in urban areas occur in modern health care facilities contrasted with rural areas. Obermeyer, (1993) in Morocco likewise showed that residence is the most grounded indicator of utilization of maternal health services, with urban women a few times more inclined to utilize health services. Wong et al., (1987) in Philippines revealed urban and rural women contrasted altogether in the sorts of pre-natal medical care often used. For the urban women, the most commonly used type of care was modern public, while rural women often used traditional practitioners. Generally, about 38% of the rural and 59% of the urban women had modern pre-natal medical care. The place of residence of women is important when defining women's use of maternal health care. It can also be described through the availability of health facilities. It is very clear that generally, medical facilities are more readily accessible in urban than rural areas. Also, urban women tend to be more educated and as such, have greater knowledge about the advantages of maternal health care.

Several studies have revealed that there is a serious negative relationship between birth order and the use of health care services in modern times. There are perhaps, three possible explanations for this. It has been demonstrated by a recent research that women with first child pregnancy were more careful about subsequent pregnancies and as a result sought out trained medical professionals. It has also been confirmed that as the number of children born increases, women may tend to believe that modern health care is not as necessary and tend to rely more on past experiences and knowledge. In the same vein, a higher birth order indicates a greater family size and as such lower resources (both time and money) available to seek formal healthcare. The study carried out by Celik and Hotchkiss (2000) on maternal healthcare in Turkey showed that women who delivered their first child were found to be more likely to use pre-natal care and professional assistance during delivery than women with more than two children.

Babalola (2014) scrutinised the compelling and propelling factors associated with utilization of maternal health services (MHS) giving birth in Haiti from 2007–2012. In a multilevel analysis of observational data derived from mortality, morbidity and service utilization survey was analyzed. Oyewale and Mavundla (2015), in a survey assessed the social and economic variables that contribute to exclusion of women from



maternal health benefit in the capital city of Nigeria. Oyewale and Mavundla's investigation indicated that there exists some variations in the utilization of maternal healthcare services. They submitted that ante natal care, delivery care, post natal care and contraceptive services among women with different socio-economic characteristics; and the payment system for maternal healthcare services was regressive. Oyewale and Mavundla found out that there were inconsistencies in the predictive effect of the socio-economic characteristics of women (age, education, birth order, location of residence, income group and coverage by health insurance) on maternal healthcare service utilization when considered independently with the exception of birth order, which showed consistent effect. In other words, the socio-economic characteristics of women were predictive factors of utilization of maternal healthcare services.

Similarly, Shah and Bélanger (2011) subjected the socio-economic correlates of utilization of maternal health services by tribal women in India to rigorous assessment. Based on two waves of the National Family Health Surveys of India, the research investigated the effect of maternal characteristics on women's likelihood of using pre-natal and delivery healthcare services among two groups of tribal women. The research utilised secondary sources of data from the National Family Health Survey 2 and 3 of India conducted in 1998–99 and 2005–06, respectively. The results revealed that tribal women in the northeastern states of India are more likely to utilize maternal healthcare facilities compared to those in the central states of the country.

Dagne (2010), analysed data from the 2005 Ethiopian Demographic and Health Survey to study the role of socio-demographic factors on utilization of maternal health care services. From their findings, the result indicated that only 30% of the women received antenatal care while 11% received assistance during delivery from health professional. He further noted that:

The use of these services was very low among rural women as compared to those living in urban areas. Educational background of the mother, household wealth, place of residence, birth order of the child, educational and occupational status of the husband were found to be strong indicators of utilization of health care facilities. Antenatal care use was found to be a strong indicator of use of assistance during delivery. The impacts of these variables differ according to place of residence. In the urban women household wealth, sex of household head and occupation of the husband had no impact on both antenatal care and use of assistance during delivery. Birth order and sex of household head were not significantly connected with antenatal care use in the rural women and education of the mother was not found to be significantly related to the use of delivery assistance in the rural area (Dagne, 2010).

Abor and Nkrumah (2011), examined the socio-economic indicators of maternal health care utilization and variation in utilization of maternal health services overtime in the 21st century Ghanaian society. They discovered a low use of prenatal care, delivery at a health facility and post-natal care results to reduction in the use of such services over time were found out. Access to health facilities, household wealth, residence, ethnicity, geography, age, education among other characteristics was identified as important socio-economic factors influencing utilization of maternal health services. Education, residence and accessibility to health facilities show clearly important denominators to inter-period changes in utilization of maternal health services.

Chubike and Constance (2013), in their study on Abakaliki analyzed the demographic characteristics of women on the utilization of maternal health services. The researchers investigated the impact of maternal age, maternal occupation, parity, number of living children and husbands' educational background on the subscription to maternal health services. Maternal age, parity and number of living children have significant effect on maternal utilization of health services while maternal occupation and husband educational level do not have significant effect.

Investigating the effect of demographic and socio-economic factors on the utilization of maternal health care services using the 2006 Uganda Demographic Health Survey, Sabiti, Amoateng and Ngake (2014) concluded as thus:

...three indicators of maternal health care services were examined, namely visits to antenatal clinic, tetanus toxoid injection and place of delivery. It was found that urban women are more likely compared to their rural counterparts to use antenatal care services, receive tetanus toxoid injection and deliver babies in public health facilities. The same positive relationship was observed between a woman's educational background and visit to antenatal care clinic, place of delivery and tetanus toxoid injection (Sabiti *et al.*, 2014).

Pandey and Karki (2014), in central Nepal showed that although more than half of the women of child bearing age were not aware of the outcomes of lack of antenatal care, age, education, income, type of family had a strong relationship with the attendance at antenatal care service.

In other words, socio-demographic, socio-economic, cultural and service availability as well as accessibility influences the use of maternal health services.

Chomat, Solomons, Montenegro, Crowley and Bermudez (2014), revealed that in Quetzaltenango, extreme poverty, poor education, and poor access to basic resources were prevalent among pregnant and breast feeding women. Out of 100 women 14–41 years old, 33% did not use the formal health care for antenatal care; the majority consulted traditional birth attendant. Only 13% delivered in hospitals. Lower socioeconomic status and lack of fluency in Spanish, socio-economic disparities, ethnic and linguistic differences, and poor access to basic resources were found to be a barrier to access and utilization of health facilities. Mluleki. and Sathiya (2015), used qualitative methods to examine the socio-demographic determinants of maternal health care utilization in Mdantsane, a township in the Eastern Cape Province of South Africa, in which it has been shown to hinder maternal health care.

### **2.2.2 Knowledge, Attitudes and Practices of Maternal Health Care Services Among Reproductive Age Women**

Knowledge, attitudes and practices of maternal health care services among reproductive age women have been well documented in the literature (Prabir, Debasis and Debidas 2011, Ajediran, Augustine, Jonathan and Hughton 2013., Adeusi, Adekeye and Ebere 2014). These authors suggest that socio-economic factors significantly influence the ante-natal coverage, knowledge, attitude and practices; as a result initiatives should be taken at government and non-government levels to increase knowledge, attitude and practices for the improvement of ante-natal and delivery practices to develop a sound health for future generation. Also there is urgent necessity to provide women with the appropriate health education to enable them make informed decisions concerning their health and that of their children.

Similarly, Perumal, Cole, Ouedraogo, Kirimi, Cornelia, Low, Levin, Kiria, Kurji and Oyunga (2013), in Western Kenya examined the health, knowledge of nutrition, attitudes and practices of pregnant women attending and those not attending antenatal care (ANC) clinics. The study revealed higher number of ante-natal care clinic visits and higher maternal education level were significantly positively related with maternal health knowledge and practices. Levison, Nanthuru, Chiudzu, Kazembe, Phiri, Ramin and Aagaard (2014), in Malawi showed that baseline knowledge and perceptions regarding pre-mature birth and oral health in at-risk, low resource setting. They suggested dissemination of knowledge to both patient and providers and practical barriers in known efficacious therapies.

On the other hand Olugbenga-Bello, Asekun, Adewole, Adeomi and Olarewaju (2013), in Osun State Nigeria examined men's perception, attitude and involvement in maternal care using a cross sectional descriptive survey. The result revealed level of awareness of men about maternal health was high, whereas their involvement in giving care was poor and only about half of them had good attitude towards maternal health care. Education and awareness programs should therefore be carried out by governmental agencies and non-governmental organizations to address involvement of men in maternal health care. The attitude and socio-cultural practices during pregnancy among women in Akinyele Local Government Area of Oyo State was examined by Ezeama and Ezeamah (2014). The result revealed that the more educated the pregnant women were, the more they registered and attended the ANC. As such regular health

education of pregnant women on how to minimize unhealthy cultural practices was recommended whereas, Kululanga, Sunday, Chirwa, Malata and Maluwa (2012), examined the factors militating against husbands' participation in maternal health care in a rural setting in Malawi. They contended as thus:

The sex role norms and health system issues were the two main barriers to husband involvement in maternal health care. Therefore, it was suggested that maternal health care services that are essential should be de-feminized in order to create the foundations for a more equal access by both women and men (Kululanga *et al.*, 2012).

Barry, Frew, Mohammed, Desta, Tadesse, Akilu, Biadgo, Buffington and Sibley (2014), assessed the impact of community maternal and newborn health care on type of birth attendant and completeness of maternal and newborn care received during birth and the early postnatal period in rural communities in the African state of Ethiopia. They observed that

the Maternal and Newborn Health in Ethiopia Partnership (MNHEP) family meetings complemented routine antenatal care by engaging women and family caregivers in self-care and health care seeking, resulting in greater completeness of care and more highly skilled birth care (Barry *et al.*, (2014).

Ojong, Uga and Chiotu (2015), investigated pregnant women's knowledge and attitude towards focused antenatal care using a descriptive design. Although knowledge towards focused antenatal care was high and attitude was favorable, intensive awareness creation on focused antenatal care for pregnant women was recommended.

In another study, Yar'zever and Said (2013), in Kano State, Northern Nigeria, assessed the knowledge of the utilisation of maternal health care services using cross-sectional descriptive study. Knowledge of maternal health facilities and services generally showed that urban and rural reproductive women had extremely sound knowledge of maternal health service and programs provided by the government with 99.0% of urban and 82.4% of rural. While overall, only 63.4% and 51.4% both urban and rural utilize health facilities and its programs. Knowledge of maternal health facilities was

higher among those with formal education, high income and younger respondents. Whereas Butawa, Tukur, Idris, Adiri and Taylor (2010), in Kaduna State, Nigeria examined the knowledge and perceptions of maternal health. They submitted as thus:

The association among the respondents' educational level and their maternal health knowledge was significant. Socio-economic barriers were identified as limiting this population's optimal utilisation of maternal health services. In addition, some respondents perceived available health care services to be of low quality. In order to improve reproductive health in rural northern Nigeria, it is important to improve access to formal education, raise knowledge about maternal health care, and improve the quality of care offered in health care facilities (Butawa *et al.*, 2010).

### **2.2.3 Availability and Accessibility in the Utilisation of Maternal Health Care Services**

Assessing the usage of maternal health-care involvement in developing climes, Lale and Rosalind (2007) observed that there is variations in the scope, strength and implications of evidence. They also noted that there exists some lines of divergence which are caused by factors associated with health-care users (e.g. age, education, medical insurance, clinical risk factors) or to supply of health care (e.g. clinic availability, distance to facility), or by an interaction between such factors (e.g. perceived quality of care). The line of divergence was usually framed by contextual issues having links to funding and organization of health care or social and cultural dynamics. Of course, the evaluation of the context-specific causes of varying use of maternal health care, if safe motherhood is to become a reality in developing countries must be attempted. Nnebue, Ehenebe, Nwabueze, Obi and Ubajaka and Iiika (2014), examined constraints to utilisation of maternal health services at the primary health care sector. Bad state of roads, lack of transportation and high transportation cost were some of the difficulties experienced before utilizing the facilities. Whereas, difficulties experienced at the facilities were inadequate medical equipments, lack of transportation and unavailability of drugs. The study revealed that apart from ante-natal care, other maternal health services were underutilized. Funding, good access

roads, affordable transportation and appropriately integrated services would boost utilisation.

Factors related with maternal health care services such as income status, knowledge on danger signs during pregnancy, husbands education and place of delivery were the determinant factors for Antenatal care (ANC) while income status, family size, the women`s time taken to health facility, husband attend ANC with spouse and who decides place of delivery were the determinant factors for delivery service utilisation. Postnatal care was associated with place of delivery, knowledge on complicated related pregnancy, from where information is received and knowledge on postnatal care. The proportion of ANC, delivery service, and postnatal care in Northern Ethiopia was fair. Women`s own monthly income, husbands` educational status, place of delivery and their knowledge on danger sign that could occur during pregnancy could influence ANC utilisation. The husband`s educational status might have an impact on women`s decision to deliver at health institution and accompany of women to ANC by their husbands and their awareness on postnatal care services could influence postnatal care utilisation (Asfawosen, Mussie, Huruy and Wondeweson 2014).

To Okeshola and Sadiq (2013), certian contributing factors are associated with home delivery. For instance, access to the socio-demographic characteristics of women who give birth at home is of major consideration. Okeshola and Sadiq (2013) submitted that effective interventions to promote maternal health service utilisation should target the underlying individual, household, community and policy-level factors.

Similarly, in their investigation of the level of awareness and barriers to utilisation of maternal health care services among reproductive women age (15 to 45 years) in Bayelsa State, Onasoga, Osaji, Alade and Egbuniwe (2013), submitted as thus:

The study discovered that the majority of the respondents [182 (94.8%)] already were aware of maternal health services but only a small number actually knew the main services rendered at maternal health care services. The major variables associated with barriers to utilisation of maternal health services among respondents were poor knowledge of the existing services, previous bad obstetric history, and attitude of the health care providers, availability, accessibility and husband's acceptance of the maternal healthcare services. The researchers suggested that government should fund maternal health services in order to make it affordable, acceptable and available to women. Also nurses should encourage women of reproductive age to utilize maternal health by providing a welcoming and supportive attitude at all contacts (Onasoga *et al.*, 2013).

Ugal, Ushie, Ushie and Ingwu (2012), on maternal healthcare in Cross River State, Nigeria revealed that maternal health facilities are available in the state but majority of them do not satisfy the international standards for both Basic Essential Obstetrics Care and Comprehensive Essential Obstetrics Care. Besides, they observed that certain constraints impede the utilisation of health facilities. These according to them were health cost, culture and decision-making issues. The result of their research also indicated the existence of a significant association between utilisation of maternal health facilities and the success rate of maternal health and live birth outcomes. The upgrading of maternal health facilities in all areas is relevant to improving maternal health outcomes.

Still on the subject matter, Worku, Yalew and Afework (2013), evaluated the various factors responsible for the effective utilisation of skilled maternal care in the North-western part of Ethiopia. They subjected the consequence of individual, communal, and health facility characteristics in the utilisation of antenatal, delivery, and postnatal care by a skilled provider to the rigour of scholarly assessment. The results of this study are stated thus:



About 32.3%, 13.8% and 6.3% of the women had the opportunity to get skilled providers for their antenatal, delivery and postnatal care, respectively. A noteworthy heterogeneity was observed among groups for each indicator of skilled maternal care utilisation. At the individual level, variables related to awareness and perceptions were found to be much more relevant for skilled maternal service utilisation.

Preference for skilled providers and previous experience of antenatal care were consistently strong predictors of all indicators of skilled maternal health care utilisations. Birth order, maternal education, and awareness about health facilities to involve skilled professionals were unswervingly strong predictors of skilled antenatal and delivery care use. Mutual factors were relevant for both delivery and postnatal care, while the features of a health facility were more pertinent for use of skilled delivery care than other maternity services.

Factors operating at individual level play a significant role in determining utilisation of skilled maternal health services. Involvements to make better community consciousness and perception about skilled providers and their care, ensuring the seamless performance of health care facilities have been well thought-out crucial to improve skilled maternal services and such interventions should target underprivileged women (Worku *et al.*, 2013).

Another study on South Africa shows that there are disparities as regards access to and use of maternal health services, Silal, Penn-Kekana, Harris, Birch and McIntyre (2012). The study looked at the phenomenon of affordability, availability and acceptability obstructions to obstetric care from the viewpoints of women who had in recent times used or attempted to use, these services. It was observed that one notable factor impedes access to obstetric services. This they referred to as affordability,

availability and acceptability barriers. Explaining the effects of these impeding factors on maternal health in South Africa, Silal *et al.*, (2012) concluded as thus:

...Rural women encountered the utmost obstacles, including extended travel times, highest costs connected with delivery, and lowest ranks of service acceptability, comparative to urban residents. Negative provider-patient exchanges, including staff inattentiveness, turning away women in early-labour, shouting at patients, and insensitivity towards those who had experienced stillbirths, also inhibited access and compromised quality of care.

To change towards realizing its MDGs, developing countries cannot just focus on growing levels of obstetric coverage, but must scientifically examine the access restraints facing women during pregnancy and delivery. Additional expectations ought to be met to respond to these “patient-oriented” barriers by refining how and where services are provided, mostly in rural areas and for poor women, as well as changing the attitudes and actions of health care providers (Silal *et al.*, 2012)

Using India as a case study, Bredesen (2013), posited that the ability of women to utilize healthcare services in rural communities of India is directly linked with low access to health care resources and inadequate educational resources, distance, cost of transportation, cultural, religious, and family factors. According to him, when women's perspectives are properly construed and understood, there will be a kind of reduction in the barriers to health care during pregnancy and childbirth. Corroborating Bredesen's argument, Babalola and Fatusi (2009), in their research on the determinants of the use of maternal health services explained that individual, household, community and state-level factors are the crucial element that influence maternal health in different parts of south-western Nigeria. The results of their study are presented as follows:

...Almost three-fifths (60.3%) of the mothers used antenatal services at least once during their most recent pregnancy, while 43.5% had skilled attendants at delivery and 41.2% received postnatal care. There are cohesions and differences in the predictors of the three indicators of maternal health service utilisation. Education is the only individual-level variable that is steadily a substantial predictor of service utilisation, while socio-economic level is a consistent significant predictor at the household level. At the community level, urban residence and community media saturation are dependably strong predictors. In disparity, some factors are significant in predicting one or more of the indicators of use but not for all. These varying predictors include specific discrete level variables (the woman's age at the birth of the last child, ethnicity, the notion of ideal family size, and approval of family planning), a community-level variable (prevalence of the small family norm in the community), and a state-level variable (Babalola and Fatusi, 2009).

Adopting a similar methodological approach as Babalola and Fatusi, Envuladu *et al.*, (2013) stated that the cost of hospital bill (93.6%), unfriendly attitude of health care workers (61.4%), unexpected labour (75%), distance to health care centres (36.4%), and failure to book for ANC (10.7%) are some of the factors that determine the choice of a place of delivery among pregnant women in Jos Plateau, central Nigeria. Envuladu, Agbo, Lassa, Kigbu and Zaokah (2013), therefore submitted that in order to reduce child morbidity and mortality rates and refining maternal health, important consideration must be given to factors like female education and empowerment, attitude of health care workers and distance of health facilities to the people in most communities. These according to them will enhance the attainment of millennium development goals.

On the other hand, Yiran, Teye and Yiran (2014), using mixed methods, examined accessibility of maternal healthcare by migrant female headporters in Accra, Ghana. The results revealed that factors affecting accessibility of maternal health services are geographical accessibility, financial accessibility, acceptability, constant shortage of medicines in the hospitals and many others. It was therefore suggested that government should increase the number of health facilities as well as strengthen the National Health Insurance Scheme so as to increase access to healthcare by this vulnerable and poor group of people. Bhattacharjee, Datta, Bikash and Chakraborty (2013), assessed the status of maternal health care services utilisation and associated factors among recently delivered women in India. They assessed the extent of Utilising maternal health care services including antenatal care during pregnancy, providing of safe delivery and postnatal care after delivery. The important factors associated with low utilisation of services were belonging to Islam, Scheduled tribe, lower socio-economic status, and lower literacy level of both the husband and wife. The major barrier towards utilisation of these services was ignorance followed by distance to the health care center. It also provided new insight for policy makers to mobilise funds for achieving the best possible quality of maternal and child health services.

Lubbock and Stephenson (2008) have also established the fact that procrastination in seeking maternal health care amid pregnancy are affected not only by poor access to care and economic barriers but also by individual and community knowledge and reception of maternal health services. The support given by men to their wives during pregnancy, earlier maternal health care experiences, and the level of communication with other women and health workers affect women's decisions to seek maternal health care services. Available evidence indicates that in order to improve maternal health outcomes in developing nations, interventions must be applied at a hierarchy of levels: individual, household, and community. According to Akpenpuun (2013), some socio-cultural factors impact the utilization of maternal and child healthcare services in some local government areas of Benue state in North-central Nigeria. Akpenpuun's study showed that the level of education of mothers' patriarchal family system, cultural beliefs and economic status of the family are the salient features whose influence on the level of utilisation of maternal and child healthcare services cannot be overemphasized.

In their analysis on the rate of utilisation of maternal health services in the Indian city of Nepal, Baral, Lyons, Skinner and Van (2012), confirmed that educated and enlightened women, who live in urban areas and central and western regions of Nepal and who are the comfortable households, are more likely to use maternal health services than others. They also observed that women who have more than three living children are less likely to use maternal health services than others in the same city.

Taking the research a little further, Azuh, Fayomi and Ajayi (2015), argued that the husband's perception of pregnancy complications, age at marriage, family type, treatment place decision among other factors are the essentials that determine the utilisation of health care services by mothers. Concurring to the conclusion reached by Azuh *et al.*, (2015), Singh *et al.*, (2014) affirmed that there is a considerable amount of variation in use of maternity care as a result of factors like educational attainment, household wealth, religion, parity and place of residence. They noted that the encouragement of the use of family planning, female education and higher age at marriage, training susceptible groups, involving media and grassroots level workers and collaboration between community leaders and health care system are important strategies for improving the usage of maternity services among urban adolescents.

Some scholars have also noted that the availability and accessibility in the utilisation of maternal health care services determines the extent to which maternal health services are utilized (See Ganle *et al.*, (2014), Wilnda, Oyerinde, Putoto, Lochoro, Dall, Manenti, Segafredo, Atzori, Criel, Panza and Quaglin, 2015). From the findings of such scholars, policy interventions should center on age differentials in use of maternal and child health services. The implication of this submission is that women with higher parities and those in rural areas with poor income are more susceptible to the problem of poor maternal health care utilization. It has also been deduced from findings that there is need to increase the availability and the accessibility of skilled birth care, address the low utilisation of maternity services and improve the quality of care rendered.

#### **2.2.4 Preference in the Utilisation of Maternal Health Care Facilities**

On the issue of preference in the utilisation of maternal health care facilities, Cheptum (2014) and others in their study entitled *Barriers to Access and utilization of maternal and infant health services in Migori Kenya* stated unequivocally that although there are some barriers to access and utilize maternal and infant health services, gradual access and utilisation of these services requires concerted efforts by the community and the government in policy making. Akanbiemu *et al.*, (2013) supports this view in his study as thus:

About two fifth (40.8%) informed that ante-natal care (ANC) services were the main reason for choosing public ANC facilities. Almost two-third (63.0%) of the respondents had good knowledge of ANC, while about 35.9% had positive perception towards free ANC services. Higher utilisation of ANC services was observed among married or cohabiting women than the singles and widows. Perception of women on free ANC utilisation was negative although free ANC program instituted by government across the state enhanced ANC utilisation. The government should sustain the policy on free maternal health services (Akanbiemu *et al.*, 2013).

Interrogating the problems of utilising maternal healthcare services in Nigeria, Ajaegbu (2013) posited that three-quarters of women testified they have at minimum one problem in accessing health care in some parts of the Nigerian polity. His result also indicates that 56% of women opined that getting money for treatment was a grave impediment militating against easy access to health care services. Apparently, an inadequate fund for treatment constitutes a serious impediment easy access to maternal health care services in Nigeria. Other problems such as transportation and distance to hospitals poses great challenge to accessing maternal health care services in rural areas of Nigeria. Looking at the problems of accessibility to maternal healthcare services in Uttarakhand, Chimankar and Sahoo (2011) submitted as thus:

....the results revealed that the educational level of women, birth order and wealth index are significant predictors in explaining ante-natal and delivery care. Adjusting the effect of other variables, the predictive power of women's educational level, wealth index have been definitely associated with antenatal care and also delivery care (Chimankar and Sahoo, 2011).

Kou, Poon, Tse, Mak and Leung (2015), noted that, knowledge and future preference of Chinese women in the utilisation of a public hospital in Hong Kong to other maternal health care facilities was based on perception and level of education. More information should be provided by health care professionals in order to facilitate an informed choice by patients.

#### **2.2.5 Effects of Geographical Factors on Maternal Health Seeking Behaviour**

Available scholarly works in orthodox literature indicate that distance and other geographical factors are often regarded as major intervening traits for access to medical care and resultant health outcomes (See Peters, Anu, Gerry, Damain, William and Rahman 2008, Cromley and Cromley 2009). Studies in developing nations have revealed that the deplorable condition of many roads and poor communication network, particularly in the poor, remote and adverse physiography constrain access to healthcare and results in poor health outcomes ( See Baker and Will, 2000; Rahman and Devid 2000, Gupta, Pascal, Khassoum and Mario., Peters *et al.*, 2008).

Suffice to note that some scholars have faulted the theory of geographical determinism when considering the issue of accessibility to maternal health care services in some climes. Scholars who subscribe to this strand of thought argue that the role of geographical accessibility differ as per the perceived health needs, where the population that has a higher perceived need for services gets less swayed by geographic inaccessibility (See Arcury *et al.*, 2005, Furuta and Salway, 2006, Kumar,). For instance, evidence abound from studies on India and other developing nations suggesting the fact that for child birth and maternal health needs in particular, the role of geographical accessibility gets overshadowed by the tradition linked to it (See Arcury, Wilbeth, John, Jill and Jamie 2005, Furuta and Salway, 2006).

Okafor (1982), observed in the study of spatial location and utilisation of health facilities in defunct Bendel state, Nigeria that utilisation of health facilities is closely bound to their location, since distant location implies a higher delivery price of health services. Also Stock (1983), in a study of distance and utilisation of health facilities in rural Nigeria found that the effects of distance decay on utilisation levels varied according to type of facility, social and demographic variables and illness. Although the per capita consumption of health care decreases exponentially for concentric bound villages showed great disparities in utilisation rates which are only partly attributed to distance. In the same vein, Buor (2004a) is of the opinion that the fundamental issues impacting health services are: distance, education, income, service costs, insurance status, residential status and attitude of medical staff. To Buor, poverty, literacy, poor physical access, poor access of insurance, place of residence and attitude of medical staff are the forces that influence access to health services in many parts of sub-saharan Africa.



## **CHAPTER THREE**

### **METHODOLOGY**

This chapter presents the design and methods used in the study. It deals with data collection and the analytical techniques that were used. This study was carried out using facility-based and cross-sectional survey design to determine the spatial variation in maternal health-seeking behavior among women of child bearing age in Ibarapa Region, Oyo State, Nigeria.

#### **3.1 Research Design**

The survey method was employed to determine the spatial variation in maternal health-seeking behaviour in Ibarapa region. The study utilised structured questionnaire, In-depth Interviews (IDIs) and Key Informant Interviews (KIIs), for primary data collection. Secondary data were collected from published sources, information on locality based population census data was obtained from the National Population Commission (NPC); the map of the study area was obtained from the Ministry of Physical Planning and Urban Development and Surveyor General's office at the state secretariat in Ibadan. A list of all maternal health centres (orthodox and non- orthodox) was obtained from the department of health of the three LGAs in Ibarapa Region (see Appendix 1).

#### **3.2 Sample Size and Sampling Technique**

The study population comprised women aged 15-49 years in Ibarapa region. This age brackets represent reproductive years of women as defined by WHO (2006). Eligible participant included all women who attended and utilized the health care facilities for their maternal needs and have given birth in the last five years and or are pregnant and resident in Ibarapa region as of the time of the survey.

It is not feasible to study the entire population and hence the need for sampling. Since conclusions from the samples are used to generalize for the entire population from which the samples are selected, there is the need to ensure that the samples are representative of the population from which the samples were drawn. Therefore, to

obtain a sample, which will be representative of women of child bearing age of 15-49 years in the study area, the following factors were taken into consideration in choosing the sampling error permitted  $e$ , the level of confidence  $z$ , and the proportion of women of child bearing age (WCBA), 15-49 years in the total population  $P$ :-

1. The total population of women and the proportion women of child bearing age in the total population
2. The level of variability of women of child bearing age.
3. The sampling methods that will be involved.

In view of the foregoing factors, the sampling error,  $e$  is taken as 0.02; the proportion of women of child bearing age (15-49years) in the total population of females in Ibarapa region was 73,181 (HIMS, 2007). This figure was projected to 2012 using a growth rate of 3.2% approved by the National Population Commission. This gave a total of 75,023, while the total female population in Ibarapa region was 158,037. This also was projected to 2012 using a growth rate of 3.2%, which gave a total of 163,094, representing 46% of the total female population. Thus,  $p$  was taken as 0.5 and the confidence level 95 per cent ( $z= 1.96$ ).

Hence, the sample size  $n$  is equal to the  $Z$  value squared multiplied by the proportion of women of child bearing age (15-49) years in total population of females  $p$  divided by the sampling error  $e$  squared.

$$n = \frac{Z^2 P (1-P)}{e^2}$$

(Mason, 2002; Berenson and Levine, 1998)

Where,

$n$  is the sample size

$P$  is the proportion of child bearing women (15-49) years

$e$  is the permitted error

$z$  is the level of confidence

$$n = \frac{1.96^2 \times 0.5 (1-0.5)}{0.02^2}$$

$$n = 240$$

Thus, n was multiplied by three (3) to give a total of seven hundred and twenty (720). This reduced the sampling error.

Seven hundred and Twenty (720) respondents filled a set of questionnaire which was administered to women ages 15-49 years in the three (3) LGAs using proportional sampling technique. The questionnaire was administered in each maternal health care centre randomly selected. At the end of the fieldwork, a total of 707 (97.5%) questionnaire were found useful for this study. This was shared as follows: In Ibarapa East 227, Ibarapa Central 239 and Ibarapa North 241.

### **3.3 Sampling Technique**

The study used simple random sampling technique to select representative sample from the study population in view of the spatial undertone of the study. Stratification of Health care facilities was done based on the hierarchy of these facilities. The maternal health care centers were classified into tertiary, secondary and primary on the basis of the services provided.

Simple stratified random sampling technique was used to select five wards from each of the LGAs. The wards that were selected had maternal health care (MHC) facilities while the purposive sampling technique was employed to select the maternal health care centres and respondents. The maternal health care centres included government hospitals, private hospitals, mission homes/faith clinics and traditional/herbal centres (see Table 1.1). A set of questionnaire was administered to women of child bearing age present at the selected health care facilities. However, respondents for the key informant interviews (KIIs) and in-depth interviews (IDIs). One tertiary, three secondary, and five primary healthcare facilities were purposively selected from each LGA.

### **3.4 Methods of Data Collection**

The data collected for this research were from both the primary and secondary types of data were quantitative and qualitative in nature. Primary data collection involved reconnaissance of the study area/communities, direct field observation, oral interviews, structured questionnaire and data on distribution of health care facilities was collected

using global positioning system (GPS) which was used to geo-reference the selected locations. Several visits were paid to the LGAs with a view to identifying all maternal health care centers (orthodox and non-orthodox). This provided the researcher the opportunity to meet with the officials of Ministry of Health/Clinics, Local Government Health Departments, LGA Chairmen/Councilors, women leaders, and community and opinion leaders in order to solicit their support and co-operation.

The secondary data were collected from published sources which provided necessary and useful information on the subject matter.

### **3.4.1 Survey Method**

Survey formed a vital aspect of collecting quantitative data with the use of questionnaire. The questionnaire served as the primary instrument used for this study. The questions were partly adopted and structured to reflect the maternal health issues relevant to the objectives of the study. The research objectives were reflected in the specific questions asked in the questionnaire and this helped to elicit information from the respondents. The answers so derived from the questionnaire therefore, formed the basis on which analyses were made.

The questionnaire was designed in such a way that demographic, socio-economic, spatial cultural, environmental and political factors and maternal responses towards health care facilities and utilisation were captured. The instrument was divided into four sections. Section one covered the demographic and socio economic factors in maternal health seeking behaviour. Section two pertains to the knowledge, attitude, and practices of maternal health care services among reproductive age women while section three was on the availability and accessibility in the utilisation of maternal health care services. Section four dealt with the preference in the utilisation of maternal care facilities (see Appendixes II and III). Data on sections one to four were collected using questionnaire, In-depth Interviews (IDIs) and Key Informant Interviews (KIIs).

The respondents were made up of both educated and uneducated women, who were married or unmarried but had given birth in the last one year and or were pregnant. Based on the fact that majority of the respondents could not read and write in simple sentences, the questionnaire was translated into Yoruba language as this is the major

language spoken in the study area for good understanding and ease of service to all eligible respondents. Also the questions were read out and interpreted to respondents with the support of trained research assistants. Most of the questions were close ended; with a few open ended questions for the respondents to express their views on key issues.

The questionnaire was pilot- tested by administering it to 36 (thirty-six) women of child bearing age as participants from three randomly selected maternal health centres in August 2014, in two wards each from the three LGAs that were not included in the main research. This facilitated to determine required modifications in terms of re-phrasing and logical arrangement of the questions in the questionnaire. The essence was to ensure that the items were not ambiguous and also adequate for the study.

### **3.4.2 In-depth Interviews**

In-depth interviews (IDIs) were used to complement the questionnaire survey in eliciting information that pertains the subject matter. The primary objective of the interviews was to explore reproductive age women's perceptions and behaviour on key issues concerning reproductive health. Fifteen (15) in-depth interviews were conducted with five respondents purposively selected in each of the LGAs. The interviews were conducted at different times and locations. Some interviews were conducted in the maternity centres/hospitals, while some were conducted immediately after the questionnaire had been administered.

The in-depth interview question guide (see Appendix IV) was designed in a way that the informants were encouraged to discuss in details on specific themes that were identified for in-depth understanding .The researcher served as the facilitator, while a tape recorder was used to record the interview, which was later transcribed for the purpose of analysis.

### **3.4.3 Key informant Interviews**

The other interview guide was for medical personnel. Six key informant interviews, representing one orthodox and non- orthodox medical personnel from each of the LGAs. The guide was structured to elicit information on pregnancy experiences and complications (see Appendix V). It probed the role of medical personnel in maternal

health seeking behaviour and also to correct the relationship between medical and social factors in maternal health complications.

### **3.5 Procedure for Data Collection**

Some steps were taken to guarantee the collection of accurate and reliable data for the study. These include the selection and training of field assistants, administration of questionnaire, conducting of the key informant interviews and in-depth interviews. 12 research assistants were employed for the purpose of administering the questionnaire as well as to assist with the conduct of indepth interviews and key informant interviews.

The administration of the questionnaire took place over a period of one month, (Mid-December 2014 to Mid-January, 2015). The questions took an average of 20 to 25 minutes for each respondent to complete.

The first level of qualitative data collection was to secure ethical approval from the Oyo State Ethical Review Committee to interview medical personnel in each of the various maternity centres/or general hospitals in each of the LGAs. This assisted to facilitate easy movement and contacts. Numerous visits were made to the maternity centres to interview the nurses as they were always busy attending to patients. It was during the period of waiting to catch the attention of the medical personnel that some of the interviews were conducted for the pregnant women or the new mothers. The respondents interviewed were independently in the waiting room. In addition, proper permission was sought before the interviews.

### **3.6 Ethical Consideration**

Ethical consideration was sought and obtained from Oyo State Ethical Review Committee in November, 2014 (See appendix VI). The consent of the child-bearing women was obtained after providing them with adequate, clear and complete information about the study. Data collected from responses by participants were used only for the purpose of the research. Names of respondents were not provided in the questionnaire while the completed forms were kept in a safe custody. The Interviews was conducted in a friendly atmosphere in the maternal health care centres.

The respondents had the free choice to decide to partake in the study or not. A voluntary consent form was attached to the questionnaire, which anyone who is approached to participate in the study will carefully read through with the help of a research assistant, and willingly decide to participate after understanding all that the study entailed.

### **3.7 Methods of Data Analysis and Hypotheses Testing**

A number of statistical techniques were used to analyze primary data collected from the field. These included frequency distribution, tables, averages and simple percentages. Cross tabulation which is another descriptive statistic was used to analyze salient relationship among variables. The inferential statistics involved the use of Nearest Neighbour Analysis (NNA), Stepwise Multiple Regression, Analysis of variance (ANOVA) and Logistic Regression.

The hypothesis which states that maternal health care facilities are randomly distributed in the study area was ascertained using NNA using ARCGIS 9.2 soft ware. Data on point data or the location of the various maternal health centres was obtained with the aid of global positioning system (GPS). The point data was thereafter transferred into the GIS environment to determine the distribution pattern.

The hypothesis which states that the utilisation of maternal health care services varies significantly among women of child bearing age of 15-49 years in the study area was tested using One-Way Analysis of Variance (ANOVA). In comparing the means of three or more groups to determine whether they differ significantly from one another, one-way ANOVA was used. Its significant function is to estimate the differences between specific groups. The F-test is the most common method used to detect differences among groups in one-way ANOVA, which is based on the assumption that the populations for all samples share a common, but unknown, standard deviation. The variation in the response due to the classification of variables was computed. To test this variation against the residual error to determine the significance of the classification effects. In this hypothesis, the ages of childbearing women was given in intervals such as 15-24years, 25-34years, 35-44years, 45-54years, and <54years; and the level of maternal health utilisation among wards/local government areas was

evaluated. This enabled the researcher to establish if the utilisation of maternal health care services varied among the local government areas or wards.

The level of utilisation of maternal health services is determined by socio-economic, spatial, religious and cultural factors was analyzed using stepwise multiple regression. This approach enabled only the most significant variables that contribute to the variation in the utilisation of maternal health services to be upheld in the model. The stepwise multiple model approach is highly praised for producing an equation with a small number of predictor variables, but with a high multiple  $R^2$ . According to Winarti (2010), this technique is suitable for explanatory and predictive purposes. Through this approach, the predictor variables that influenced the utilisation of maternal health services was retained and included in the regression model. The model is mathematically defined as:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \dots + b_nx_n$$

Where:

Y = Dependent variable (Utilisation of maternal health services by childbearing women)

a = Y-intercept

$b_1 - b_4$  = Regression coefficients

$x_1 - x_4$  = Independent variables ( demographic, cultural and socioeconomic, and spatial factors)

$x_n$  = No. of dependent variables

Selected variables are:

$x_1$  = age of mother birth order (< 25years= 0; >.25years = 1)

$x_2$  = birth order (< two children = 0; > others = 1)

$x_3$  = family size (< three children = 0; > others = 1)

$x_4$  = religion (Christianity and Islam = 1; Others = 0)

$x_5$  = ethnicity ( Yoruba = 1; Others = 0)

$x_6$  = cultural beliefs (accepts MHS = 1; rejects MHS = 0)

$x_7$  = maternal autonomy (husband decides on MHS = 1; Others = 0 )

$x_8$  = maternal educational level (> post secondary = 1; Others = 0

$x_9$  = income (> #40,000 = 0; Others = 1)

$x_{10}$  = occupation (Formal = 1; Informal = 0)



- $x_{11}$  = place of residence (Urban = 1; Rural = 0)
- $x_{12}$  = exposure to mass media (Utilized mass media = 1; not utilized = 0)
- $x_{13}$  = husbands educational level (< post secondary = 1; Others = 0)
- $x_{14}$  = husbands occupation (Formal = 1; Informal = 0)
- $x_{15}$  = cost of obtaining care (< #2,000 = 0; > #2,000 = 1)
- $x_{16}$  = distance from maternal residence in kilometers to health facilities (<5KM = 0; > 5KM = 1)
- $x_{17}$  = mode of transportation (foot trekking = 0; Others = 1)
- $x_{18}$  = time it takes to reach health facilities (< 10minutes = 0 ; Others = 1)

The hypothesis that cost of service, facility accessibility, husband's acceptance of service, distance, quality of service, cultural beliefs, attitude of healthcare provider and previous history of complications are significant barriers to the utilisation of maternal health care services was tested using Logistic Regression.

The logistic regression model is of the form:

$$\text{Logit } \{p(x)\} = \log\{p(x)/1-p(x)\} = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \dots \text{---eqn ( )}$$

Where Logit (p) = log (to base e) of the odds ratio or likelihood ratio that the dependent variable is 1

p = probability of the dependent variable (barriers to the utilisation of maternal health care services; Yes =1, No =0)

$x_1$ - $x_8$  = independent variables which are:

$x_1$  = Cost of service: Responses to the question (Do you consider cost of service a barrier to the utilisation of maternal health care service) were measured as: Yes = 1; otherwise = 0)

$x_2$  = Facility accessibility: Responses to the question (Do you consider facility accessibility a barrier to the utilisation of maternal health care service) measured as: Yes = 1; otherwise = 0

$x_3$  = Husband's acceptance of service: Responses to the question (Do you consider your husband's acceptance of service(s) a barrier to the utilisation of maternal health care services ) were re-classified as: Yes =1; Otherwise = 0)

- $x_4 =$  Distance: Responses to the question (Do you consider distance a barrier to the utilisation of maternal health care services) were measured as: Yes = 1; Otherwise = 0)
- $x_5 =$  Quality of service: Responses to the question (Do you consider quality of service a barrier to the utilisation of maternal health care services) were measured as: Yes =1; Otherwise = 0)
- $x_6 =$  Cultural beliefs: (Do you consider your cultural beliefs a barrier to the utilisation of maternal health care services) were measured as: Yes =1; Otherwise = 0)
- $x_7 =$  Attitude of health care provider : Responses to the question (Do you consider attitude of health care providers a barrier to the utilisation of maternal health care services) were measured as: Yes =1; Otherwise = 0)
- $x_8 =$  Previous history of complications: Responses to the question (Do you consider previous history of complications a barrier to the utilisation of maternal health care services) were measured as: Yes =1; Otherwise =0)

$b_1$ - $b_8$  = Parameter estimate for the independent variables.

The tapes and notes recorded from the key informant interviews were content analysed. The common responses were recognized for each of the issues included in the interview guide used for the respondents. Similarly, divergent responses were identified to determine the variety of beliefs, opinions, knowledge, attitude and behaviour among participants. The responses to each of the issues were summarized and highlighted in the thesis.

## **CHAPTER FOUR**

### **SPATIAL PATTERN OF MATERNAL HEALTH CARE CENTRES IN IBARAPA REGION**

In this chapter, the distribution pattern of healthcare centres in Ibarapa region is examined. The result obtained enables us to know whether the pattern of distribution of healthcare centres in the area is clustered, dispersed or random while the possible reasons for the pattern observed is presented. The analysis is carried out using the Nearest Neighbour Analysis in ArcGIS. As a precursor, the demographic and socio-economic characteristics of respondents are discussed.

#### **4.1 Demographic and Socio-Economic Characteristics of Respondents**

This section is dealing with background factors that are explaining the characteristics of respondents among which include educational background, occupation, marital status, ethnic, income, religion and others. These factors are vital in research as they tend to influence direction of responses to research questions. Table 4.1 shows the demographic and socio-economic characteristics of respondents involved. A total of 659 (93.2%) of the respondents are living together with their husbands in the same household while 28(4.0%) are single parents but not married. This category of respondents is having children out of wed luck. Also, 10(1.4%) are divorced, widowed 5(0.7%) while 5(0.7%) are single parents. 435(61.5%) of the respondents are monogamous family, 246 (34.8%) are in the category of polygamous family type and 26 (3.7 %) are single parents. The indication of the finding is that monogamy family is the most common family type. The ethnic affiliation of women in the study shows that 618 (87.4%) are of Yoruba ethnic group. There are also 26 (3.7%) of Hausa origin while 27 (3.8%) of Igbo ethnic origin. Others 36 (5.1%) are Bini, Itshekiri, Igala, Urhobo and Ijaws.

**Table 4.1: Demographic and Socio-Economic Characteristics of Respondents**

Family type	Freq N= 707	% (100)	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n= 239)	% (100)	Freq(n=227)	% (100)	Freq(n=241)	% (100)
Monogamy	435	61.5	152	63.6	127	55.9	156	64.7
Polygamy	246	34.8	85	35.6	94	41.4	67	27.8
Single parent	26	3.7	2	0.8	6	2.6	18	7.5
<b>Marital status</b>								
Single parent (not married)	28	4.0	11	4.6	4	1.8	13	5.4
Married	659	93.2	223	93.3	221	97.4	215	89.2
Widowed	5	0.7	3	1.3	1	0.4	1	0.4
Divorced	10	1.4	0	0.0	0	0.0	10	4.1
Single parent/separated (married)	5	0.7	2	0.8	1	0.4	2	0.8
<b>Ethnic group (wife)</b>								
Yoruba	618	87.4	177	74.1	210	92.5	231	95.9
Hausa	26	3.7	17	7.1	3	1.3	6	2.5
Igbo	27	3.8	21	8.8	2	0.8	4	1.7
Others	36	5.1	24	10.0	12	5.3	0	0.0
<b>Ethnic group (husband)</b>								
Yoruba	627	88.7	186	77.8	208	91.6	233	96.7
Hausa	25	3.5	15	6.3	4	1.8	6	2.5
Igbo	21	3.0	17	7.1	2	0.9	2	0.8
Others	34	4.8	21	8.8	13	5.7	0	0.0
<b>Religion affiliation (wife)</b>								
African traditional religion	46	6.5	17	7.1	19	8.4	10	4.1
Christianity	348	49.2	104	43.5	116	51.1	128	53.1
Islam	309	43.7	116	48.5	91	40.1	102	42.3
Others	4	0.6	2	0.8	1	0.4	1	0.4
<b>Religion affiliation (husband)</b>								
African traditional religion	55	7.8	24	10.0	21	9.3	10	4.1
Christianity	345	48.8	94	39.3	118	52.0	133	55.2
Islam	305	43.1	119	49.8	88	38.8	107	40.7
Others	2	0.3	2	0.8	0	0.0	0	0.0
<b>Educational qualification (wife)</b>								
No formal education	84	11.9	38	15.9	13	5.7	33	13.7
Primary education	77	10.9	8	3.3	29	12.8	40	16.6
Senior secondary education	244	34.5	88	36.8	78	34.4	78	32.4
Junior secondary education	46	6.5	14	5.9	16	7.0	16	6.6
Technical/vocational education	20	2.8	5	2.1	5	2.2	10	4.1
Diploma/college certificate	127	18.0	41	0.2	50	22.0	36	14.9
Degree certificate	91	12.9	33	13.8	34	15.0	24	10.0
Post graduate certificate	18	2.5	12	5.0	2	0.9	4	1.7
<b>Educational qualification (husband)</b>								
No formal education	83	11.7	36	15.1	15	6.6	32	13.3
Primary education	50	7.1	5	2.1	13	5.7	32	13.3
Senior secondary education	236	33.4	75	31.4	72	31.7	89	36.9
Junior secondary education	14	2.0	9	3.8	2	0.9	3	1.2
Technical/vocational education	43	6.1	10	4.2	19	8.4	14	5.8
Diploma/college certificate	89	12.6	31	12.97	34	15.0	24	10.0
Degree certificate	134	19.0	28	11.7	65	28.6	41	17.0
Post graduate certificate	58	8.2	45	18.8	7	3.1	6	2.5
<b>Occupation (wife)</b>								
House wife	74	10.5	15	6.3	12	5.3	47	19.5
Unemployed	40	5.7	12	5.0	11	4.8	17	7.1
Trader	240	33.9	94	39.3	79	34.8	67	27.8
Farmer	117	16.5	22	9.2	44	19.4	51	21.2
Private sector employer	64	9.1	22	9.2	23	10.1	19	7.9
Artisan	59	8.3	45	18.8	9	4.0	5	2.1
Civil servant	108	15.3	24	10.0	49	21.6	35	14.5
Others	5	0.7	5	2.1	0	0.0	0	0.0
<b>Occupation (husband)</b>								
Unemployed	32	4.5	0	0.0	8	3.5	24	10.0
Trader	161	22.8	45	18.8	39	17.2	77	32.0
Farmer	186	26.3	39	16.3	72	31.7	75	31.1
Private sector employer	88	12.4	24	10.0	43	18.9	21	8.7
Artisan	66	9.3	56	23.4	6	2.6	4	1.7
Civil servant	164	23.2	66	27.6	58	25.6	40	16.6
Others	10	1.4	9	3.8	1	0.4	0	0.0

Source: Author's Analysis, (2015)

These were women who either migrated with their husbands of similar ethnic origins or got married to the Yoruba residents in the study area. Similarly, 627 (88.7%) husbands are Yoruba, 25 (3.5%) Hausa and 21 (3.0%) Igbo. Others 34 (4.8%) are of Bini, Itshekiri, Igala, Urhobo and Ijaws. The trend is that Yoruba women in the study area often and most likely married their tribal men as other ethnic groups Igbo, Hausa, Bini, Igala and Itshekiri women were married to their tribal men. Although there were cases of inter tribal marriages, this is however very rare among the respondents. For example, a respondent put her in view:

*I am Yoruba by ethnic origin. My husband is Igbo from Enugu town. I'm the only woman among six women of my parents that married outside Yoruba. My parents were not happy when I decided to marry Igbo man. It is just a matter of choice (IDI/Trader/Ibarapa East/2015).*

A total of 348 (49.2%) are Christians, 309 (43.7%) are Muslims while 46 (6.5%) practiced African traditional religion. The religion affiliation of the husbands of women shows that 345 (48.8%) belonged to the Christian faith, 305 (43.1%) practiced Islam and 55(7.8%) are affiliated with African religions. The implication of this is that Christianity and Islam represent major belief system in the study area. Also it may be stated that most women in the study area tend to practice religion faith of their husbands. Although some women adopted religion faith different from their husbands, it is however sustained by understanding and negotiation between couples. A respondent is quoted as she said:

*I am a Christian and my husband is a Muslim. Prior to the period we got married, I told my husband that if only marriage that will separate me from Christ, I better call it a quit or not even try it with marriage at all. My husband promised he would allow me to practice my religion. Although sometimes, he wishes I converted, but I do not think that is possible. We have four children. The children are at liberty to choose their faith. It has been peaceful at home based on understanding and agreement (IDI/Civil servant/Ibarapa North/2015).*

In addition, it is obvious that some women were affiliated to African traditional Religion (ATR) as practiced by their husbands. This means that the religion still occupies important role in the lives of people especially in the modern society where Christianity and Islam have dominated. A total of 84 (11.9%) of the women had no formal education. Women with primary school education are 77 (10.9%). Yet, there is a significant proportion of those with primary school education who could not read, write or communicate in English language. There are women 244 (34.5%) with senior secondary education and 46 (6.5%) junior secondary school education. These women are relatively better to communicate in English language. They can read and write to express themselves, though the education status is better for category in the senior secondary education. Similarly, 20 (2.8%) women have technical and vocational education, 127(18.0%) diploma and college certificate and 91(12.9%) university/higher polytechnic education and 18 (2.5%) postgraduate certificates.

The implication of the findings is that 623 (88.1%) of the women seeking maternal health care services have educational qualification of different status. This is a good possibility to allow for efficient use of available health services. The findings of this study is in line with the research of Elo,(1992) in which he asserted that among the maternal attributes, education of women has been found to have the strongest relationship with the utilization of maternal health care services and the significance of maternal education on the use of both pre-birth care and delivery assistance cannot be over-emphasied. This study also confirmed the findings of Caldwell, 1979 and Schultz. 1984, when they opined that the implication of a woman being educated is that educated mothers gain better knowledge and information on modern day health treatments and have more significant ability to create an understanding surrounding certain diseases. It suffices to note that as education empowers women, they have more prominent certainty and capacity in utilizing the present day health care services for themselves and their children.

In like manner, in some societies, particularly in Africa, tradition demands high rates of reproduction. Here the opinion of women in reproductive years may have little influence weighed against intense cultural expectations. Education, especially female literacy is the key to lower fertility. With education comes knowledge of birth control, greater social awareness, more opportunity for employment and a wider choice of

action generally in some high income countries. In addition, religion is an important factor in which some Muslims and Roman Catholic religions oppose birth control.

A further finding to check for the educational qualification of the women's husbands shows that 83 (11.7%) had no formal education. Overall, 624 (88.3%) of the women's husband had educational qualification of different status ranging from primary school to secondary, vocational/technical, college, polytechnic and to university education. This is another reinforcement that may allow for efficient utilisation of maternal health services among the women. On the occupation of respondents, findings showed that 74 (10.5%) were housewives remunerated for their services. This is very peculiar. A respondent in this category said:

*I intend to work. But my husband would not allow me. Besides, my religion is very important. As you can see I am in Islamic pudah (eleha). I take care of my children at home and other home chores or duties. My husband likes it (IDI/Respondent/Ibarapa North/2015).*

There were 40 (5.7%) of the respondents that were unemployed. Women in the study also engaged in trading 240 (33.9%), farming 117 (16.5%), artisans 59 (8.3%), civil servants 108 (15.3%) and others (0.7%) who engaged as cleaners and messengers in offices. Wholesomely, 667 (94.3%) of the women seeking maternal health services were engaged in one thing or the other which brings income. It is expected that this would have influence in the access to and utilisation of the services. At the level of husband occupation, there were overall 675 (95.5%) of the men who engaged in one occupation or the other as source of livelihood to sustain family within which the child bearing women were members. The work of Sharma *et al.*, (2000) is in tandem with the findings of this work that employment can increase women's autonomy and reproductive health status as it increases awareness and provides new ideas, behaviour and opportunities through interaction with other people outside the home and community. Magadi *et al.*, 2000 similarly asserts that the antenatal care visits tend to start earlier for women in paid employment because they are likely to have greater knowledge about pregnancy and childbirth due to freedom of movement outside the household. They also tend to seek information on services available for pregnancy in contrast with women who are not gainfully employed.

#### **4.2 Effects of Socio-economic factors on the Utilisation of Maternal Health services**

The result in Table 4.2 implies that different socio-economic factors (income, age, type of family, marital status, ethnic, religion, education and occupation) significantly influence women utilisation of maternal health care services in the three local government areas is tested using stepwise multiple regression analysis. Socio-economic factors are important aspect of life. They determine life chances and how people access and utilize services. Respondents in this study were identified by some socio-economic characteristics that either influence their utilisation of health services or otherwise. The result shows that in Ibarapa Central, cultural beliefs is retained and significantly influences the utilisation of maternal health services ( $F = 91.726, p < 0.05$ ). It also explains 27.9 per cent of the variation in the utilisation of maternal health services in the area. In Ibarapa East, cultural beliefs, wife's ethnicity and wife's education have significant influence on utilisation of maternal health services. The three retained predictors explain 12.1 per cent of the variation in the utilisation of maternal health services in the area. Looking at the standardized regression coefficient, it shows that wife's ethnicity contributes most to the utilisation of maternal health services followed closely by cultural beliefs. In addition, in Ibarapa North, marital status is retained and contributes 11.5% to the utilisation of maternal health services. Marital status is shown to significantly influence the utilisation of maternal health services in the area. The results obtained therefore show that different socio-economic factors account for the utilisation of maternal health services and this is apparent as the three LGAs vary in socio-economic characteristics. In all, the result shows that cultural beliefs and marital status exercise significant influence on the utilisation of maternal health services in Ibarapa Central and Ibarapa North respectively, while in Ibarapa East, cultural factor, wife's ethnicity and wife's education have considerable influence on utilisation of maternal health services. . Hence, the multiple regression equations for the obtained results are defined as follows:



**Table 4.2: Summary of stepwise multiple regression result**

Predictor variables	Coefficients		t-value	R <sup>2</sup>
	Unstandardized Coefficient	Standardized Coefficient		
<b>Ibarapa Central</b>				
Cultural beliefs	0.949	0.528	9.577*	0.279
Intercept = -0.016; F-ratio: 91.726*				
<b>Ibarapa East</b>				
Cultural beliefs	0.566	0.241	3.519*	0.121
Wife's ethnicity	0.480	0.311	3.087*	
Wife's education	0.332	0.215	2.141*	
Intercept = 0.148 ; <b>F-ratio:</b> 8.927*				
<b>Ibarapa North</b>				
Marital status	0.123	0.123	2.035*	0.115
Intercept = 0.786 F-ratio: 4.142*				

Source: Field Survey, 2015; \*Significant at 5% alpha level

For Ibarapa Central:

$$Y = -0.016 + 0.949x_1 \dots\dots\dots\text{eqn (1)}$$

Where:

Y= Utilisation of maternal health services

$x_1$ =Cultural beliefs

For Ibarapa East:

$$Y = 0.148 + 0.556x_1 + 0.480x_2 + 0.332x_3 \dots\dots\dots\text{eqn (2)}$$

Where:

Y= Utilisation of maternal health services

$x_1$  =Cultural beliefs

$x_2$  = Wife's ethnicity

$x_3$  = Wife's education

For Ibarapa North:

$$Y = .786 + 0.123x_1 \dots\dots\dots\text{eqn (3)}$$

Where:

Y = Utilisation of maternal health services

$x_1$  = Marital status

**Table 4.3: Age and Income Characteristics of Respondents**

	Freq N= 707	% (100)	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n=239)	%(100)	Freq(n=227)	%(100)	Freq(n=241)	%(100)
<b>Maternal Age (in years)</b>								
15-24yrs	221	31.3	94	39.3	63	27.8	64	26.6
25-34yrs	429	46.5	122	51.0	150	66.1	157	65.1
35-44yrs	53	21.6	22	9.2	14	6.1	17	7.1
45-54yrs	4	0.6	1	0.4	0	0	3	1.2
>54yrs	0	0	0	0	0	0	0	0
<b>Monthly Income in Naira (husband)</b>								
Less than N20,000	406	50.9	96	40.2	152	67.0	158	79.6
20,000-40000	200	30.7	73	30.5	57	25.1	70	29.0
40,001-60,000	49	11.0	26	10.9	12	5.3	11	4.6
60,001-80,000	31	4.4	26	10.9	3	1.3	2	0.8
80,001-100,000	17	2.4	15	6.3	2	0.9	0	0
Above 100,001	4	0.6	3	1.2	1	0.4	0	0
<b>Monthly Income in Naira (wife)</b>								
Less than N20,000	636	90.0	195	81.6	226	99.6	215	89.2
20,000-40000	53	7.5	34	14.2	1	0.4	18	7.5
40,001-60,000	14	1.9	6	2.5	0	0	8	3.3
60,001-80,000	4	0.6	4	1.7	0	0	0	0
80,001-100,000	0	0	0	0	0	0	0	0
Above 100,001	0	0	0	0	0	0	0	0

**Source: Author's Analysis, 2015**

Table 4.3, shows the age distribution of the respondents between 25-34 age range 329 (46.5%) represents the most active reproductive age of women in the study area. Also reproduction is common among women in the age range 45-54, 221 (31.3%) and 35-44, 153 (21.6%). Reproduction occurs likewise in the age range 41-45, 4 (0.6%) and 46-50 (0.3%), though the occurrence was in rare cases among the women. The work of Raghupathy, (1996) supports the findings of this work in which he stated that older and youthful women have diverse experiences and age impacts their behaviour on seeking health care. Similarly, a higher number of younger women will probably use present day health care facilities than older women, since they probably have more exposure to knowledge of modern health, more access to education while older women have accumulated knowledge based on experience on maternal health care and in this manner liable to have more certainty about pregnancy and labor or they might be less comfortable with current medication and more hesitant to exploit accessible services; as a result, they may give less significance to get institutional care.

The analysis of respondents' income shows that 636 (90.0%) of the women seeking maternal health services are having monthly income less than N20, 000. This percentage represents more than three quarter of the respondents. The implication is that majority of the women could not afford expensive health services. At the same time, location of health facility is important because distance may discourage maternal women to seek health due to cost of transportation and income constraints. Similarly, 406 (50.9%) of the women's husbands earn income less than N20, 000. This may subsidize the income of the women seeking maternal services in the study area. Although there is general low income level in the study area, the most important thing is that both child bearing women and their husbands had source of income which put women seeking maternal health on good stead to utilize the facility for safe delivery.

### **4.3 Variation in the Utilisation of Maternal Health Care Services among Women of Child Bearing Age**

The hypothesis which states that there is a significant variation in the utilisation of maternal health care services (orthodox and non-orthodox) among the women of child bearing age (15-49 years) in the study area was tested using One-Way Analysis of Variance (ANOVA). The result obtained is shown in Table 4.4. The relationship between variables in this context is to check the difference between women of child bearing age range and their utilisation of maternal care services. This was important because attitude to maternal care services appeared different especially among women in the rural areas of Ibarapa Region.

**Table 4.4: ANOVA Test of Variance in the Utilisation of Maternal Health**

Age	Sum of square	Df	Mean square	F value	Significance
Between group	5.399	29	0.186	2.424*	0.001
Within group	51.987	677	0.077		
Total	57.386	706			

\*Significant at 5% alpha level

**Source: Author's Analysis, 2015.**

The findings in the Table above show that there is significant difference between utilisation of maternal care services and age of women in Ibarapa region of Oyo state seeking health care in the facilities. The anova test showed ( $F=2.424$ ,  $P=0.000<5\%$ ). The  $f$  test of relationship is positive. This means there is difference between women of reproductive age groups and the way they seek and utilize maternal care services either orthodox or non orthodox. Also in the table, the sum of square between group is 5.399 and within group is 51.987. The variance i.e. means square between groups is 0.186 and within group is 0.077. The variance in this context describes homogeneity of group and the smaller the value the more homogeneous the group. Therefore, the value, 0.077 described a more homogeneity of the group than the value 0.186 between group. The interpretation of the statistics is that women of the same reproductive age range will seek similar pattern of maternal services, orthodox or non orthodox as the case may be than women of different reproductive age group.

The position here is that women of the Ibarapa region of Oyo state, in their early child bearing experience often utilized orthodox method to deliver their first two children. However, as the desire for number of children increases, these women opted for orthodox or non orthodox method. The increase in the number of children for women also means increase in their ages. Women of older ages in Ibarapa Region patronized Traditional Birth Attendants (TBAs) than those of younger ages. The experience in the field work showed that those that patronized TBAs resided in most parts of the rural areas of Ibarapa Region. At the same time, these women had had at least three children. The income and educational qualification of women that patronized non orthodox were low and they appeared older in age. Therefore it may be stated that utilisation of maternal care services either orthodox or non orthodox varies significantly between age groups.

#### **4.4 Distributional Pattern for the Health care Centres**

The Pattern of distribution for the Health care centres in Ibarapa region is determined using Nearest Neighbour Analysis in ArcGIS (see Figure 4.1). The analysis requires the determination of observed distance with expected distance in conjunction with the area of study.

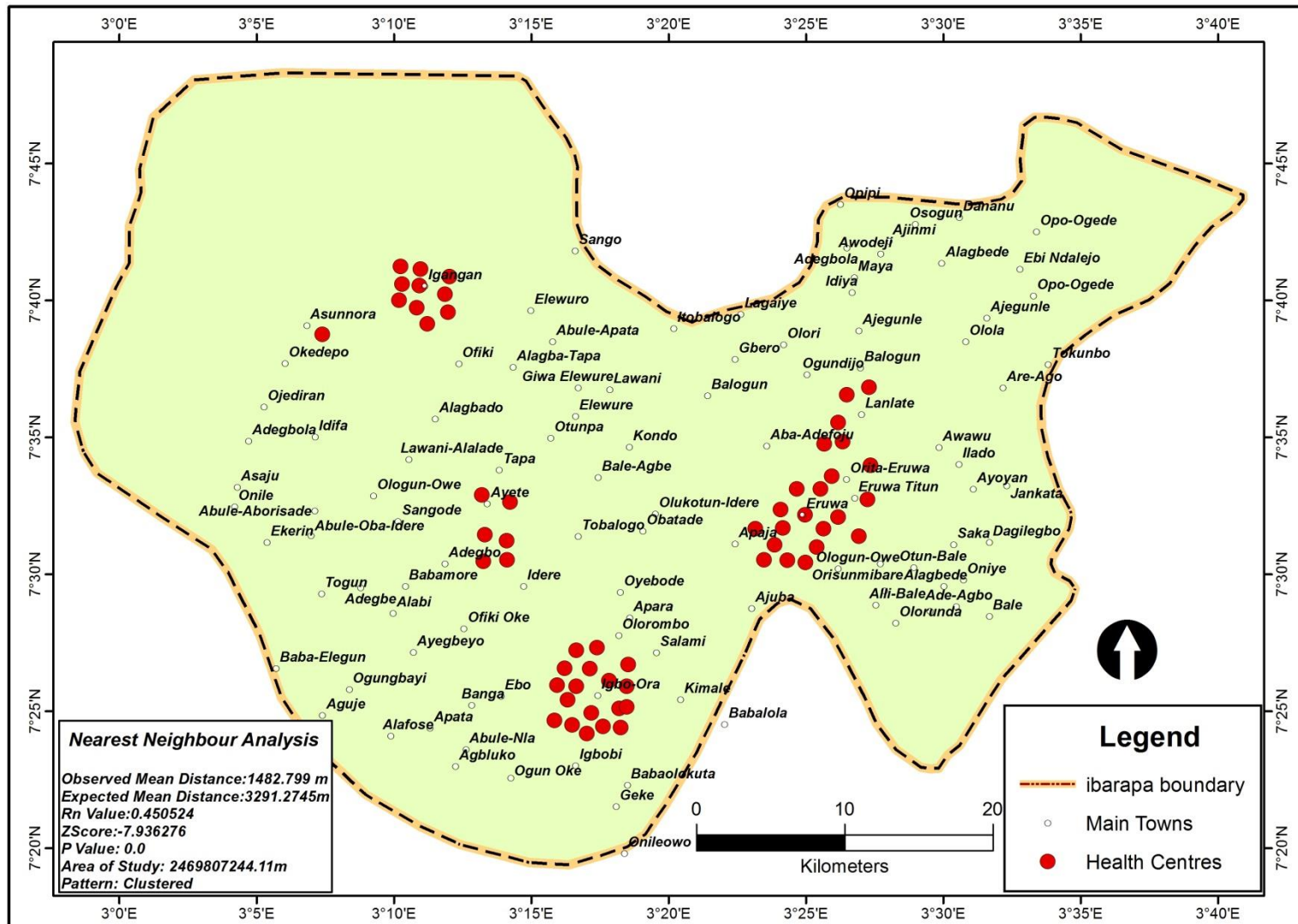


Figure 4.1: Distributional Pattern of Maternal Health centres in Ibarapa Region.  
 Source: Author's Analysis, 2015.



**Observed distance** = 1482.799369  
**Expected distance** = 3291.276288  
**Area of study** = 2469809900.0 square metres  
**NNA Ratio** = 0.450524  
**z-score** = -7.936279  
**p-value** = 0.000000

The Average NNA calculates the distance between each feature centroid and its nearest neighbor's centroid location. Afterwards get the mean of all these nearest neighbor distances. If the average distance is small amount lesser than the average for a hypothetical random distribution, then distribution of the features being investigated is considered *clustered*. If the average distance is greater than a hypothetical random distribution, the features are considered *dispersed*.

The index is expressed as the ratio of the observed distance divided by the expected distance (expected distance is based on a hypothetical random distribution with the same number of features covering the same total area).

If the index (Average Nearest Neighbor ratio) is less than 1, the pattern exhibits clustering. If the index is greater than 1, the trend is toward dispersion. The **NNA Ratio**=0.450524 clearly shows that the pattern exhibits a clustered pattern ( $R_n < 1$ ). A further analysis to test the degree of randomness as shown by the NNA value is established with the z-score statistics (z-score=-7.936279) at 0.10 significant level which is found to be significant.

Z-scores are simply standard deviations, while the p-value is a numerical approximation of the area under the curve for a known distribution, limited by the test statistic. The p-value is a probability. For the pattern analysis tools, it is the probability that the observed spatial pattern is created by some random process. When the p-value is very small, it means it is very unlikely (small probability) that the observed spatial pattern is the result of random processes, so you can reject the null hypothesis. Both z-scores and p-values are associated with the standard normal distribution for this analysis as shown in Figure 4.1. The result of the analysis shows a clustering pattern but also revealed that the clustering pattern is tending more to cluster distribution than random pattern.

## **CHAPTER FIVE**

### **AVAILABILITY AND ACCESSIBILITY TO MATERNAL HEALTH CARE SERVICES**

Maternal health services are indispensable in every community of living. The utilisation of such services varies a lot from community to community. Critically speaking, utilisation of health facility depends on whether the facility is available. It also depends on whether the facility is accessible to users. The discussion that follows in this section will focus on the critical thinking raised above.

#### **5.1 Utilisation of Maternal Healthcare Facilities**

Table 5.1 reveals the responses of respondents on the utilisation of healthcare services. The respondents were asked to indicate their utilisation of maternal healthcare services in their locations. Findings show that the respondents utilized maternal healthcare services. The utilisation of maternal healthcare services varied from 216 (95.2%) Ibarapa East, 224 (93.7%) Ibarapa Central and 220 (91.3%) Ibarapa North.

**Table 5.1: Utilisation of Maternal Healthcare by Respondents**

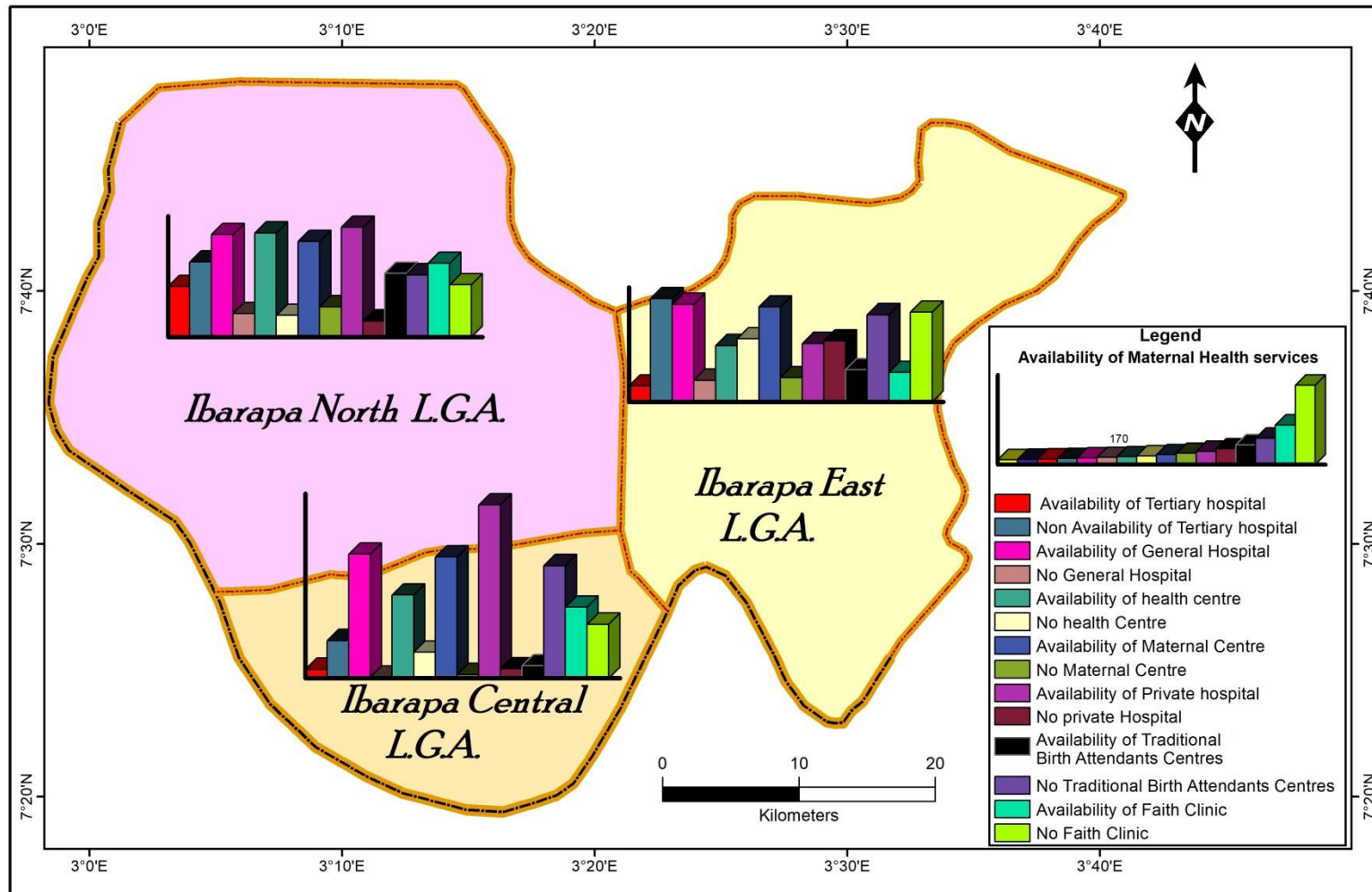
LGAs	Utilisation		Non-Utilisation	
	Frequency	Percentage	Frequency	Percentage
Ibarapa Central	224	93.7%	15	6.3%
Ibarapa East	216	95.2%	11	4.8%
Ibarapa North	220	91.3%	21	8.7%

Source: Authors Analysis, 2015.

## 5.2 Availability of Maternal Health Facilities

The findings in Fig 5.1, on the availability of maternal healthcare facilities show that, 144 (20.4%) of the respondents said tertiary hospital provided health services in their locations. Observation of the study area showed that the tertiary hospital which offered health services in some of these locations was a liaison centre of Oyo State tertiary hospital located in Ibarapa East. Basically speaking, Ibarapa East is the most developed of the three Ibarapa zones. Furthermore, 619 (87.6%) said there was General Hospital in the area. Again, there was only one General Hospital located in each of the of the Ibarapa local government. Respondents in the area could identify health centres/cottage hospital 465 (65.8%), maternity centres 596 (84.3%), private hospitals 542 (76.7%), traditional birth attendants' centres 500 (70.3%) and faith clinics 333 (47.1%) which offered maternal health care services to users. At the same time, the availability of maternity care services varied in the study area as in shown in the table. The situation is worse in the rural areas of Ibarapa. This point is buttressed when a respondent said:

*.....Only one doctor is employed by the LGA. The doctor acts as primary health care coordinator in the whole local government. The doctor supervises national immunization programme, formulate and implement primary health care policies for the LGA. This is not good in an ideal health service delivery system. (FGD/Civil Servant/Ibarapa North/2015).*



**Figure 5.1: Perception by Respondents on the Availability of Maternal Healthcare Facilities**  
Source: Author's Analysis, 2015.

In a related response, a discussant was very emotional when she said:

*The only General Hospital in the local government does not have scanning and ultra-sound machines. Only privately owned laboratories in this area provide the service. Water is also scarce in this region. Boreholes in the hospital are no longer functioning due to lack of proper maintenance (FGD/Civil Servant/Ibarapa North/2015).*

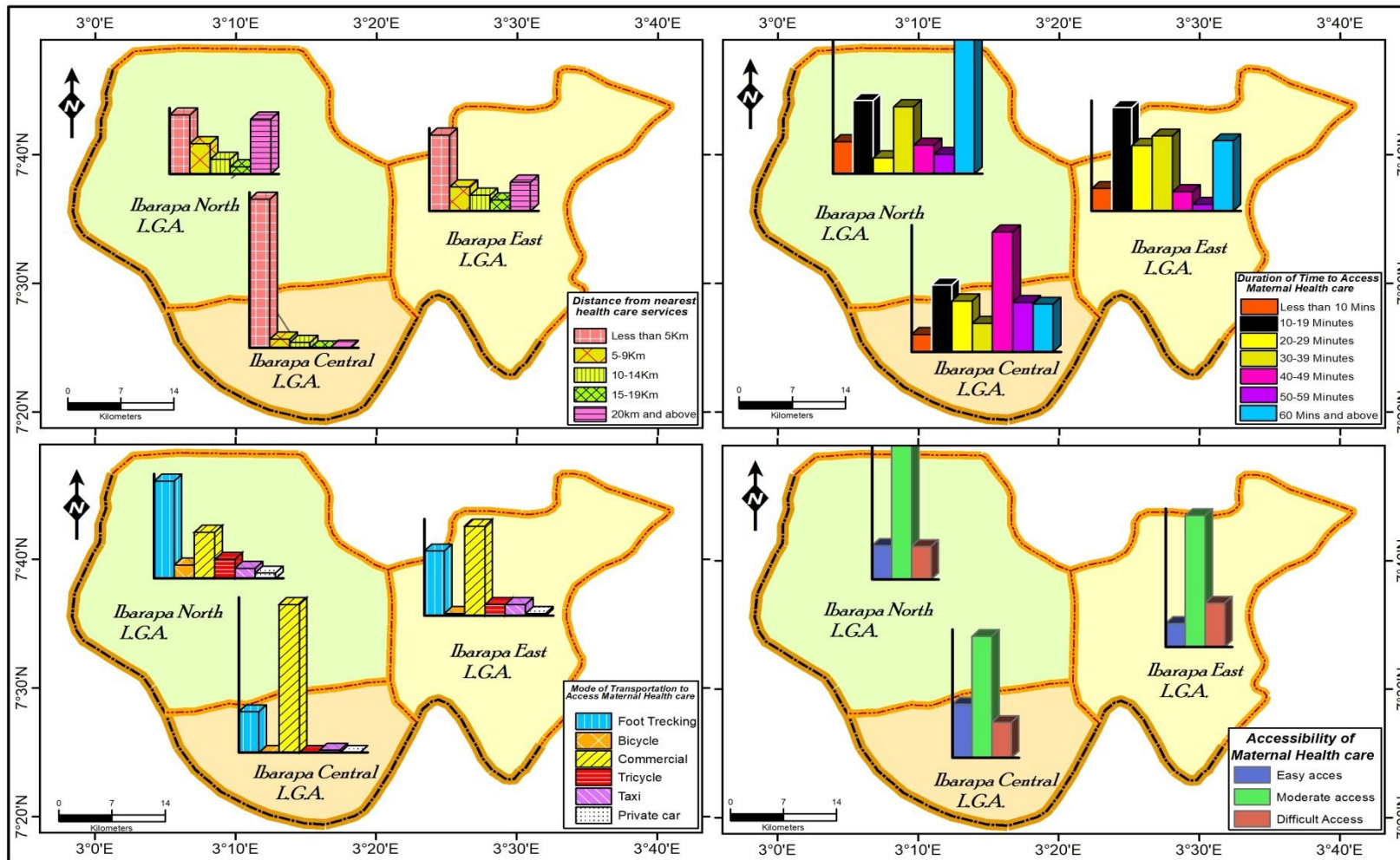
The experience of respondents in the study provides an insight into spatial problem regarding availability of health care services in Ibarapa region. This assertion is further understood when a female teacher said:

*The road network connecting the seven major towns in Ibarapa (Lanlate, Eruwa, Igboora, Idere, Ayete, Tapa and Igangan) are fairly okay (tarred). Whereas the road network in the rural areas are very bad, difficult to access, untarred, especially during rainy season where rivers usually over shut their banks collapsing the bridges that connect one community to another. As you move from Ibarapa east development decreases to Ibarapa north and as you move from Ibarapa north development increases to Ibarapa east (FGD/Civil Servant/Ibarapa Central/Ibadan).*

The situation above helps to understand some of the reasons the provision of maternal health services may remain at low coverage especially for the rural areas. Nnebue *et al.*, (2014), examined the difficulties experienced in accessing of maternal health facilities or care as bad state of roads, lack of transportation, lack of equipment and supplies and unavailability of drugs which is in line with the findings of the study and account for the under utilisation and availability of these facilities.

### **5.3 Accessibility to Maternal Healthcare Services**

In Figure 5.2, which shows ranges in distance from which accessibility to maternal health services is possible shows that 414(58.6%) of the respondents travel less than five kilometers from their residence to access the services. Similarly, some respondents accessed maternal services covering distance 5-9 kilometres 92(13.0%), 10-14kilometres 52(7.4%), and 15-19 kilometres 26(3.7%). At the same time, it takes 20kilometres and above 123 (17.3%) for some respondents to access maternal services. In the discussion with the respondents, some health seekers opened up on the frustration they encounter in the location. A pregnant woman who lives in one of the remote areas said:



**Figure 5.2: Accessibility of Maternal Health Services.**

Source: Author's Analysis, 2015.

*It is a difficult task to access the facility. Transportation by taxi cost at least N600 to and from the facility. My house is very far. It may be difficult to walk the distance. Many times we do not even see commercial transport to convey us. As you can see I'm pregnant. I'm close to delivery date. It is risky to climb commercial motorcycle. It is not just easy for me (FGD/Ibarapa East/Ibadan/2015).*

In a similar view, a civil servant from one of the local government areas in the Ibarapa area said:

*In Ibarapa region, there is at least one maternity centre in each ward compared to only one general hospital in each LGA (Ibarapa North- Government hospital at Ayete. Ibarapa Central- Comprehensive Hospital, Igboora. Ibarapa East- Oyo State General Hospital Eruwa and Oyo State Government Hospital Lanlate (FGD/Ibarapa East/2015).*

The number of hospitals available in the area is responsible for some of the difficulties encountered by health seekers in accessing the facility. The duration of time that it takes health seekers to access facility in the study area differs. Some 45 (6.4%) of the respondents could access facility in less than 10 minutes. It takes others 10-19 minutes 153 (21.6%), 20-29 minutes 83 (11.7%), 30-39 minutes 107 (15.1%) and 40-49 minutes 105 (14.9%) to access facility in their locations. At the same time, some 47(6.6%) of the respondents would take 50-59 minutes and 60 minutes and above 167 (23.6%) to access the facility. WHO's standard for accessibility to health facility stipulates that citizen should not cover more than 100 meters in less than 20 minutes to access good quality of health especially for maternal health services. Looking at the findings therefore, 509 (72.0%) of the respondents cover at least twenty minutes and above to access the nearest facility. This calls for serious concern and fear that maternal health suffers especially in the context of the study. To buttress the position, a respondent said:

*The distance I covered to this facility is just too far. The effect is enormous on my body. I used to have body pains, dizziness and headache as a result of walking the distance when sometimes I could not find public transport (FGD/Ibarapa Central/2015).*



Another respondent said:

*I had experienced miscarriage before when I used to walk long distance to the hospital. The hospital is far from our area. We appeal to government to establish maternity hospital close to people. The hospital should also be equipped with qualified doctors and nurses as we used to have it in General Hospitals. You know it is not good to patronize quacks (FGD/Ibarapa East/2015).*

Access to maternal health facility in the study area was made possible by means of bicycle 20 (2.8%), commercial motorcycle 335 (50.2%), tricycle 38 (5.4%), foot trekking 254 (35.9%) and taxi 30 (4.2%). While some respondents 10 (1.4%) drove in their private cars/vehicles to access the facility. When respondents were asked to rank the accessibility of nearest maternal facility from their homes, 127 (18.0%) said it was easy to access, while others ranked it as moderate accessibility 452 (63.9%) and difficult accessibility 128 (18.1%). Yet, there was variation in accessibility in the study area. In this case, 39 (16.2%) could easily access facility in Ibarapa North, while 61 (25.1%) and 27 (11.1%) could easily access health facility in Ibarapa Central and Ibarapa East respectively. Further findings among discussants opened up yet another dimension of understanding in this context. A discussant was quoted when she said:

*...most residents in Ibarapa suffered from bad roads. The worst hit of the problem is the new housing developing site where there is influx of people. These areas do not have open access road that could allow free flow of transport....yes of course; the reliable maternity hospitals are located far away in the heart of the town. People here covered many kilometers and sometimes hours before they could access the facility (FGD/Ibarapa East/2015).*

It is therefore expected that government should open up accessible roads in many parts of Ibarapa zones, that may improve accessibility to maternal health care services. The findings of this study confirms the work of Bredesen (2013), who maintained that lack of educational resources, distance, cost of transportation, cultural, religious, and family influences all had an effect on women utilizing healthcare services. Similarly, findings of the present study is in support of the work of Yiran *et al.*, (2014) who identified that factors affecting accessibility of Maternal Health services as geographical accessibility, financial accessibility, acceptability, constant shortage of medicines in

the hospitals and many others which corroborates the study. The result is consistent with Wilunda *et al.*, (2015), they indicated that, there is the necessity to increase the availability and the accessibility of skilled birth care, address the low utilisation of maternal services and improve the quality of care rendered to reduce maternal and newborn morbidity and mortality.

#### **5.4 Preference in the Utilisation of Maternal Health Care Facilities**

Maternal health care facilities vary in type and operators. It also varies in the perception of effectiveness among users. Basically speaking, in Ibarapa region of Oyo state, there are various forms of facilities available which offered maternal services to women. The findings in the subsequent tables offer explanation of preference in the utilisation of maternal health care facilities among respondents.

##### **5.4.1 Preference in the Utilisation of Maternal Healthcare Services**

The findings in Table 5.2 show some responses that selected health seekers in Ibarapa region had for orthodox medicine as source of maternal care services. In this case, 569 (80.0%) of the respondents said orthodox health services constituted their main choice of utilisation in seeking health services. Others sometimes 51 (7.2%) and rarely 46 (6.5%) seek health in the orthodox system. The variation in the study area shows that there were 186 (77.2%) in Ibarapa North, Ibarapa Central 216 (90.4%), and Ibarapa East 167 (73.6%) that often utilized orthodox health services. In traditional medicine, 118 (16.7%) often utilised the health services, while others rarely 337 (47.7%) and sometimes 91 (12.9%) utilised the health services. On the aspect of faith clinic services, 25.9% of the respondents often utilized the services and 45 (6.4%) sometimes utilized it. At the same time, 362 (51.2%) rarely took preference in the utilisation of faith clinic. There was variation in the utilisation of traditional medicine and faith clinic in Ibarapa region. In Ibarapa North, 28 (11.6%) often utilized traditional medicine, while 57 (23.8%) in the central and 33 (14.5%) in the east of Ibarapa often utilized traditional medicine. The preference for TBAs shows that 40 (5.7%) often utilized it. There were 72 (10.2%) and 506 (71.6%) that rarely and sometimes utilised the services respectively. Yet variation also existed in the utilisation of TBAs in the Ibarapa area as shown in the table. A respondent was quoted when she said:

**Table 5.2: Preference in the Utilisation of Maternal Healthcare Services of Respondents**

	Freq N= 707	% (100)	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n=239)	% (100)	Freq(n=227)	% (100)	Freq(n=241)	% (100)
<b>Utilisation of orthodox medicine</b>								
Frequent	569	80.0	216	90.3	167	73.6	186	77.2
Sometimes	51	7.2	3	1.3	21	9.3	22	9.1
Rarely	46	6.5	8	3.3	15	6.6	28	11.6
Undecided	41	5.8	12	5.2	24	10.5	5	2.1
<b>Utilisation of traditional medicine</b>								
Frequent	118	16.7	57	23.8	33	14.5	28	11.6
Sometimes	91	12.9	12	5.0	36	15.9	113	46.9
Rarely	337	47.7	66	27.6	6	2.6	19	7.9
Undecided	161	22.8	104	43.6	152	67.0	81	33.6
<b>Utilisation of faith clinic</b>								
Frequent	183	25.9	73	32.7	26	11.5	84	34.9
Sometimes	45	6.4	112	48.9	36	15.9	29	12.0
Rarely	362	51.2	52	21.8	17	7.5	26	10.8
Undecided	117	16.5	2	0.8	148	65.2	102	42.3
<b>Utilisation of TBAs</b>								
Frequent	40	5.7	20	8.4	18	7.9	2	0.8
Sometimes	72	10.2	1	0.4	11	4.8	104	43.2
Rarely	506	71.6	213	89.1	187	82.5	62	25.7
Undecided	89	12.6	5	2.1	11	4.8	73	30.3
<b>Utilisation of both orthodox and traditional medicine</b>								
Frequent	144	20.4	39	16.3	16	7.0	89	36.9
Sometimes	61	8.6	108	45.2	189	83.3	95	39.4
Rarely	392	55.4	51	21.3	3	8.4	50	20.7
Undecided	110	15.6	41	17.2	19	1.3	7	2.9
<b>Utilisation of faith clinic and traditional</b>								
Frequent	79	11.2	0	0.0	18	7.9	61	25.3
Sometimes	83	11.7	195	81.6	193	85.0	102	42.3
Rarely	490	69.3	42	17.6	13	5.7	68	28.2
Undecided	55	7.8	2	0.8	3	1.3	10	4.1
<b>Effectiveness of choice of health care services</b>								
Very effective	266	37.6	74	30.9	101	44.6	91	37.8
Effective	233	33.0	60	25.1	84	37.0	90	37.3
Ineffective	167	23.6	67	28.0	42	18.5	58	24.0
Very ineffective	41	5.8	39	16.3	0	0.0	2	0.8
<b>Decision about maternal care services</b>								
Husband	520	73.6	203	84.9	168	74.0	149	61.8
Woman	74	10.5	34	14.3	25	11.0	15	6.2
Extended family	84	11.9	2	0.8	19	8.4	63	26.2
Religious leaders	29	4.1	0	0	15	6.6	14	5.8
<b>My belief system support alternative medicine</b>								
Yes	288	40.7	156	65.3	48	24.2	84	31.1
No	419	59.3	83	34.7	150	75.8	186	68.9
<b>Utilisation of modern health services</b>								
Yes	616	87.1	203	84.9	169	85.4	244	90.4
No	91	12.8	36	15.1	28	14.1	26	90.6
<b>Level of utilisation of modern health care services</b>								
High	209	29.6	69	28.9	32	16.2	108	44.8
Moderate	152	21.5	114	47.7	18	9.1	20	8.3
Low	330	46.7	56	23.4	119	60.1	100	41.5
Undecided	16	2.3	0	0	29	14.7	13	5.4
<b>Perception of modern of health services</b>								
Beneficial	627	88.7	237	99.2	186	81.9	204	84.7
Wasteful	55	7.8	2	0.8	37	16.3	16	6.6
Indifferent	25	3.5	0	0	4	1.8	21	8.7
<b>Modern health services are essential for women</b>								
Yes	684	96.7	239	100.0	217	95.6	228	94.6
No	23	3.3	0	0	10	4.4	13	5.4
<b>Utilisation of modern health services are beneficial</b>								
Yes	639	90.4	227	95.0	197	86.8	215	89.2
No	68	9.6	12	5.0	30	13.2	26	10.8

Source: Author's Analysis, 2015.

*You see let me say this. I delivered my first child in TBA. It is not that my husband does not have money to prefer orthodox facility. But we believed so much in the capacity of TBAs to deliver foetus or infant. It is about your belief. Even if you patronized orthodox, you still don't believed in it, there may be problem (FGD/Ibarapa North/2015).*

Further investigation among discussants regarding their preference in the utilisation of maternal services reveals additional information. A respondent who utilizes orthodox maternal health care said:

*...ability to pay in orthodox hospital is low. In most government hospitals in this area, pregnant women or those who came for postnatal were expected to pay for some materials which should be the responsibility of the hospital to provide them. Ideally the services are meant to be according to what we hear on radio and television. Government is expected to provide materials needed for delivery such as dettol, detergent, izar mentholated spirit and so on.... The money collected in the hospital was used to buy these delevry materials. There are other charges we pay in the hospital that sometimes discouraged one from patronizing the service (FGD/Ibarapa Central/2015).*

In a similar view, a respondent who was closed to her delivery date said:

*...private hospitals in Ibarapa like the ones I know collect between ₦60,000 and ₦80,000 for caesarian section. For normal delivery, the price is between ₦20,000 and ₦30,000. This is just very high (FGD/Ibarapa East/2015).*

Again a respondent who shared similar view with the above stated when she said:

*Faith clinic hospitals collected between N1000 and N1500 for delivery. Pregnant women were made to sing and pray before the routine antenatal activities are done. In cases of complications, they refer the women to either state or private hospitals nearby (FGD/Ibarapa Central/2015).*

Looking at the words above, it will be submitted that preference in the utilisation of maternal health care services is determined by cost of services in most cases. Basically speaking, findings on income of most respondents in Ibarapa showed that income is on the average with majority of the population engaged in farming, trading and artisans. It is therefore expected that these people would seek services in places that offered cheap

prices no matter the circumstances. As a buttress to the point above, a medical worker in one of the government hospitals said:

*Most maternity homes in this area have no trained doctors or nurses. Only community health workers were available who could not handle complications in pregnant women (FGD/Ibarapa East/2015).*

The preference of utilisation therefore contributes to quality of maternal health services that women receive in their health seeking action. Furthermore, 144 (20.4%) of the respondents often utilized both orthodox and traditional medicine. There were 61(8.6%) and 392 (55.4%) respectively that rarely and sometimes combined both orthodox and traditional medicine as source of maternal health services. There were 79 (11.2%) that often combined faith clinic and traditional medicine. Similarly, 83(11.7%) rarely combined the above services and 490 (69.3%) would sometimes combine faith clinic and traditional medicine. Some reasons were mentioned by respondents which simply defined their preference of utilisation. This consisted of facilities available (10.9%), attitude of health workers (2.7%), cleanliness of environment (0.1%), effectiveness of service (4.4%) and low cost (3.3%). Others cited complication (1.3%), prompt service (6.9%), proper care (0.4%), religious belief (0.1%) and schedule of maternal care service (2.1%). Respondents ranked the effectiveness in their preference of utilisation of maternal facility. In this case, 266 (37.6%) rated very effective, 233 (33.0%) said it is effective and 167 (23.6%) ranked facility ineffective. The inference here is that 499 (70.6%) of the respondents rated the facility as effective whether it is orthodox or traditional medicine. There was variation in the effectiveness of facility in the Ibarapa area as shown in the table. Major decision of maternal health seeking behaviour was taken by husband 520 (73.6%), woman seeking health 74 (10.5%), extended family 84 (11.9%) and religious leaders 29 (4.1%). The inference here is that man continues to dominate major health decision of the family. This has implication for the preference of utilisation of maternal health services.

Furthermore, when respondents were asked to indicate whether their belief system supported utilisation of alternative medicine or otherwise, 288 (40.7%) said their religion did not forbid alternative medicine. At the same time, 419 (59.3%) of the respondents maintained that alternative medicine is forbidden by their religion. Those

that utilized alternative medicine for maternal care services cited reasons that ranged from efficacy of the medicine (1.8%) to failure of orthodox medicine (3.3%), low cost (10.0%) and low risk (10.0%). This suggests that traditional medicine will continue to remain relevant in as much as it satisfies the needs of the users. Looking at the proportion of respondents that patronized traditional medicine, TBAs in Ibarapa region, in fact remains the medical alternative that is relevant and effective to users especially in the context of maternal services. It is therefore expected that relevant agencies of government should regulate the system to promote standard and safety.

In the findings also, 616 (87.1%) of the respondents said they utilised modern health care services or otherwise orthodox medicine. Those that utilised orthodox medicine rated their level of utilisation as high 209(29.6%), moderate 152 (21.5%) and low 330 (46.7%). Specifically, some respondents that rated their utilisation of orthodox medicine as low gave reasons that ranged from distance, to cost, availability of personnel, transportation barrier and husband decision. One of the respondents was quoted when she said:

*Women are not well educated and informed on how to seek proper care. This is caused by poverty. Some pregnant women were malnourished because of inadequate foods that supply nutrition. In this place people consume mainly carbohydrate foods with very little protein (FGD/Ibarapa East/2015).*

Another respondent said:

*I live far away from the hospital. It took me some two hours to get here on every clinic appointment day. It is just that our roads are bad. Commercial vehicles do not want to come. Even to get okada commercial motorcycle is hard. Cost of transport is just high (FGD/Ibarapa Central/2015).*

On a similar note, a pregnant woman in the study said:

*I'm a trader in yam flower (elubo). There is no much gain. Every time I visit the hospital was sponsored by my husband. So if my husband said there is no money, nothing I can do. Besides my husband has the final say about my health decision (FGD/Ibarapa East/2015).*

The statement above could help us to understand some of the reasons that accounted for low patronage of orthodox medicine despite the reliability of the system. It is true that some pregnant women were willing to patronize orthodox medicine especially in the study area, however distance, cost, location of facility and husband decision remained the bottleneck. This suggests major reason some pregnant women relied on traditional alternative, TBAs and faith clinic to provide maternal services which in some cases may not guarantee safety in time of complications. Some 672 (88.7%) of the respondents perceived orthodox medicine as beneficial. At the same time, 55 (7.8%) said modern medicine is wasteful. A look at the views of some respondents throws some of light of understanding. A respondent put his thoughts thus:

*Faith clinic based collected between N1000 and N1500 for delivery. I delivered my three babies in Redeemed Church Maternity. The environment is clean and neat. The iya abiye (midwives) in the church are friendly and very kind to pregnant women. You will feel comfortable and relaxed. It is not like in government hospitals where nurses are not friendly and sometimes cost of service is exorbitant (FGD/Ibarapa East/2015).*

In a related view, a respondent said:

*...he is a well known traditional medicine man and the only one doing it well in Igbo-ora. He made use of mainly herbs, leaves and incantation to do this job. The healing centre provided antenatal and postnatal care. The centre also treated infertility (FGD/Ibarapa Central/2015).*

Looking at the views above, it is clear that some respondents felt what they could get in orthodox service for maternal health could as well be provided in the traditional and faith clinic alternative. At the same time cost of service in many part of alternative medicine was affordable and easily accessible. Therefore there was little or no need to patronize orthodox medicine. However, in another position of explanation, findings have shown that majority of the women patronized modern medicine. Yet some factors informed their decision. In this case, a respondent said:

*There was a time I lost my sister to ignorance of patronizing TBAs centres. She was pregnant and close to delivery. Unfortunate she bled seriously after during and after delivery in a TBA centre. The centre had no personnel and equipment to handle complications. Before she could*

*be rushed to the nearest state hospital in this area, she had died on the way. So do you want me to kill myself because I'm looking for cheap service in TBAs? No I'm wiser. Although state hospitals are there with their stress and cost, yet in time of emergency your safety is better (FGD/Ibarapa East/2015).*

To buttress some aspects of the view above, a TBA said:

*I need assistance from the government for clean mattresses, better accommodation with ventilation and clean and comfortable environment (IDI/TBA/Ibarapa North/2015).*

Looking at the view above, it is obvious that most traditional alternative centres do not have facilities to handle complications or emergencies when the need arises especially in the study area. It is therefore beneficial and safe for women who patronised orthodox centre. This underlined the reasons 639 (90.4%) of the respondents said they benefitted from the utilisation of modern health care services. The benefits of modern medicine or otherwise orthodox system cut across the study locations where 244 (90.5%) in Ibarapa North and 188 (94.9%) in Ibarapa Central benefitted from modern medicine.

#### **5.4.2 Barriers to Utilisation of Orthodox Maternal Healthcare Services**

In Table 5.3, some barriers to utilisation of orthodox health care services are identified by respondents that patronized the health care centres. Some of the barriers included location of facility 220 (31.1%), approval of spouse 253 (35.8%), language 234 (33.1%), cost of services 339 (47.9%) and lack of knowledge of existing health services 260 (36.8%). Looking at language barrier, some respondents complained that they could not communicate in English language except their local language or dialects. This people constituted women that resided in the remote rural area of the study area. They however would appreciate a communication medium that can accommodate their language needs in the hospital. Other aspects of barriers were the availability of equipment 331 (46.8%), attitude of care providers 438 (62.0%) and accessibility 350 (49.5%) to health care services. The problem of medical equipment was pronounced in maternity and cottage health centres. These health facilities were grossly in acute shortage of medical equipment and even personnel. Yet they are the nearest facility to pregnant women. The attitude of health workers especially Nurses



**Table 5.3: Barriers to Utilisation of Orthodox Maternal Healthcare Services of Respondents**

	Freq N= 707	% (100)	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n=239)	%(100)	Freq(n=227)	%(100)	Freq(n=241)	%(100)
<b>Location of the facility is a barrier</b>								
Yes	220	31.1	45	23.2	44	19.4	131	54.4
No	487	68.9	194	81.2	183	80.6	110	45.6
<b>Permission to visit the facility is a barrier</b>								
Yes	253	35.8	14	5.9	71	31.3	168	69.7
No	454	64.2	225	94.1	156	68.7	73	30.3
<b>Language is a barrier</b>								
Yes	234	33.1	55	23.0	28	12.3	151	62.7
No	473	66.9	184	77.0	199	87.7	90	37.3
<b>Cost of service is a barrier</b>								
Yes	339	47.9	64	26.8	101	44.4	174	72.2
No	368	52.1	175	73.2	126	55.5	67	27.8
<b>Lack of knowledge about existing services</b>								
Yes	260	36.8	31	13.0	82	36.1	147	61.0
No	447	63.2	208	87.0	145	63.9	94	39.0
<b>Availability of medical equipment</b>								
It is a barrier	331	46.8	142	59.4	42	18.5	147	61.0
It is not a barrier	376	53.2	97	40.6	185	81.5	94	39.0
<b>Attitude of health care workers</b>								
It is a barrier	438	62.0	177	74.1	78	34.4	183	75.9
It is not a barrier	269	38.0	62	25.9	149	65.6	58	24.1
<b>Accessibility of facility</b>								
It is a barrier	350	49.5	157	65.7	49	21.6	144	59.7
It is not a barrier	357	50.5	82	34.3	178	78.4	97	40.2
<b>Consultation time</b>								
It is a barrier	380	53.7	200	84.3	40	17.6	140	58.1
It is not a barrier	327	46.3	39	16.3	187	82.4	101	41.9
<b>Tradition/religion is a barrier</b>								
Yes	303	42.9	106	44.3	52	22.9	145	60.2
No	404	57.1	133	55.6	175	77.1	96	39.8
<b>Lack of health insurance as barrier</b>								
Yes	338	47.8	60	25.1	122	53.7	156	64.7
No	369	52.2	179	74.9	105	46.3	85	35.3
<b>Husband's acceptance of service is a barrier</b>								
Yes	379	53.6	131	54.8	85	35.6	163	67.6
No	328	46.4	108	45.2	142	62.6	78	32.4
<b>Previous history of complication is a barrier</b>								
Yes	290	41.0	72	29.9	62	27.3	156	64.7
No	417	59.0	167	69.9	165	72.7	85	35.3
<b>Previous experience of service</b>								
It is a barrier	355	50.2	141	59.0	54	23.8	160	66.4
It is not a barrier	352	49.8	98	41.0	173	76.2	81	33.6
<b>Distance to health centre</b>								
It is a barrier	434	61.4	164	68.6	89	39.2	181	75.1
It is not a barrier	273	38.6	75	31.4	138	60.8	60	24.9
<b>Cost of transportation</b>								
It is a barrier	281	39.7	88	36.8	45	19.8	148	61.4
It is not a barrier	426	60.3	151	63.2	182	80.2	93	38.6
<b>Waiting time in the health centre</b>								
It is a barrier	426	60.3	124	51.9	109	48.0	193	80.1
It is not a barrier	281	39.7	115	48.1	118	52.0	48	19.9
<b>Gender of health providers</b>								
It is a barrier	182	25.7	46	19.2	20	8.8	116	48.1
It is not a barrier	525	74.3	193	80.8	207	91.2	125	51.9
<b>Satisfaction with available maternal health care services</b>								
Yes	628	88.8	234	97.9	174	76.7	220	91.3
No	79	11.2	5	2.1	53	23.3	21	8.7

Source: Author's Analysis, 2015.

was a major concern to pregnant women and other women seeking health in orthodox service. One discussant in the study said:

*...nurses are not helping matter. They talk to one without respect. They shout and in many times unfriendly...yes TBAs will encourage you. They are caring always want you to deliver successfully....no some nurses are just cruel. This does not help matter at all (FGD/Ibarapa Central/2015).*

The view above explains one reason that underlines the nonchalant attitude among some women to seek health in orthodox centres. Although hospital is now perceived as a unit of social system and this has informed government to empower patients to report erring medical personnel to appropriate authority, it is still necessary to engage nurses in remedial courses especially human resource that may improve their interpersonal relationship. Still on the barrier to utilisation of orthodox centre, respondents identified hospital consultation time/date 380 (53.7%), religion 303 (42.9%), health insurance 338 (47.8%), spouse decision 379 (53.6%), distance 434 (61.4%) and transport cost 281 (39.7%) as factors that affected their utilisation of modern health services. Some other factors were identified which consisted of previous experience of health services 355 (50.2%), waiting time 281 (39.7%), history of complication 290 (41.0%) and gender of health personnel 182 (25.7%). The gender issue is important in this context.

A discussant strongly maintained this position:

*....No! No!! No!!! I don't buy the idea of consulting the hospital when there is male Nurse or Doctor on duty. As you can see I'm a Muslim woman. My religion does not allow for another man to see my private part. I consult when I'm certain that female Nurse or Doctor is on duty (FGD/Ibarapa North/ 2015).*

Some inferences could be derived from the above statement. Religion and gender are integral part of health care system which cannot be overlooked. Women seeking maternal care services tend to be more comfortable and free when health worker(s) of same gender attend to them. At the same time, it calls for campaign of more women health professionals to be recruited in the services of maternal care system. However, the extent to which women can outnumber men in the professional health career is subject to debate. On the whole, some 628 (88.8%) of the respondents said they were

satisfied with available health care services. This is despite the barriers encountered by women seeking maternal services they still believed that the problem in the health sector could not stop them from the utilisation of the services. On the variation of satisfaction across study area, 220 (91.3%) of the respondents were satisfied in Ibarapa North and in Ibarapa Central and East, 234 (97.9%) and 174 (76.7%) were satisfied respectively. The findings of the present study is in support of the work of Cheptum *et al.*, (2014) who listed socio-economic, cultural barriers and lack of up-date education among the staff as barriers to utilisation of maternal health services. Also, findings of the study is in line with the work by Onasoga *et al.*, (2013) where poor knowledge of the existing services, previous bad obstetric history, attitude of the health care provider, availability, accessibility and husband's acceptance of the maternal healthcare service were recorded as barriers to utilisation maternal health.

### **5.5 Barriers to Utilisation of Maternal Health Care Services**

In another way of explaining utilisation of maternal health services in Ibarapa Region, some factors were identified to check their influences on utilisation of facilities. The forth hypothesis which states that cost of service, facility accessibility, husband's acceptance of service, distance, quality of service, belief system, attitude of healthcare provider and previous history of complications are significant barriers to the utilisation of maternal health care services is also tested using logistic regression analysis. The result obtained is presented in Table 5.4 and it showed that the logistic regression is significant. The implication is that cost of service, facility accessibility, husband's acceptance of service, distance, quality of service, belief system, and attitude of health care provider and previous history of complication constituted factors that either encouraged or hampered utilisation of maternal health care services among women in Ibarapa Region. The result of test in the omnibus table was similar to findings in the univariate analysis. The analysis showed that 47.2% i.e. 0.472 variability in the dependent variable (utilisation of maternal services) was explained by the independent variables which predicted barrier to utilisation of maternal health services in Ibarapa Region.

This variability shows that at least 47% of the women that utilised maternal health care services in Ibarapa were confronted with the problem stated in the independent variables. The results in the equation above, started with Wald statistics which

provided index of the significance of each predictor variable. The Wald statistics result showed that among the variables used, only facility accessibility, quality of service and belief system were significant barriers to the utilisation of maternal health care services. These variables had p-value less than 0.05. Other predictor variables in the Wald statistics did not significantly constitute barriers to the utilisation of maternal health care services ( $p > 0.05$ ). In the odd ratio column, facility accessibility, husband decision, distance, attitude and complication had value that exceeded 1. The implication is that these predictor variables were at least one and more times possible to predict utilisation of maternal health care services in Ibarapa Region. The logistic regression equation from the obtained result is given thus:

**Table 5.4: Summary of the Logistic Regression Showing the Barriers to the Utilisation of Maternal Health Care Services**

Variables	B	S.E.	Wald	Df	Sig.	Odd ratio Exp (B)	95% C.I. for EXP (B)	
							Lower	Upper
Cost	-0.045	0.314	0.021	1	0.885	0.956	0.517	1.768
<b>Facility Accessibility</b>	<b>1.478</b>	<b>0.566</b>	<b>6.824*</b>	1	0.009	4.386	1.446	13.297
Husband	0.063	0.381	0.027	1	0.869	1.065	0.505	2.247
Distance	0.766	0.417	3.381	1	0.066	2.152	0.951	4.870
<b>Quality of service</b>	<b>-1.021</b>	<b>0.466</b>	<b>4.797*</b>	1	0.029	0.360	0.144	0.898
<b>Cultural beliefs</b>	<b>-1.408</b>	<b>0.466</b>	<b>9.953*</b>	1	0.002	0.245	0.102	0.587
Attitude	0.166	0.487	0.116	1	0.734	1.180	0.455	3.064
Complication	0.795	0.447	3.163	1	0.075	2.215	0.922	5.322
Constant	1.794	0.229	61.244	1	0.000	6.016		

**Overall model estimation**

	Chi square	Df	Sig.
Step	40.151*	8	0.001
Block	40.151*	8	0.001
Model	40.151*	8	0.001

Cox & Snell R Square = 0.225; Nagelkerke R Square = 0.472; Overall model classification = 91.4%

\*Significant at 5% confidence level

**Source: Author's Analysis, 2015.**

$$\text{Logit}(p) = 1.794 + 1.478x_1 - 1.021x_2 - 1.408x_3 \dots \text{eqa 4}$$

Where:

$X_1$  = Facility accessibility

$X_2$  = Quality of service

$X_3$  = Cultural beliefs

## CHAPTER SIX

### KNOWLEDGE, ATTITUDE AND PRACTICE IN THE UTILISATION OF MATERNAL HEALTH CARE SERVICES

Maternal health services ensure that women of reproductive age have access to health facilities and utilize such services that may help them to overcome problems associated with child delivery and care. Yet the utilisation of the maternal services depends on knowledge of healthcare services provided in orthodox and non orthodox systems. Attitude of users towards care services in the orthodox and non orthodox and the practice or otherwise belief of the users about the health care services will determine how they accept or reject any care system for utilisation. The tables below provide the discussion.

#### 6.1 Knowledge of Maternal Health Care Services

In Table 6.1, respondents were asked about their knowledge of maternal health care services in their locations. Findings shows that 695 (98.3%) of the respondents had knowledge of maternal healthcare services and 12 (1.7%) of the women said they never heard of maternal health care services before. This category of women that reported lack of knowledge about maternal care services was prevalent in Ibarapa North which is the least developed local government area. Although the women have children and infants, they however said that traditional birth attendants (TBAs) were their primary source of maternal care services. A respondent in this category buttressed the point when she said:

*All my children were delivered by TBAs. I have never stepped into any hospital for any care or service to deliver my babies. I don't even like going to hospitals for child delivery. I am very satisfied with the TBAs (FGD/Ibarapa North/2015).*

Nevertheless, respondents identified hospital 444 (62.8%), school 48 (6.8%), mass media 156 (22.1%) and relative/friend 55 (7.8%) as source of information through which they gained knowledge of maternal care services. Hospital as source of information for maternal care services varies in Ibarapa North 163 (67.6%), Ibarapa Central 193 (80.8%) and Ibarapa East 88 (38.8%). This variation was also apparent in other sources of information (school, mass media and relative/friend) in the study

**Table 6.1: Knowledge of Maternal Health Care Services of Respondents**

	Freq N= 707	%	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n=239)	% (100)	Freq (n=227)	% (100)	Freq (n=241)	% (100)
<b>I have heard of maternal health care (MHC) services</b>								
Yes	695	98.3	237	99.2	226	99.6	232	96.3
No	12	1.7	2	0.8	1	0.4	9	3.7
<b>Source of information about MHC</b>	444	62.8	193	80.8	101	44.5	150	62.2
Hospital	48	6.8	10	4.2	8	3.5	30	12.4
School	156	22.1	6	2.5	112	49.3	38	15.9
Mass media	55	7.8	28	11.7	4	1.8	23	9.5
Relative/friends	4	0.6	2	0.8	2	0.9	0	0.0
Others								
<b>Hospital as source of information for MHC</b>								
Not used	202	28.6	33	13.8	95	41.9	74	30.7
Rarely used	88	12.4	0	0.0	73	32.2	15	6.2
Sometimes used	50	7.1	0	0.0	23	10.0	27	11.2
Often used	367	51.9	206	86.2	36	15.0	125	51.8
<b>School as source of information for MHC</b>								
Not used	276	39.0	211	88.3	40	17.6	25	10.4
Rarely used	162	22.9	0	0.0	86	37.9	76	31.5
Sometimes used	128	18.1	0	0.0	60	26.4	68	28.2
Often used	141	20.0	28	11.7	41	18.0	72	29.9
<b>Mass media as source information for MHC</b>								
Not used	254	35.9	223	93.3	17	7.5	14	5.8
Rarely used	81	11.5	0	0.0	21	9.3	60	24.8
Sometimes used	84	11.9	0	0.0	23	10.1	61	25.3
Often used	288	40.7	16	6.7	166	73.1	106	44.7
<b>Relative/friends as source of information for MHC</b>								
Not used	242	34.2	173	72.4	35	15.4	34	14.1
Rarely used	108	15.3	0.0	0.0	86	37.9	22	9.1
Sometimes used	113	16.0	0.0	0.0	42	18.5	71	29.5
Often used	244	34.5	66	27.6	64	28.2	114	47.3
<b>Type of communication media used</b>	410	58.0	221	92.5	90	39.6	99	41.1
Radio	105	14.9	3	1.3	53	23.3	49	20.3
Television	68	9.6	0	0.0	43	18.9	25	10.4
Newspaper/magazine	41	5.8	0	0.0	20	8.8	21	8.7
Internet	81	11.5	13	5.4	21	9.3	47	19.5
Telephone/GSM	2	0.3	2	0.8	0	0.0	0	0.0
Others								
<b>Radio as source of information</b>	55	7.8	11	4.6	1	0.4	43	17.8
Not used	30	4.2	1	0.4	7	3.1	22	9.1
Rarely used	68	9.6	0	0.0	32	14.1	36	14.9
Sometimes used	554	78.3	227	95.0	187	82.3	140	58.1
Often used								



<b>Television as source of information</b>	292	41.3	209	87.4	47	20.7	36	14.9
Not used	122	17.3	0.0	0.0	87	38.3	35	14.5
Rarely used	135	19.1	1	0.4	45	19.8	89	36.9
Sometimes used	158	22.3	29	12.1	48	21.2	81	33.6
Often used								
<b>Newspaper/magazine as source of information</b>								
Not used	405	57.3	226	94.6	126	55.5	53	21.9
Rarely used	123	17.4	0	0.0	73	32.2	49	20.3
Sometimes used	115	16.3	0	0.0	23	10.1	92	38.2
Often used	64	9.0	12	5.0	5	2.4	47	19.5
<b>Internet services as source of information</b>								
Not used	470	66.5	238	99.6	116	51.1	116	48.1
Rarely used	109	15.4	0	0.0	61	26.9	48	19.9
Sometimes used	108	15.3	0	0.0	46	20.3	62	25.7
Often used	20	2.9	1	0.4	4	1.8	15	6.2
<b>GSM services as source of information</b>								
Not used	393	55.6	227	95.0	116	51.1	50	20.7
Not used	102	14.4	1	0.4	34	15.0	67	27.8
Rarely used	84	11.9	0	0.0	43	18.9	41	17.0
Sometimes used	128	18.1	11	4.6	34	15.0	83	34.5
Often used								

Source: Author's Analysis, 2015.

locations. A respondent was quoted:

*I subscribed to a service on my phone where I got tips about life in pregnancy and safe delivery. The cost is just N100 per month. The information has really helped me in pregnancy. I followed the educations I received from the service and it has been working for me really (FGD/Ibarapa East/2015).*

The findings of this study agrees with the results of Perumal *et al.*, (2013) who observed that higher number of ANC clinic visits and higher maternal education level were significantly positively associated with maternal health knowledge. In a similar way, findings of this study corroborates the work of Olugbenga-Bello *et al.*, (2013) that the knowledge of men about maternal health was high but their involvement in giving care was low and only about half of them had good attitude towards maternal health. Findings of this study are in variance with the work of Kululanga *et al.*,(2012) who opined that the main causes of barriers to husband involvement in maternal health care are gender role norms and health system issues which is in tandem with previous views on the study.

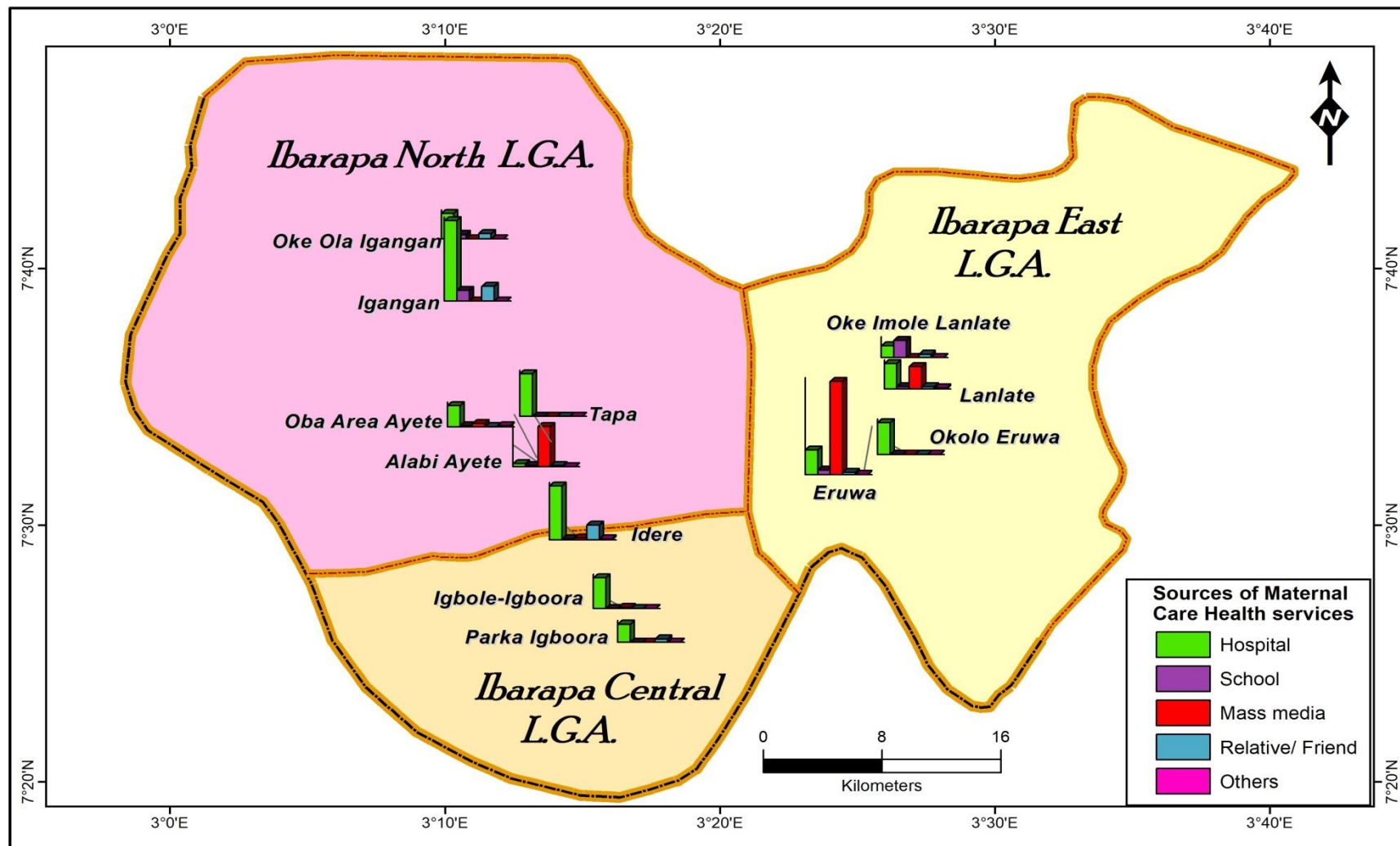
When respondents were asked to rank the source of information for maternal services in order of use, hospital was ranked *often used* 367 (51.9%). In the same order, mass media 288 (40.7%), relative/friend 244 (34.5%) and school 141 (20.0%) were ranked *often used*. The implication of this finding is that hospital, apart from being the major source of information or knowledge about maternal services, mass media, relative/friends and schools complement the source by which women of reproductive age could improve their knowledge of maternal care services. A respondent in one of the rural locations in Ibarapa Central said:

*I have four children. As you can see the baby in my hand is the fourth child. I live in the same household with my husband and mother- in- law. My first pregnancy was full of informal education from my mother- in- law. I really benefitted from her experience. This teaching contributed positively to my safe delivery. I never visited any hospital for ante natal care or even post natal care. My mother- in- law is always there for me to care and give me vital teaching (FGD/Ibarapa Central/2015).*

The view above suggests that knowledge of maternal healthcare services is multidimensional because it is possible to gain knowledge not only from orthodox hospitals but also schools; mass media and family/relative complement the source of information. However, the bothering issue lies in the veracity of the information to contribute positively to maternal care services. The type of communication facilities used by the women to gain knowledge of maternal services varied in the study location. This ranged from radio 410 (58.0%) to television 105 (14.9%), newspaper/magazine 68 (9.6%), internet 41 (5.8%) and to telephone/GSM services 81 (11.5%). The importance of this is that information about maternal services, method and technique has gone viral on various communication means which have been accessed by women in the study area. Also, it is now possible for women to relax in the comfort of their homes and have access to maternal health services on radio, television, internet and GSM services. The implication of this is that women of reproductive age are equipped with robust knowledge and information about maternal services. It also reduced the burden of spatial variation where hospital used to serve as primary source of maternal information. Radio was the major communication facility used by respondents and this varied among respondents in the study locations. Basically, radio was used in Ibarapa North 99 (41.1%), Ibarapa Central 221 (92.5%) and Ibarapa East 90 (39.6%). Respondents were asked to rank the *uses* of communication facilities as source of information for maternal services. Radio 554 (78.3%), television 158 (22.3%), and newspaper/magazine 64 (9.0%), internet 20 (2.9%) and GSM services 128 (18.1%) were ranked *often used*. This means that the aforementioned communication facilities play vital role in maternal services especially in the study area. The findings of this present study supports Shariff and Singh (2002), who found that women's exposure to information through radio, television, newspaper considerably increases the utilisation rates for all services in India. There was a 5 percent increase in the likelihood of the utilization of ante natal care for a woman who often listens to the radio compared to a woman who does not.

## **6.2 Spatial Pattern in the Sources of Maternal Health Care Services**

Knowledge of maternal health care services (MHCS) was made known to childbearing women through different sources (Figure 6.1). From the Figure, hospital was identified as the most used source of information on MHCS. This means that childbearing women get to know about MHCS when they visited the centre for different reasons such as to see a sick person, when they were ill or during antenatal care. The result showed that respondents in Alabi Ayete, Idere, Igangan, Igbole-Igboora, Igboora, Lanlate, Oke-Ola Igangan, Okolo-Eruwa, Tapa and Parka-Igboora got information of MHCS from the hospital. Those in Eruwa, Oba area Ayete and to some extent respondents in Lanlate were aware of MHCS via the mass media. The school served as a source of MHCS information to respondents in Oke-Imole, Lanlate followed closely by hospital. In addition, the least source of MHCS in some of the selected communities was relative/friend. In all, the result indicates that hospital, mass media and the school constitute principal sources of MHCS available to childbearing women. Though, other sources are available, but these three are mostly used.



**Figure 6.1: Spatial pattern in the sources of Information on MHCS**  
 Source: Author's Analysis, 2015.

One-Way Analysis of Variance (ANOVA) was also performed to find out if the sources of MHCS vary among the selected locations. The result obtained is shown in Table 6.2 and it indicated that the sources of MHCS information varied significantly among the selected locations ( $F = 20.882$ ,  $p < 0.05$ ). This simply implies that different sources are used in the area to disseminate information on the MHCS to childbearing women. It further means that childbearing women in the study area are exposed to different sources of MHCS. These sources to a large extent enable childbearing women to be knowledgeable on the importance of MHCS to their overall health and their babies.

**Table 6.2: ANOVA: Spatial Variation in the Awareness of MHCS**

<b>Source of variation</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	216.746	12	18.062	20.882*	0.001
Within Groups	600.278	694	0.865		
Total	817.024	706			

\*Significant at 5% alpha level

**Source: Author's Analysis, 2015.**

### 6.3 Knowledge of Services Rendered in Maternal Health Care Centres

In Table 6.3, respondents were asked to give their knowledge about the maternal services rendered in their centres. In this case, preconception care 527 (74.5%), antenatal care 657 (92.9%), delivery care 657 (92.9%) and postnatal care 653 (92.4%) were rendered in the maternal care centres. Competent staff 630 (89.1%), provision of pharmaceutical drug 637 (90.1%), cleanliness and comfort 633 (89.5%), delivery equipment 653 (92.4%), family planning service 670 (86.3%), immunization 643 (90.9%) and protection of mother and child care 663 (93.8%) were integral part of maternal services in many centres. The findings in qualitative data revealed some facts. In Ibarapa North, a TBA specialist put some of her views in this direction:

*My name is Iya Abiye. The name of my centre is called Iya Abiye Delivery Home. I'm 70 years old. I have over 30 years experience on this job. There is no problem at birth for women that utilized this centre. I make use of soap to bath pregnant women before the baby comes. Women are discharged the next day after delivery. I use African black soap, traditional herbs and some incantations which I inherited from my forefathers (IDI/Traditional Birth Attendant/Ibarapa North/2015).*

In another location, a TBA was quoted when he said:

*My name is Egunbambi Okanlawon. The name of my centre is called Egunbambi Okanlawon Traditional Home. I'm over 85 years old. I didn't attend any formal school for western education. We have good patronage from pregnant women. We have beds for delivery. I do spiritual consultations before attending to any patient. There was a time a woman with dead foetus was referred to my centre. The woman delivered the dead foetus within 3 hours that she was brought to the home (IDI/TBA/Ibarapa Central/2015).*



**Table 6.3: Knowledge of Services Rendered in Maternal Health Care Centres of Respondents**

	Freq N= 707		Ibarapa Central		Ibarapa East		Ibarapa North	
		%(100)	Freq (n=239)	%(100)	Freq(n=227)	%(100)	Freq(n=241)	%(100)
<b>Knowledge of preconception care</b>								
Yes	527	74.5	207	86.6	106	46.7	194	80.5
No	180	25.5	32	13.4	121	53.3	47	19.5
<b>Knowledge of antenatal care</b>								
Yes	657	92.9	219	91.6	197	86.8	241	100
No	50	7.1	20	8.4	30	13.2	0	0
<b>Knowledge of delivery care</b>								
Yes	657	92.9	219	91.6	197	86.8	241	100
No	50	7.1	20	8.4	30	13.2	0	0
<b>Knowledge of postnatal care</b>								
Yes	653	92.4	218	91.2	196	86.3	239	99.3
No	54	7.6	21	8.8	31	13.7	2	0.7
<b>Availability of competent staff</b>								
Yes	630	89.1	215	90.0	187	82.4	228	94.6
No	77	10.9	24	10.0	40	17.6	13	5.4
<b>Availability of pharmaceutical drug</b>								
Yes	637	90.1	222	92.9	186	81.9	229	95.0
No	70	9.9	17	7.1	41	18.1	12	5.0
<b>Cleanliness of the maternal care centre</b>								
Yes	633	89.5	218	91.2	185	81.5	230	95.4
No	54	10.5	21	8.8	42	18.5	11	4.6
<b>Available equipment that facilitate delivery</b>								
Yes	653	92.4	219	91.6	204	89.9	230	95.4
No	54	7.6	20	8.4	23	10.1	11	4.6
<b>Family planning service</b>								
Yes	610	86.3	199	83.3	182	80.2	229	95.0
No	97	13.7	40	16.7	45	19.8	12	5.0
<b>Immunization service</b>								
Yes	643	90.9	216	90.4	188	82.8	239	99.2
No	64	9.1	23	9.6	39	17.2	2	0.8
<b>Protection of mother and child</b>								
Yes	663	93.8	217	90.8	205	90.3	241	100
No	44	6.2	22	9.2	22	9.7	0	0

Source: Author's Analysis, 2015.

Similarly, another TBA in Ibarapa East said:

*The name of my centre is called Iya Adua Delivery Home. I'm over 70 years of age. I used to make pap (eko) before I finally switched to TBA. I don't have formal education. My midwifery skill is a gift from God and hereditary. I make use of black soap, gbera (incision), agbo (traditional herb) and incantations. A woman with dead foetus was brought my centre sometime ago. I chanted some incantations which made the woman to be forced to labour and delivered the dead foetus. The woman gave birth in a sitting position (IDI/ TBA/ Ibarapa East/2015).*

The observation in the TBA centres was not encouraging. The environment of most centres was very dirty and unkempt. The houses where TBAs reside were like shanties which lacked basic amenities such as toilet, kitchen, electricity, water supply and drainage and so on. The windows and doors of most centres had no mosquito nets and the houses were poorly ventilated. Many centres lived with so many domestic animals in the environment. It is also observed that most centres do not have facilities to handle emergencies which put many women seeking maternal care services at high risk. However, consultation to some orthodox health care centres revealed some differences.

A medical officer in a government bound hospital said:

*The hospital has good patronage. As you can see, there are cleaners to make the hospital clean. There are facilities and equipment to provide reliable health services. In government hospitals, the government is expected to provide materials needed for delivery such as dettol, detergents, izal, mentholated spirit and sanitary towels etc. The hospital collects ₦2,000 from each expected mother to supplement for these materials. This is a major problem the hospital is confronted with (IDI/Medical Officer/Orthodox Hospital/ Ibarapa Central 2015).*

Similarly, another respondent from a private bound orthodox hospital said:

*The hospital has equipment to handle complications arising from child delivery. Our services are reliable. In this hospital, we collected between ₦60,000 and ₦80,000 for caesarian section (CS). This depends on whether it is single or twins' delivery. For normal delivery, it is between ₦10,000 and ₦20,000 (IDI/ Medical Officer/ Orthodox/ Ibarapa East).*

The general observation from the findings is that respondents could identify different services offered in the maternal care centres. However, how the services are offered, facilities available in the centres and cost of services varied in different locations. While it is true to state that facilities in most TBAs centres do not measure up to handle any complication arising from child delivery despite the affordable cost of patronage, in orthodox services, facilities are not adequate to provide cheap maternal health services.

#### **6.4 Knowledge in Child Birth**

In Table 6.4, respondents were asked to give their knowledge and experience in child delivery. Findings shows that male 380 (53.7%) and female 327 (46.3%) were indicated as sex of first child delivery. At the same time, assisted delivery 265 (37.5%), caesarian 62 (8.8%), normal delivery 206 (29.1%) and spontaneous delivery 174 (24.6%) were reported as mode of child delivery among the women. In the second child experience among the women, male 306 (43.3%) and female 401 (56.7%) were reported as variation in the sex at birth. The mode of delivery also showed that the women delivered their babies by means of assisted delivery 266 (37.6%), caesarian 63 (8.9%), normal 291 (41.2%) and spontaneous delivery 87 (12.3%). In the third experience of child birth, there were male 365 (51.6%) and female 342 (48.4%) sex. The mode of delivery consisted of assisted 242 (34.2%), caesarian 69 (9.8%), normal 312 (44.1%) and spontaneous delivery 84 (11.9%). The fourth experience of child delivery identified male 335 (47.4%) and female 372 (52.6%) sex. The mode of child delivery in the fourth experience showed that the women delivered through assisted delivery 245 (34.7%), normal 302 (42.7%), caesarian 72 (10.2%) and spontaneous 88 (12.4%).

In the findings above, some facts are revealed. The mode of child delivery among women in study area showed that some women delivered their babies normally without inducement and complications. Similarly, some women delivered their babies by means of caesarian section, assisted delivery and spontaneous delivery. Assisted delivery comes in the form where pregnant women are induced or given injection to quicken child delivery. This is still a reflection of normal delivery process which has no complications. Spontaneous delivery occurs when pregnant women deliver their babies during period which is least expected.

**Table 6.4: Knowledge in Child Birth of Respondents**

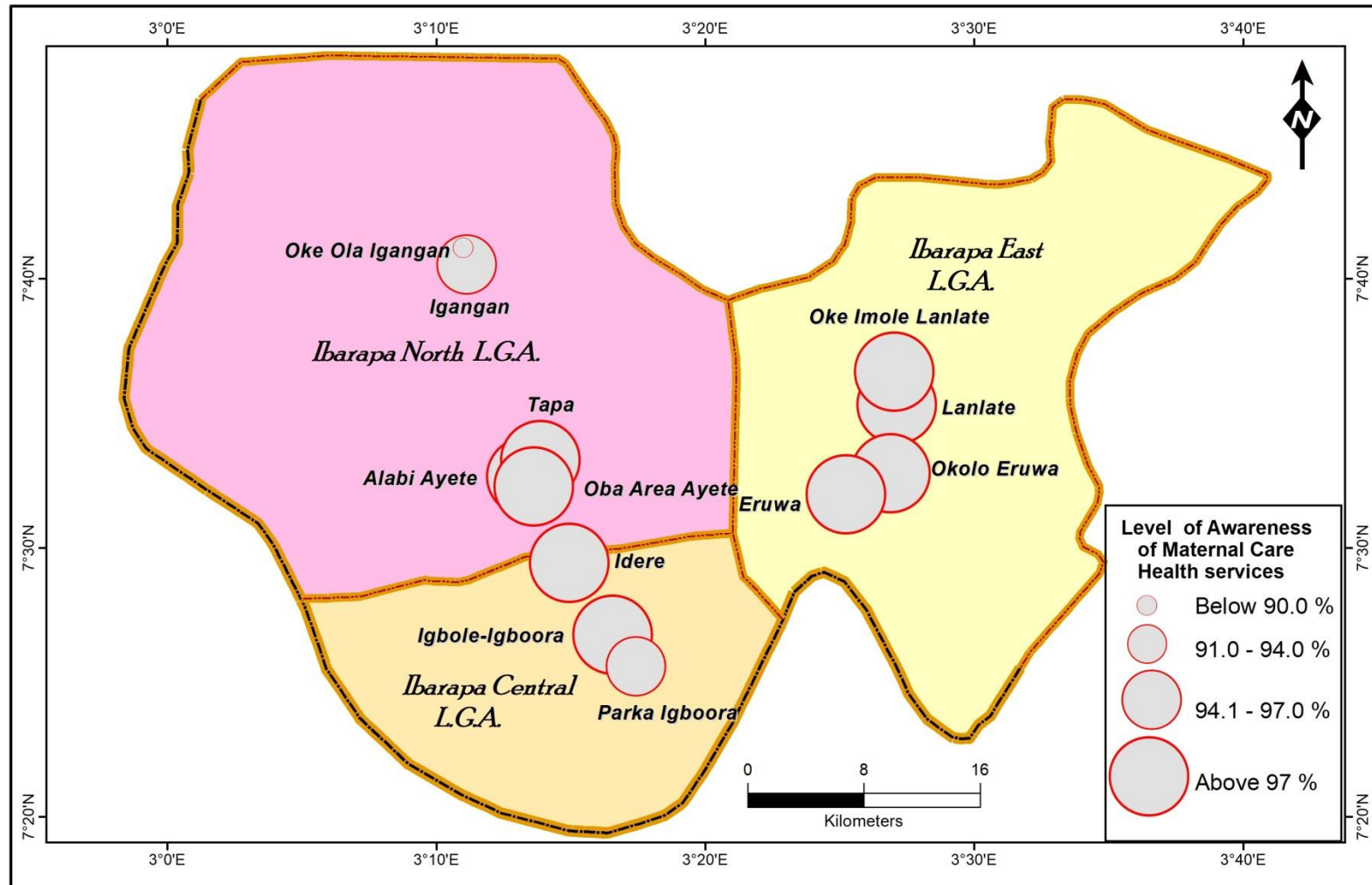
	Freq N= 707	% (100)	Ibarapa Central		Ibarapa East		Ibarapa North	
			Freq (n=239)	%(100)	Freq(n=227)	%(100)	Freq(n=241)	%(100)
<b>Mode of delivery of first child</b>								
Assisted	265	37.5	135	56.5	96	42.3	34	14.1
Caesarian	62	8.8	13	5.4	30	13.2	19	7.9
Normal	206	29.1	18	7.5	96	42.3	92	38.2
Spontaneous	174	24.6	73	30.5	5	2.2	96	39.8
<b>Sex of first child</b>								
Male	380	53.7	117	49.0	139	61.2	124	51.5
Female	327	46.3	122	51.0	88	38.8	117	48.5
<b>Mode of delivery of second child</b>								
Assisted	266	37.6	113	47.3	91	40.1	64	26.7
Caesarian	63	8.9	14	5.9	30	13.2	19	7.9
Normal	291	41.2	91	38.0	91	40.1	109	45.2
Spontaneous	87	12.3	21	8.8	15	6.6	51	21.2
<b>Sex of second child</b>								
Male	306	43.3	90	37.7	115	50.7	101	42.0
Female	401	56.7	149	62.3	112	49.3	140	58.0
<b>Mode of delivery of third child</b>								
Assisted	242	34.2	111	46.4	83	36.6	48	19.9
Caesarian	69	9.8	14	5.9	34	15.0	21	8.7
Normal	312	44.1	93	38.9	100	44.0	119	49.4
Spontaneous	84	11.9	21	8.8	10	4.4	53	22.0
<b>Sex of third child</b>								
Male	365	51.6	127	53.1	124	54.6	114	47.3
Female	342	48.4	112	46.9	103	45.4	127	52.7
<b>Mode of delivery of fourth child</b>								
Assisted	245	34.7	111	46.4	83	36.6	51	21.2
Caesarian	72	10.2	14	5.9	34	15.0	24	10.0
Normal	302	42.7	93	38.9	100	44.0	109	45.2
Spontaneous	88	12.4	21	8.8	10	4.4	57	23.6
<b>Sex of fourth child</b>								
Male	335	47.4	127	53.1	101	44.5	107	44.4
Female	372	52.6	112	46.9	126	55.5	134	55.6

Source: Author's Analysis, 2015

This type of delivery may occur at any point in time for which the woman is never prepared. This still represents normal delivery in as much there is no complication and unending pains. The odd one out in the mode of child delivery is the caesarian section. This is delivery by surgical operation where foetus is removed from the womb. Findings showed that this rate appeared to increase with every experience of child birth. At first child delivery experience, the rate was 62 (8.8%). At second child experience, it was 63 (8.9%). The rate was 69 (9.8%) and 72 (10.2%) at third and fourth child experience respectively. The implication is that the experience of women in child delivery in the study is still fraught with some challenges. Although there was increased patronage of TBAs centres by pregnant women, these women were not protected from complications as many centres lacked obstetric equipment, hygienic environment, professional personnel that could handle emergencies during child delivery. The findings of the study are in consonants with the work of Yar'zever and Said (2013), in which they found that there is a significant relationship between the respondents' level of education, income, age in both urban and rural.

## **6.5 Spatial Pattern in the Awareness of Maternal Healthcare Services**

Awareness is an essential component of facility or service use; this is because it enables people or a target population to be aware of a facility or service and the relevance of making use of it. The information in Figure 6.2 shows the respondents' awareness of maternal healthcare service (MHCS) across thirteen communities that were sampled in the study area. From the result, it is obvious that respondents are fully aware of MHCS. It means that almost all the respondents have heard of MHCS via various sources of information dissemination. There is spatial variation in the pattern of awareness in the utilisation of maternal healthcare services in the study area. Figure 6.2 shows clearly that between 87.9% and 94.5% of the respondents recorded a low level of awareness of MHCS, particularly in Oke-Ola Igangan, and Parka-Igboora, while about 94.1% to 100% of the respondents recorded a high level of awareness in other communities studied. This calls for more enlightenment on the importance of MHCS to childbearing women in the communities with low level of awareness.



**Figure 6.2: Spatial pattern in the MHCS awareness**  
**Source: Author's Analysis, 2015.**

In addition, One-Way Analysis of Variance (ANOVA) was performed to ascertain if the awareness of MHCS varies among the selected communities. The result obtained is shown in Table 6.5 and it indicated that the MHCS awareness varied significantly over space ( $F = 2.715$ ,  $p < 0.05$ ). This simply implies that the awareness of MHCS among childbearing women varies significantly among the study area.

**Table 6.5: ANOVA: Spatial variation in the awareness of MHCS**

<b>Source of variation</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	0.529	12	.044	2.715*	0.001
Within Groups	11.267	694	.016		
Total	11.796	706			

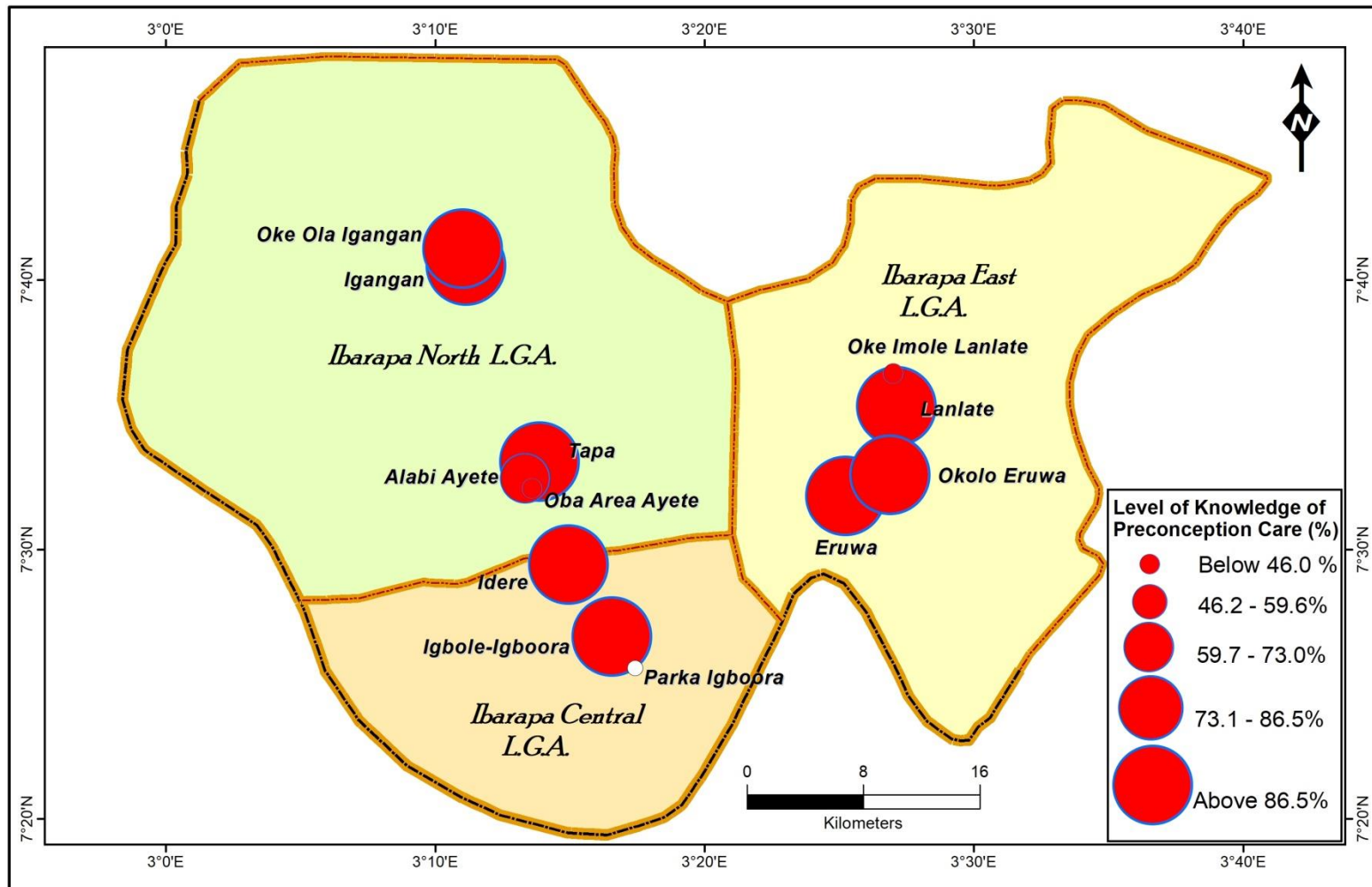
\*Significant at 5% alpha level

**Source: Author's Analysis, 2015.**



## **6.6 Spatial Perception in the Knowledge of Preconception Care**

Preconception care is an essential part of a successful pregnancy and maternity cycle. The result in Figure 6.3 shows that not all the communities sampled were knowledgeable of preconception care. There is spatial variation in knowledge of preconception care in Ibarapa Region. The result showed that 32.6% -59.6% of the respondents had a low level of perception in the knowledge of perception care during pregnancy in Eruwa, Lanlate and Oba Area Ayete. On the other hand, 86.5% -100% of the respondents reported high level of perception in the knowledge of preconception care in Igbole-Igboora, Idere, Oke-Imole Lanlate, Idere, Tapa and Igboora. The three communities (Eruwa, Lanlate and Oba Area Ayete) with low level of perception in the level of preconception care need more education and awareness on the importance of preconception care mostly as it pertains to their health and that of their expectant babies. The result further indicated that all the childbearing women that were sampled in Parka-Igboora did not have knowledge on preconception care. A closer look at these results indicate that respondents with larger proportion of child bearing women with adequate knowledge on the need for preconception care during pregnancy were found in Ibarapa Central while Ibarapa North and Ibarapa East had mixed variation of low and high percentage. In all, the result depicted in Figure 6.3 shows that majority of the communities surveyed have knowledge on preconception care. Despite the fact that majority of the women are knowledgeable of preconception care, there is the need for more awareness campaign in order to attain complete coverage of preconception care. This is necessary to increase childbearing women level of knowledge on the importance of preconception care during pregnancy.



**Figure 6.3: Spatial Pattern in the Knowledge of Preconception Care**  
 Source: Author's Analysis, 2015.

Result of One-Way Analysis of Variance (ANOVA) shown in Table 6.6 shows that childbearing women knowledge on preconception care varied significantly among the selected communities ( $F = 38.661$ ,  $p < 0.05$ ). This shows that preconception care varies significantly among childbearing women in the selected communities in the study area. This indicates that not all childbearing women in the communities have adequate knowledge on preconception care.

**Table 6.6: ANOVA result of the spatial variation in preconception care**

<b>Source of variation</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	53.757	12	4.480	38.661*	.001
Within Groups	80.416	694	.116		
Total	134.173	706			

\*Significant at 5% alpha level

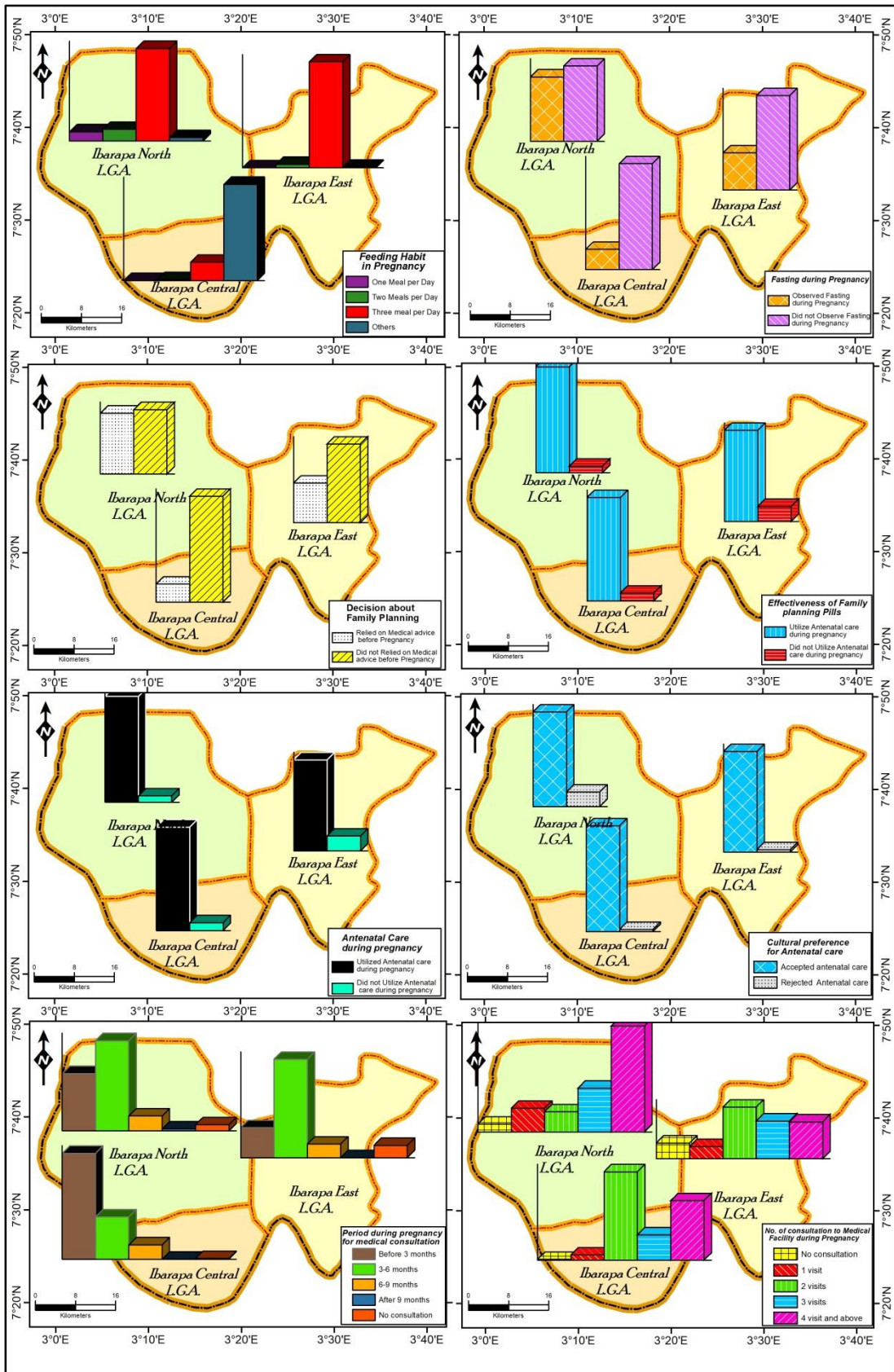
**Source: Author's Analysis, 2015.**

## 6.7 Attitude in Antenatal Maternal Health Services

The findings in Figures 6.4a and 6.4b show attitude of respondents during antenatal period. Respondents were asked to describe their feeding habit during pregnancy. Findings showed that some 19 (2.7%) of the pregnant women preferred to eat once in day. Others would eat twice 33 (4.7%) per day, three times 448 (63.4%) per day and 207 (29.3%) could not identify the number of times they eat per day as they tend to increase their feeding during pregnancy. Some 231 (32.7%) of the respondents said that they sometimes observe fasting during pregnancy to fulfill their religious obligation, although 228 (32.2%) relied on medical advice to carry out the fasting. This finding on fasting during pregnancy revealed some facts. It is a statement of fact that nutrition is the hallmark of pregnant women to ensure healthy living of mother and foetus. At the same time, pregnancy may not prevent women from performing some religious functions. Indeed some women took solace in the spiritual realm when they are pregnant. A respondent said:

*It is the pregnancy period that women should be more religious. Orthodox method though very good, spiritual solution guide orthodox success. Yes I fasted during pregnancy. But it is with caution. In many faith clinic centres designated for child delivery, pregnant women are encouraged to fast for some hours (FGD/Market Trader/Ibarapa North/2015).*

Furthermore, 644 (91.1%) of the respondents consulted health facility for antenatal care, while 665 (94.1%) had cultural preference for antenatal health care services. However, there were 42 (5.9%) of the respondents that showed lack of interest in antenatal services. At the same time, 63 (8.9%) of the respondents did not attend any antenatal health facility. This category of respondents strictly patronized TBAs centres to nurture their pregnancy. Nevertheless, most women seeking maternal health services patronized orthodox health services. It was observed in the findings that those that utilized orthodox method also complemented their health seeking behavior by consulting TBAs centres. Some of the reasons for this health behaviour were hinged on distance, cost, and trust and belief system. Looking at the aspect of distance, the observation is that many women seeking maternal services lived some 5-10 kilometers away from health facilities. The facilities were not readily available nearby except the TBAs that were available in large numbers. Ezeama and Ezeamah (2014) are in variance to the study, they opined that



**Figure 6.4a: Attitude towards Antenatal Maternal Health Services of Respondents**

Source: Author's Analysis, 2015.

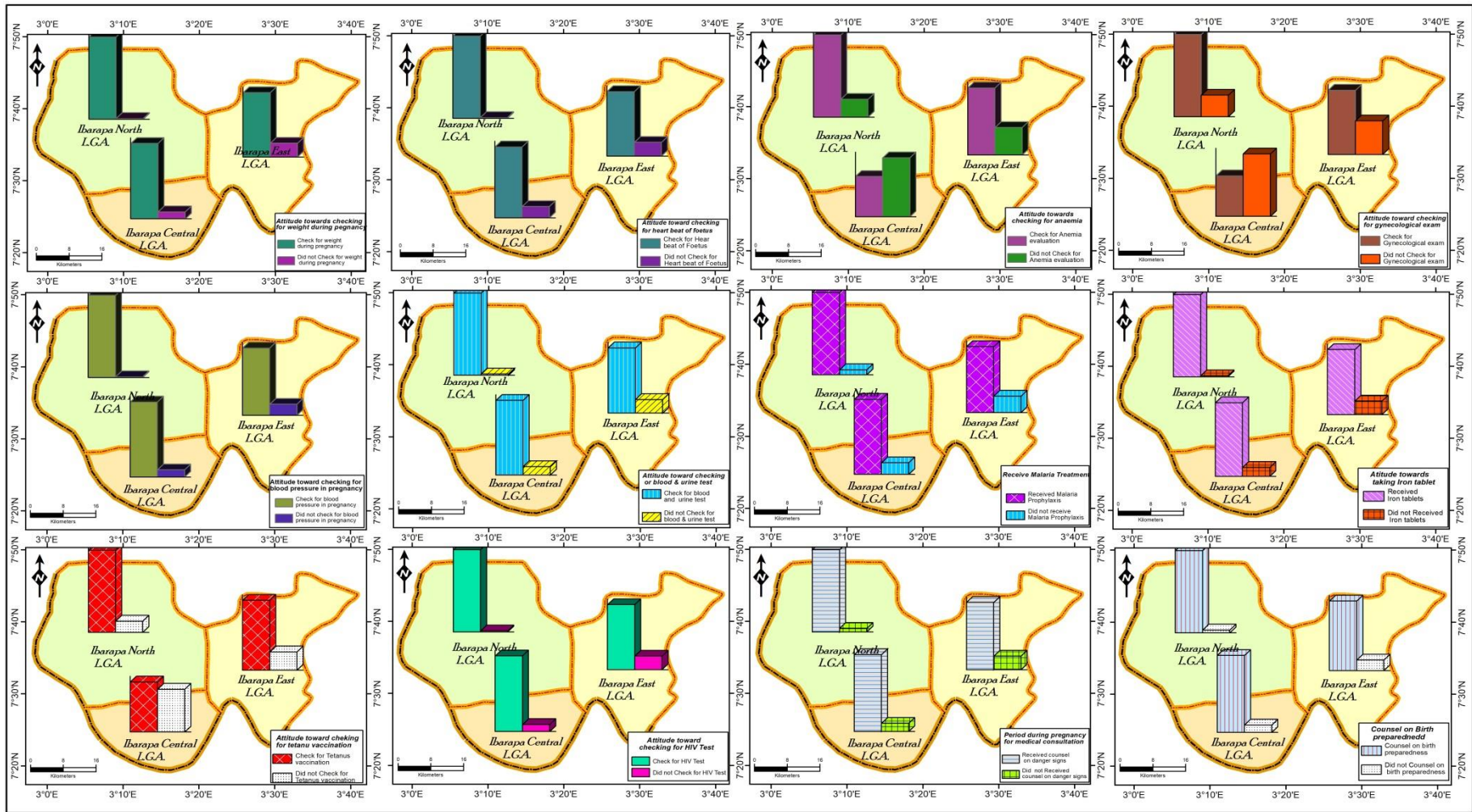


Figure 6.4b: Attitude towards Antenatal Maternal Health Services of Respondents

Source: Author's Analysis, 2015.

education played important role in antenatal care clinic attendance by pregnant woman order than other factors, the more educated the pregnant women were, the more they registered and attended the ANC. The findings of the study is in line with Ugal *et al.*, (2012), who supported that there was a significant association between utilisation of maternal health facilities and maternal health outcome manifest in successful and healthy birth outcomes. Similarly, Chimankar and Sahoo (2011), are in consonance with the study with the educational level of women, birth order and wealth index are significant predictors in explaining ante-natal and delivery care.

In addition, respondents were requested to specify period during pregnancy in which they make medical consultation. In this case, 283 (40.0%) of the respondents started their medical consultation at less than three month old in their pregnancy. This suggests that some women started consultation immediately they missed their monthly period. This health behaviour is supported by medical experts to ensure smooth and safe pregnancy period. At the other end, 338(47.8%) of the respondents had their first consultation when pregnancy was between three and six months. Also, 63 (8.9%) consulted when pregnancy was between six and nine months. There were those 3 (0.4%) that consulted after nine months of pregnancy and 20 (2.8%) were the category of the women who did not consult health services. The women who did not consult health services strictly believed in the efficacy of traditional herbs, incantations and supernatural powers of TBAs. This point was buttressed when a respondent said:

*It is not in our habit to consult orthodox centre. We believe in the Herbalist who specialize in traditional births attendants. All women in our home deliver safely at traditional centres. There has never been complication of any kind. We believe in the powers of herbs (FGD/Trader/Ibarapa North/2015).*

At the same time, consultation to orthodox centre during pregnancy may be affected by availability of the facility, nearness to the facility, availability of medical equipment, health personnel, cost and financial status of the health seekers. Findings revealed that where facilities were available, pregnant women were compelled to pay for medical material apart from normal bills they are required to pay for services. In some cases, medical personnel are not available to attend to health seekers. Distance was another factor of discouragement to women seeking maternal services. The number of visit to



orthodox health centre showed that 47 (6.6%) of the respondents visited only once. There were respondents that visited twice 183 (25.9%), three times 122 (17.3%) and four times and above 327 (46.3%). At the other end, 28 (4.0%) of the respondents did not even visit the orthodox health services. This category of respondents still captured those who strictly believed in the efficacy of TBAs.

Findings further shows that the health services provided for women seeking maternal care covered some aspects of antenatal care. This consisted of weight of mother 645 (91.2%), heartbeat of foetus 629 (89.0%), blood pressure 652 (92.2%), blood and urine test 640 (90.5%), tetanus vaccination 521 (73.7%) and gynecological examination 434 (61.4%). Other services provided as requirement for antenatal care also included anemia evaluation 456 (64.5%), iron tables 639 (90.4%), HIV test 645 (91.2%), counsel on danger sign 636 (90.0%) and counsel on birth preparedness 648 (91.7%). These services mentioned above are some of the requirement specified by World Health Organisation to ensure safety of mother and foetus to the point of delivery. However, how these services were carried out and the cost attached differed from health facilities to another. A respondent who was a health officer in one of the facilities consulted said:

*Most of the maternity centres are dilapidated because they are old. They need urgent renovation. Bed spaces are not adequate especially in maternity centres. This is the major reason pregnant women are sometimes compelled to pay for materials and some sanitary pads used (IDI/Health Worker/Ibarapa East/2015).*

Another respondent was quoted when he said:

*State hospitals have more beds spaces but they recorded low patronage. The women prefer to use maternity hospitals rather than state hospitals which are far away from the communities. Due to this distance constraint the patronage in state hospital is low (IDI/Health Worker/Ibarapa Central/2015).*

Similarly, a respondent said:

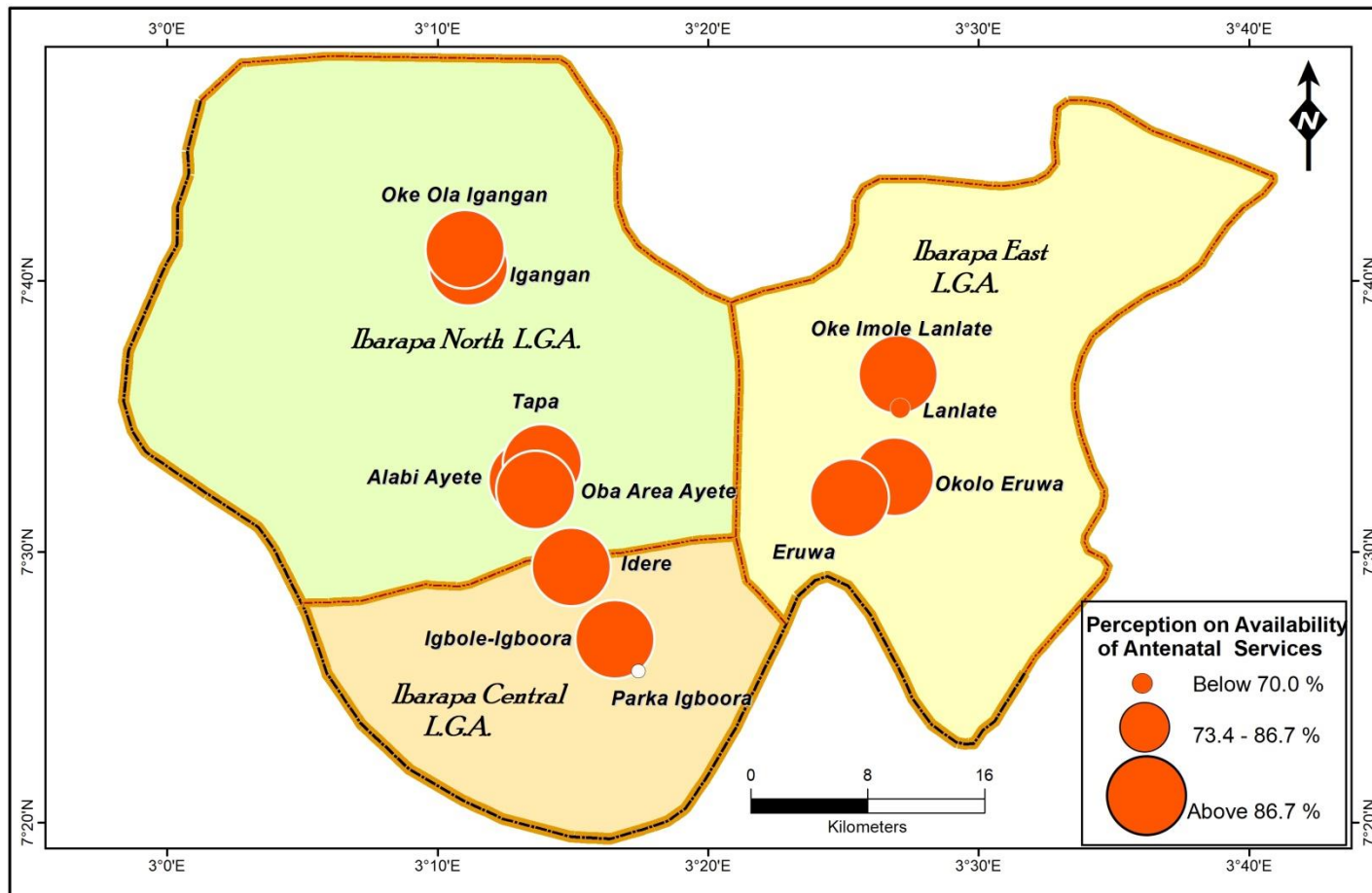
*The year of establishment of these maternity centres is a factor why women used them most. State hospitals were established not quite long say 15 years. The women cannot afford transport cost to state hospitals. They prefer nearby*

*clinics that are trekable* (IDI/Health Worker/Ibarapa East/2015).

It follows from the above views that facilities available, distance, cost and quality of health personnel are likely going to affect the quality of antenatal care services that women seeking maternal health would get. Nevertheless, findings revealed that most women seeking maternal services relied on orthodox health which is most likely to offer better service. The study of Barry *et al.*, (2014), who assessed the effect of community maternal and newborn health family meetings on type of birth attendant and completeness of maternal and newborn care received during birth and the early postnatal period supported the study with the opinion that women with any antenatal care used a skilled provider or health extension worker for birth care and those who attended two or more meetings with family members were more likely to have used these providers. Ojong *et al.*, (2015) further confirmed that focused antenatal care was high, pregnant women had good knowledge and favourable attitude towards focused antenatal care.

#### **6.8 Spatial Pattern of the Perception of the Availability of Antenatal Care (ANC) Services rendered in Maternal Healthcare Centres**

Antenatal care (ANC) is also an essential precondition required during pregnancy. This is because it helps to safeguard the health of the mother and the child. The result in Figure 6.5 gives information on the perception of respondents in the selected communities where ANC is rendered to pregnant women. The result showed that 60% of the respondents in Lanlate had low level of perception of the availability of ANC services that were rendered in maternal healthcare centres. Whereas, between 86.0% and 100% of the respondents recorded high level of perception of the availability of ANC services rendered in MHCS in Alabi Ayete, Eruwa, Idere, Igangan, Igbole-Igboora, Igboora, Oba Area Ayete, Oke-Imole Lanlate, Oke-Ola Igangan, Okolo-Eruwa and Tapa. These communities had access to ANC services in their maternal healthcare centres (Figure 6.5). The only community where ANC was not rendered to childbearing women was Parka-Igboora. It also indicated that ANC services needed to be increased in Lanlate and partially in Eruwa to enable pregnant women enjoy the benefits of ANC services. The result obtained therefore reveals that ANC services are effectively rendered to majority of the pregnant women and that access to ANC services needs to be improved upon in areas where they are lacking and ineffective.



**Figure 6.5 Perception of the Availability of Antenatal care among the selected communities**

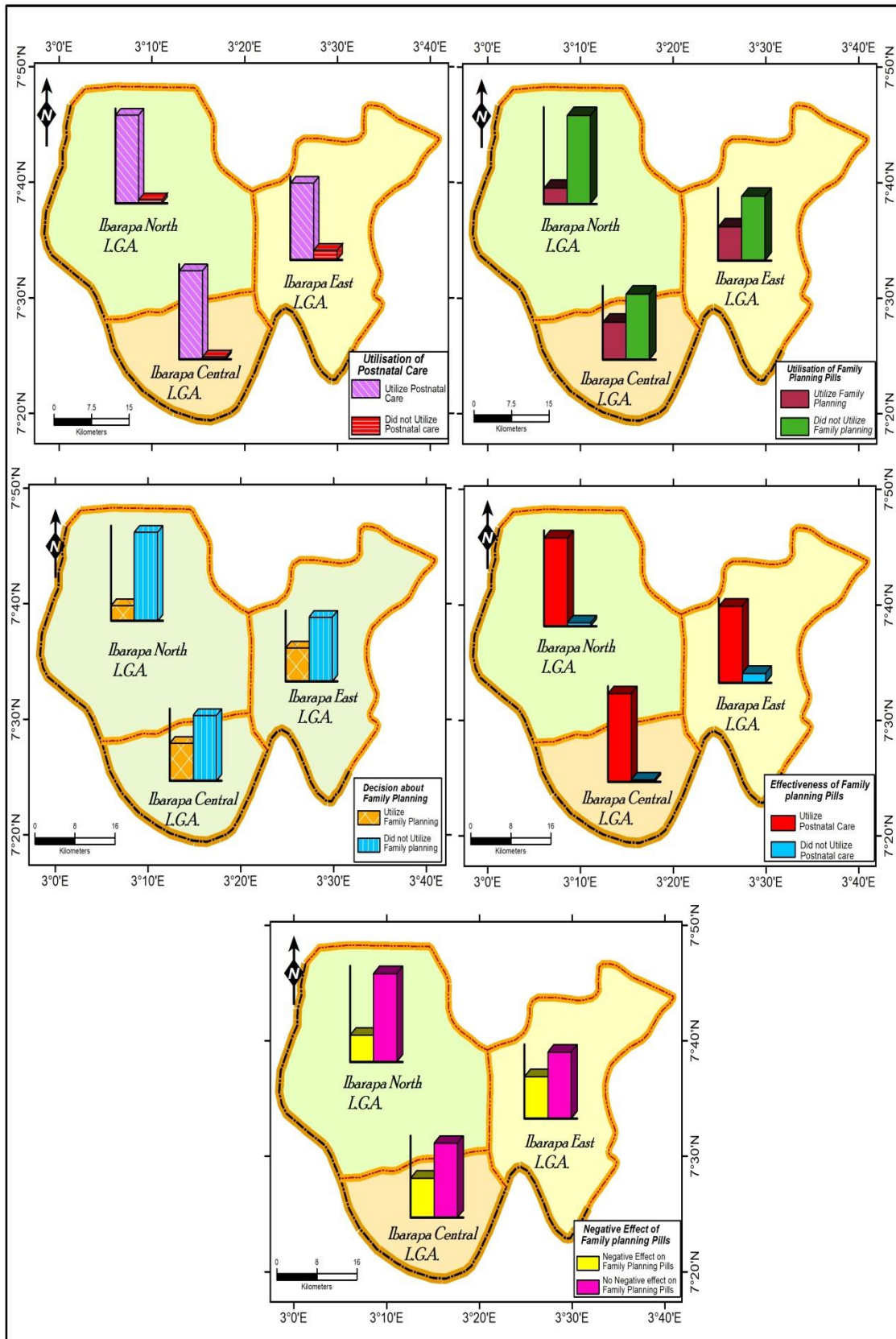
Source: Author's Analysis, 2015.

## 6.9 Attitude towards Postnatal Maternal Healthcare Services

The finding in Figure 6.6 shows attitude of women in the postnatal maternal care services. Respondents were asked about their utilisation of postnatal maternal facilities. In this respect, 667(94.3%) of the respondents said that they made use of postnatal services and only 40 (5.7%) did not use the service. On the utilisation of family planning pills, 506 (71.6%) said they used the pills as control measure for fertilization. Similarly, 201 (28.4%) did not use pills or pregnancy control method. Those that utilized family planning pills identified different methods which consisted of connection ring (1.1%), copper T (4.0%), condom (13.6%), depot (2.0%), drug (0.3%) and implant (0.4%). Others used injection (2.0%), oral (6.6%), pill (14.6%), tradition (1.8%) and noristerantz (5.0%). The decision for use of family planning was carried out by both partners 424 (60.0%), either of the partners 273 (38.6%) and others 10 (1.4%) which may be advice from Doctors, Nurses and friends. Looking at the effectiveness of family planning, 124 (17.5%) of the users rated it very effective, 239 (33.8%) said it is effective and 183 (25.9%) ranked it as ineffective. Also there were 161 (22.8%) of the respondents that rated family planning very ineffective. The question of whether family planning has negative effect or otherwise showed that 227 (32.1%) described as having some negative consequences for women, while 480 (67.9%) said family is good and without any negative consequence. Some of the consequences of family planning identified included abnormal discharge from vulva (2.4%), bleeding (10.7%), dizziness (26.7%), fatness (0.1), headache (16.7%) and increased body mass (0.1%). Others consisted of irregular of menstrual period (18.4), nausea (8.3%), tiredness (1.5%) and vomiting (3.7%).

A further investigation from face to discussion revealed some facts. A respondent who is on family planning pills shared her views:

*I'm on pills. As you can see this is my baby. The name of the pills I used is called ring. It is very good. It allows for child spacing. My husband and I enjoy it. We have confidence it. I use to consult my Doctor every two months to check for its update (FGD/Ibarapa East/2015).*



**Figure 6.6: Attitude towards Postnatal Maternal Health Care Services.**  
**Source: Author's Analysis, 2015.**

Another respondent shared her views when she said:

*I do not think there is anything bad using the pregnancy prevention method. I'm on one method. It is a drug. It works well for me. The only problem is that my house is far away from the state hospital. You know that only qualified doctors or nurses that know better should recommend the pill. I spent a lot of money and energy to get here. I wish the hospital is located nearby (FGD/Ibarapa East/ 2015).*

Moreover, a respondent who was scared and uncomfortable about the utilisation of family planning pills said:

*I'm just afraid. The hospitals we have do not have doctors. The ones available are not regular for consultancy services. I can't use something that may have negative effect on me (FGD/Ibarapa Central/2015).*

The application of the responses above show that although family planning pills are good especially to space children and protect lives of women of reproductive age, the challenge is the availability of medical personnel to provide guide and advice on the use. Most women in study area lived in locations that were not easily accessible to state hospitals where there are doctors and nurses that could offered professional advice. Against this fact, a medical worker in one of the government hospitals said:

*...State hospitals have ambulances. The women have to rely only on public means of transportation which may not be available in times of emergency (IDI/Health Worker/ Ibarapa North/2015).*

The position above showed that attitude of women seeking maternal services in orthodox health centres will continue to be hampered due to distance to facility centre and cost of transportation. The findings of the study is in support of the work of Asfawosen *et al.*, (2014) who associated postnatal care with with place of delivery; knowledge on complicated related pregnancy, from where got information and knowledge on postnatal care which is also a determinant in place of delivery by the pregnant mothers. Women husband educational status might have effect on women decision to deliver at health institution and accompany of women to ANC by their

husbands and their awareness on postnatal care services could influence postnatal care utilisation.

#### **6.10 Spatial Pattern of Family Planning rendered in Maternal Healthcare Centres**

Respondents were asked to determine if family planning measures were in Figure 6.7 also shows the spatial pattern of utilisation of family rendered in their various maternal healthcare centres. The result planning services in the selected communities. This indicated that 54.0% to 77.0 % of the respondents in Lanlate and Eruwa recorded a low level of utilisation of family planning services. In contrast, 88.6% - 100% of child bearing women had a high level of utilisation of family services, rendered in the maternal healthcare centres in the study area. It revealed that among the thirteen communities sampled, family planning measures were completely rendered to pregnant women in Alabi-Ayete, Idere, Igangan, Igboora, Oba Area Ayete, Oke-Ola Igangan, Igbole-Igboora, Oke-Imole Lanlate, Okolo-Eruwa and Tapa, while the services were not rendered in the maternal healthcare centres in Parka-Igboora. This means that apart from Parka-Igboora where family planning is not completely rendered, the services need to be improved upon in Eruwa, and Parka-Igboora communities to increase the number of women knowledgeable on family planning measures and how to apply them.

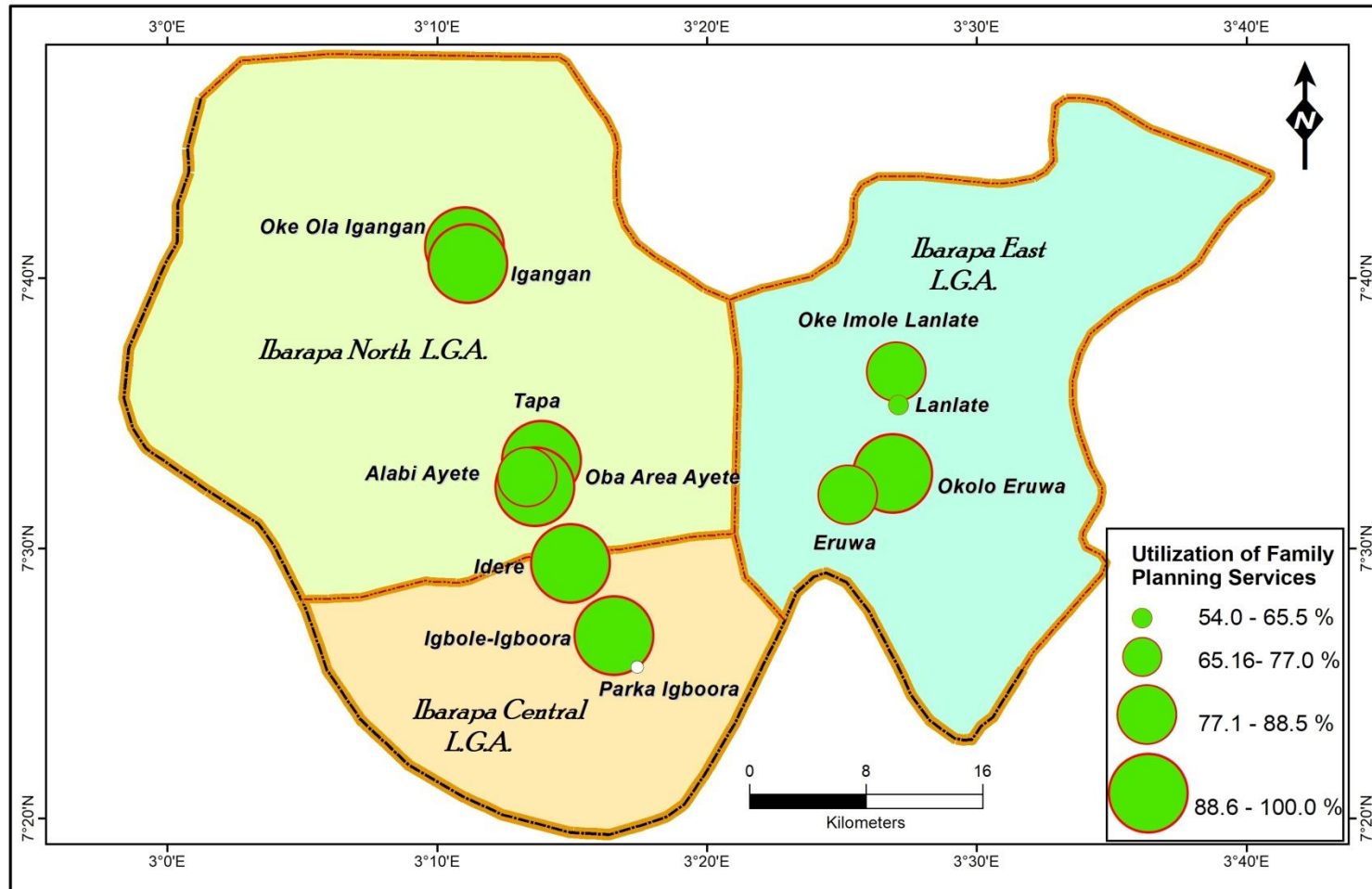


Figure 6.7: Utilisation of Family Planning Services.

Source: author's Analysis, 2015.



The pattern presented above is further verified by the result of One-Way Analysis of Variance (ANOVA) shown in Table 6.7 which reveals that childbearing women knowledge on family planning in the maternal healthcare centres varied significantly among the selected communities ( $F = 63.771$ ,  $p < 0.05$ ). This implies that family planning services vary across the maternal healthcare centres in the selected communities as not all the centres render or carry out campaign on family planning. If some areas where the services are rendered, they are not effectively carried out to the knowledge of some of the women that attend the maternal healthcare centres.

**Table 6.7: ANOVA result of the spatial variation in preconception care**

<b>Source of variation</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	24.366	12	2.031	63.771*	0.001
Within Groups	22.098	694	0.032		
Total	46.464	706			

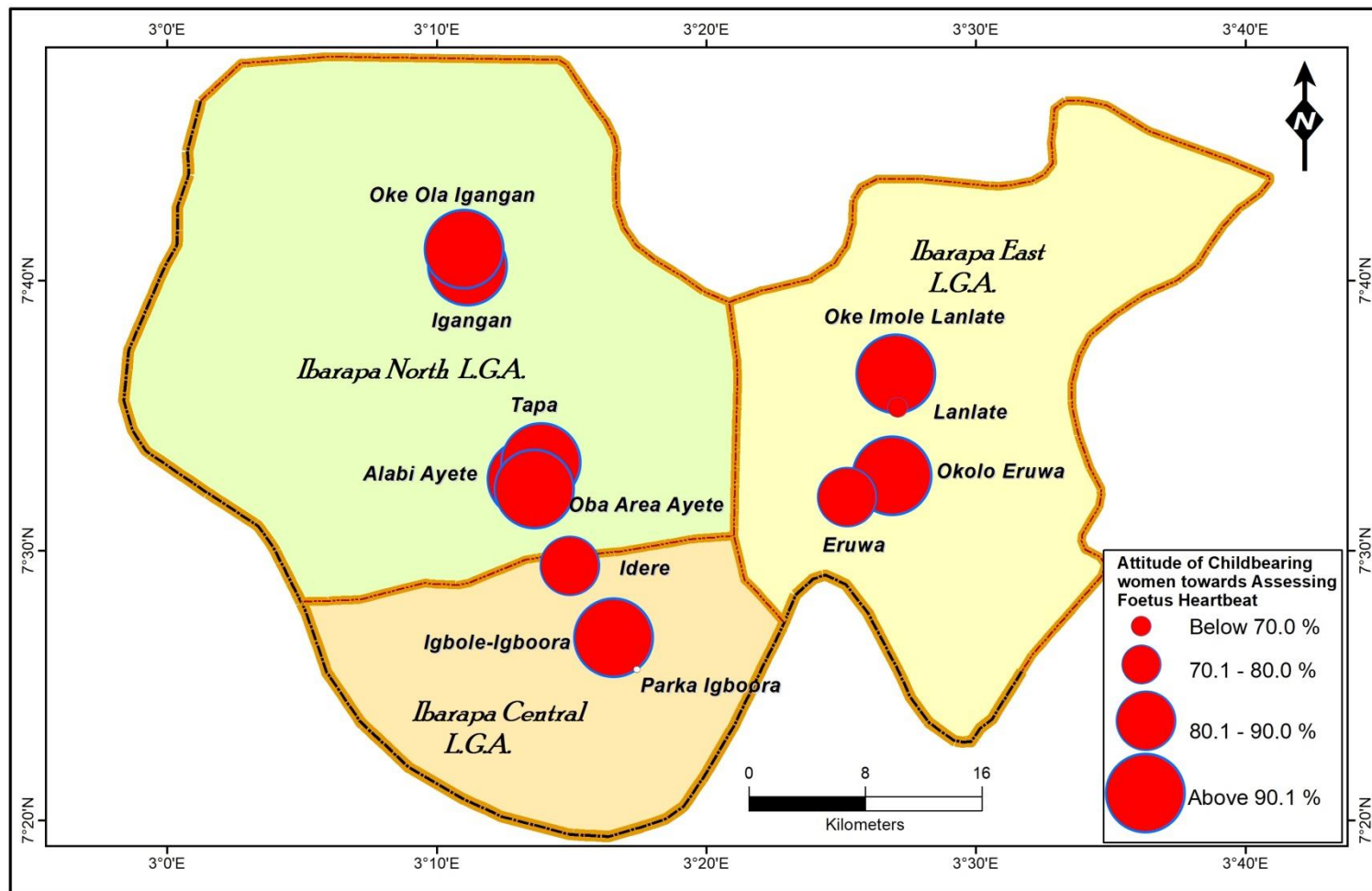
**\*Significant at 5% alpha level**

## **6.11 Spatial Pattern in the Attitude towards Maternal Healthcare Services**

Attitude can be explained as childbearing women's disposition toward performing a given behaviour considering the positive and negative implication (Huang and Chuang, 2007). Hence, the attitude to childbearing women toward maternal healthcare services could be influenced by several factors (availability of service, fund, access, quality of service, individual preference etc.) which vary from one place to another. In this section, the attitude of childbearing women during pregnancy is examined. Childbearing women across the thirteen surveyed communities were asked whether during that last or present pregnancy, they were able to approach the maternal healthcare centres to listen to the heartbeat of foetus, take blood pressure and receive malaria prophylaxis. The results obtained are shown in Figures 6.8 – 6.10.

### **6.11.1 Spatial Pattern in the Attitude of Childbearing Women towards Checking Foetus Heartbeat**

The result in Figure 6.8 shows that 60% of the respondents on spatial pattern in the attitude of child bearing women towards checking foetus heartbeat was low in Lanlate, 70% -80% of them were moderate in Eruwa and Idere and 90%.- 100% of these respondents were high in Alabi Ayete, Igbole-Igboora, Oke-Imole Lanlate, Okolo-Eruwa, Igangan, Oba Area Ayete, Oke-Ola Igangan and Tapa communities which had positive attitude toward maternal healthcare centres as they were able to listen to the heartbeat of their unborn babies during their current or last pregnancy. Childbearing women in these communities know the importance of maternal healthcare services and are able to utilize them during their period of pregnancy. For the childbearing women in Parka-Igboora, the reverse was the case, as none of them visited the maternal healthcare centre to listen to the heartbeat of their unborn babies; this was likely the case in Lanlate where a reasonable number of childbearing women did not make any attempt to listen to the heartbeat of their unborn babies during pregnancy. In all, the result presents an interesting picture as majority of the childbearing women were able to visit the maternal healthcare centres to listen to the heartbeat of their unborn babies during their current or last pregnancy. It again justifies the need for more awareness creation of the need to make use of maternal healthcare centres during pregnancy in order to reduce maternal death and other complications during pregnancy.

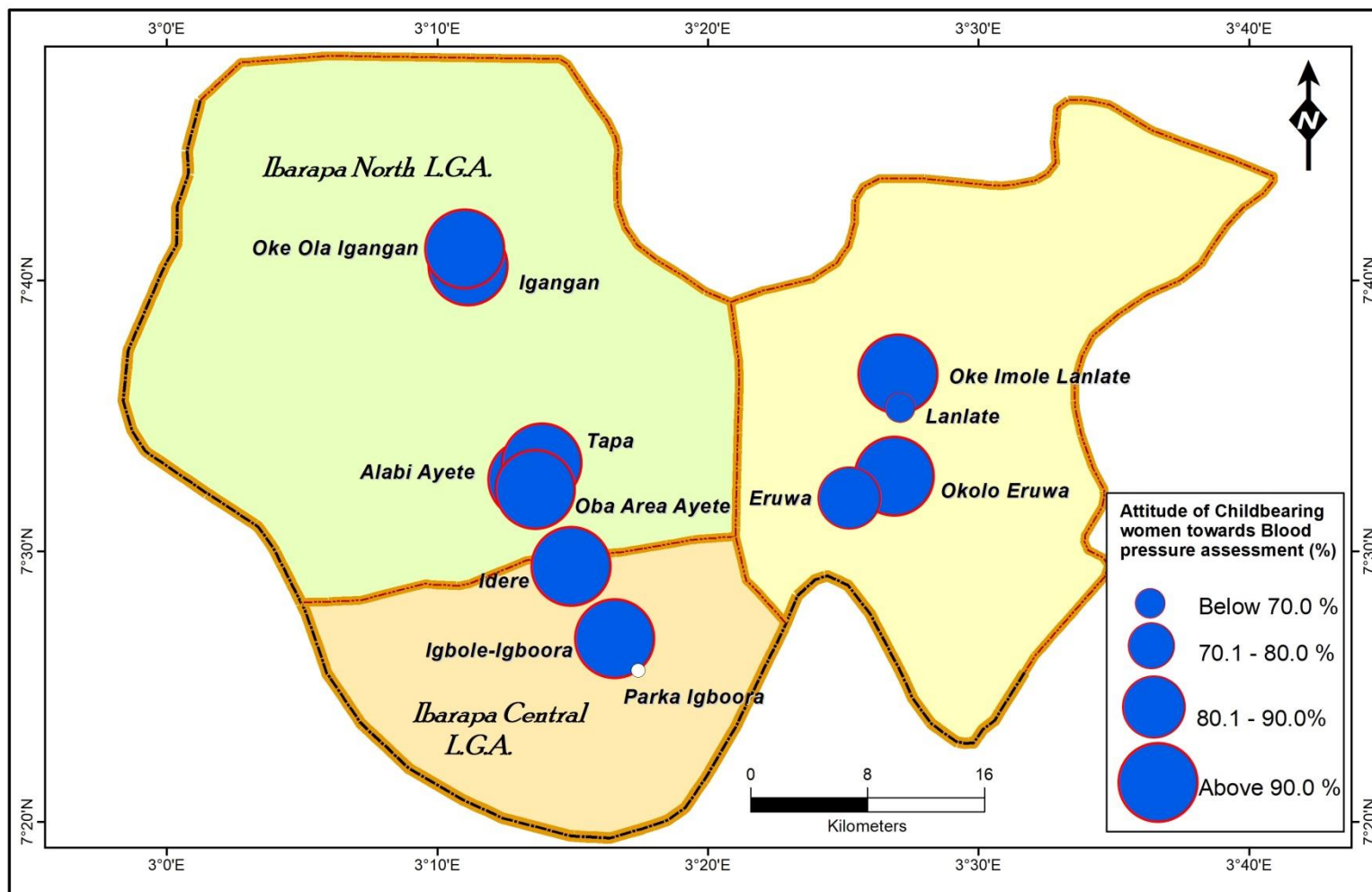


**Figure 6.8: Attitude of Childbearing Women towards Checking Foetus Heartbeat**

Source: Author's Analysis, 2015.

### **6.11.2 Spatial Pattern in the Attitude of Childbearing Women towards Checking Blood Pressure**

The result in Figure 6.9 indicated the spatial pattern in the attitude of child bearing women towards checking their blood pressure. It shows that 60% of respondents in Lanlate checked their blood pressure during pregnancy which was low compared to 89.7% of them who were moderate in Eruwa and above 90% of them was recorded among childbearing women in Alabi Ayete, Igbole-Igboora, Oke-Imole Lanlate, Okolo-Eruwa, Idere, Igangan, Oba Area Ayete, Oke-Ola Igangan and Tapa. Women in these communities were able to check their blood pressure during their current or last pregnancy. Also childbearing women in these communities were able to utilize maternal healthcare centres once during their pregnancy. However, all the childbearing women in Parka-Igboora and some in Lanlate were not able to check their blood pressure during pregnancy. In summary, the result indicates that majority of the childbearing women were able to check their blood pressure during their current or last pregnancy.

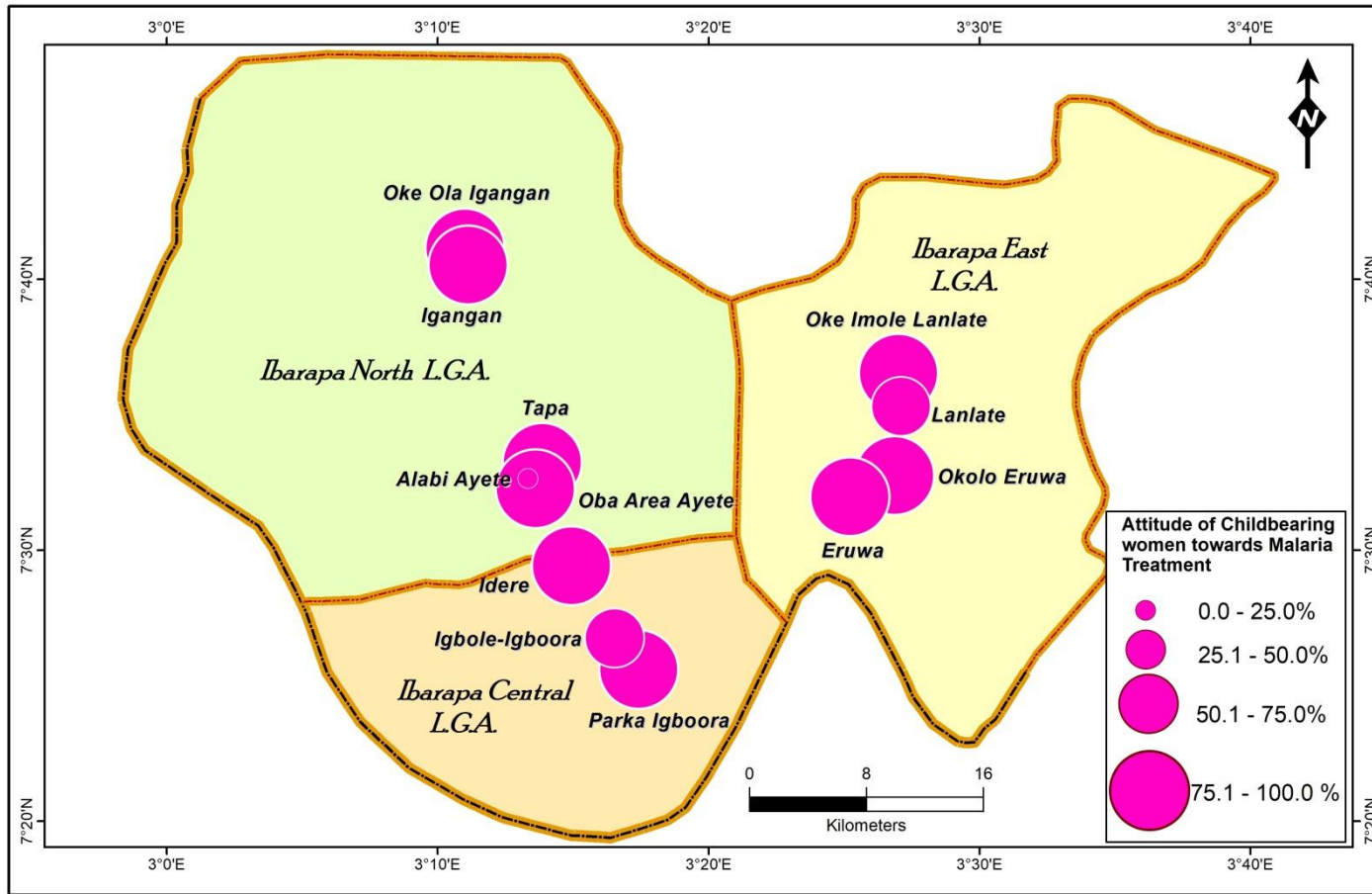


**Figure 6.9: Attitude of Childbearing Women towards Checking Blood Pressure**

Source: Author's Analysis, 2015.

### **6.11.3 Spatial Pattern in the Attitude of Childbearing Women towards Malaria Treatment**

The result in Figure 6.10 reveals that above 90% of the childbearing women surveyed in Oba Area Ayete, Oke-Imole Lanlate, Oke-Ola Igangan, Okolo-Eruwa, Igboora and Tapa received malaria prophylaxis during the current or last pregnancy. This simply implies that the childbearing women in these six communities have a positive attitude and are fully aware of the importance of receiving malaria prophylaxis treatment during pregnancy. Whereas, between 78% and 89% of the respondents had moderate attitude towards malaria treatment during pregnancy in Igbole- Igboora, Eruwa and Igangan. In addition, 56% of the respondents in Lanlate recorded a negative attitude towards malaria treatment during pregnancy. However, in other communities with the exception of Parka-Igboora, majority of the childbearing women received malaria prophylaxis treatment during their current or last pregnancy. In some of these communities such as Lanlate, Eruwa and Igangan not all the childbearing women received malaria prophylaxis treatment during their current or last pregnancy. In addition, the result in Figure 6.10 further reveals that in Parka-Igboora, all the childbearing women surveyed did not receive malaria prophylaxis treatment during their current or last pregnancy. This means that childbearing women in Parka-Igboora, Lanlate, Eruwa and Igangan need to be educated and encouraged to make use of the maternal healthcare centres in their respective communities during pregnancy for different health services.



**Figure 6.10: Attitude of Childbearing Women towards Malaria Treatment**

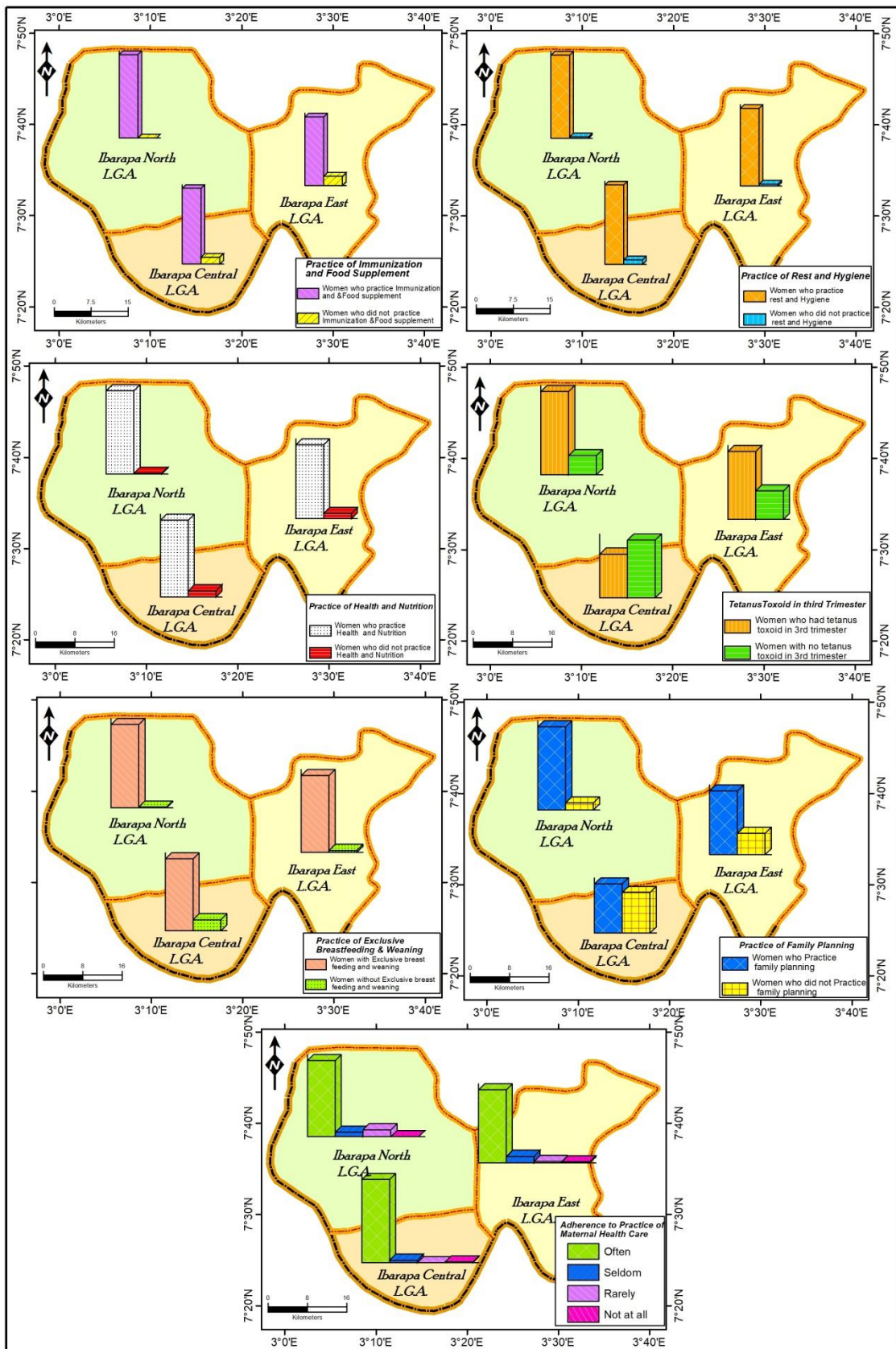
Source: Author's Analysis, 2015.



## **6.12 Practice of Maternal Health Care Services**

The findings in Figure 6.11 shows practice of maternal health care services among women of reproductive age in Ibarapa region of Oyo state. Practice in this study is conceived as a way of life, behavioural and culture which formed the component of attitude towards maternal health services. Therefore, when respondents were asked about their practice of immunization and supplement, 659 (93.2%) said immunization was an integral part of their maternal practice which ensures that their infants or babies are protected and even themselves too. There were only 48 (6.8%) of the respondents who were indisposed to immunization. The practice of rest and hygiene among the women showed that 684 (96.7%) took appropriate rest and hygiene during pregnancy as recommended by clinical educations. They still consider hygiene as very important in the postnatal period. The practice of health and nutrition showed that 627 ( 95.0%) perceived healthy living and balanced diet as an integral part of maternal services that pregnant women should avail themselves to.

There is 459 (64.9%) of the respondents who have tetanus toxic during their third trimester. Also 523 (74.0%) practice family planning, while 662 (94.3%) practice exclusive breast feeding and weaning. However, some inferences could be derived from the findings above. The women in the study area know the importance of orthodox medicine and this propels them to massively seek for the services despite the distance barrier. The use of mass media such as radio, newspaper/magazine, GSM services and perhaps relative/friend stand the major instrument that enlightened women that lived in rural areas to take maternal health care services seriously above what traditional method could supersede. Again, the government effort to intensify campaign of maternal health paid off as more women in the study area were eager to seek the service and utilize it.



**Figure 6.11: Practice of Maternal Health Care Services of Respondents**

Source: Author's Analysis, 2015.

### **6.13 Theoretical and Practical Implications of Findings**

Two theoretical models were adopted in this study. The theories consist of Anderson Model and Attitude, Social Influence and Self Efficacy Model. The discussion in this context is centred on the theories. Looking at Anderson model, the emphasis is placed on environment and population characteristics which influence behaviour toward the use of health care services especially among women. Environment factor emphasises health system in terms of health policy, resources and organization as the case may be hospitals that provide maternal health care services. Within the health environment, there are external factors in the form of physical, political and economic components. Anderson model concluded that the factors in the health environment were important to determine population characteristics in the behavioural disposition to health services, health needs and the enabling environment.

The understanding of Anderson's theory in the context of this study is relevant. Ibarapa region of Oyo state is a composition of women seeking maternal health care services. There was a health environment which prevailed in Ibarapa that either encouraged users to seek orthodox health system or otherwise. In Ibarapa region, findings showed that the prevailing maternal health system was a composition of traditional care centres and modern care centres. The type of resources available in each centre was important determinant of utilisation of health facilities. Findings showed that most TBAs centres in Ibarapa East, North, and Central, had poor equipment and personnel to handle cases of emergency. Findings also showed that these non-orthodox centres manage by traditional birth attendants (TBAs) do not have clean environment which is an important aspect of health. Nevertheless, some pregnant women and nursing mothers in Ibarapa patronized traditional health facilities due to cost of services, husband decision, distance and child birth experience. Similarly, another health system that prevailed in Ibarapa is the modern health services which consisted of general hospitals, maternity centres and cottage health centres. There were also hospitals owned by private individuals. The resources and organization in the orthodox centres in Ibarapa were better and reliable compared to what was obtained in the non orthodox. This environment gave confidence to pregnant women and nursing mothers that they patronized the facilities more than the traditional centres. The health environment in the general hospitals was relatively better than what was obtained in maternity hospitals and cottage health centres. In the general hospitals, there was at

least a Medical Doctor to attend to pregnant women and those that came for postnatal services. The case in the maternity health centres was rather different. There was no maternity centre or health cottage in Ibarapa that had a standby Medical Doctor to attend to pregnant women. Where such happened, it was only on rare cases and the crowd was always very heavy. To buttress this point, a respondent who lived in the rural area of Ibarapa said:

*We do not have doctors to attend to us. There are some nurses who conduct check on us whenever we visit the hospital. But it will also be better if there is a Doctor (FGD/Ibarapa East/2015).*

In the case of the view above, the health resources in most maternity and cottage health centres in Ibarapa lived much to be desired. Yet these are the health resources that were closest to the people. In the root of Anderson's theory are three categories of factors that determine utilisation of health services. The theory identified predisposing characteristics, enabling resources and health need of users. Predisposing characteristics are those features in people such as demographic factors as in the case of pregnancy and child birth that urge desire for utilisation of health facility. Enabling resources provide patients with the means to utilize health services. The need factor refers to health status perceived by individual. Health need in this case was the maternal services which women in Ibarapa region sought. Therefore, relying on the three categories mentioned in Anderson theory, it is obvious that women in Ibarapa were predisposed to seek maternal health services because of the enabling resources and their health needs. It is important to mention that women in Ibarapa accessed and utilized health facilities in the orthodox and non orthodox centres. However, the health seeking behaviour differed and this was affected by many factors in the environment (location of facility), predisposing characteristics (antenatal and postnatal care), enabling resources (availability of Doctors) and health needs (quality of health services).

Furthermore, attitude, social influence and self efficacy model is used. The model looks at behavioural disposition to health object, in this case health facility, the influence of significant and generalised others in the case of husband decision, parents and family friends and self belief in the utilisation of orthodox and non orthodox system. In this study, findings showed that women in Ibarapa exhibited attitude

towards maternal health services especially in the antenatal and postnatal care services. Looking at the model above, it is evident that social influence was an important determinant of attitude and self efficacy in the utilisation of maternal health services. In the study area, most respondents mentioned the role of parents, husbands, friends and religious leaders as determinant of their health decision. One of the respondents who engaged in the focus group discussion said:

*...before I started coming to this hospital I patronized TBAs centres. It was my family friend that encouraged me to change my health care seeking centre. The role of my mother was important. She told me the grave implication of patronizing TBAs.*

This view expressed above was almost similar in the responses of most women who patronized modern health care centres. Some women pointed to the role of their family friends, husbands, siblings, religious leaders and mass media as important in their utilisation of maternal health services. The women in Ibarapa Region developed attitude to health services. While some found comfort to patronize traditional centres, others decided to utilize modern facilities. Findings showed that there was no woman that utilized any facility in Ibarapa Region without antecedence of behaviour and motivation from others. This is often in the direction of orthodox health especially where 83.6% of respondents said they delivered their babies in hospitals and health centres. Looking at the role of social influence therefore, the model can be reconstructed.

## CHAPTER SEVEN

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 7.1 Summary of the Findings

The findings in this study are focused on some objectives. The objectives are designed in the form of questionnaire document and interviews that were conducted among selected respondents in Ibarapa Region. The findings on demographic and socio-economic characteristics reveal some facts that predicted utilisation of maternal health services. Looking at demographic and socio-economic characteristics, there was indication that most respondents were married and lived with their husbands. This ensured that health decision was the role of both husband and wife. However, in most cases husband's decision prevailed in health seeking behaviour among women in Ibarapa region. The marital status among respondents varied along single unmarried, widowed, divorced and married but separated. This ensured that health decision also varied. Ethnic affiliation varied in the study area. Although Ibarapa is a Yoruba dominated area in Oyo State, other ethnic affiliation like Igbo, Hausa, Itsheriki, Ijaw, Igala and host of others resided in Ibarapa. This made the study area multi ethnic. Women that patronized maternal health services were affiliated to different religion groups, Christianity, Islam, and African Traditional religion. Findings showed that although religion was important influence on health seeking behaviour, it was however not in every case. This was because some women despite their religion as Christian or Muslim still found it essential to patronize TBAs in Ibarapa region. The findings also identified some characteristics of women to include family type, education, occupation, age and income. Specifically speaking, 85.7% of the respondents earned less than N20,000 monthly income, while 78.9% were between sixteen and thirty years. Income and age of respondents had some important implication for health seeking behaviour and policy measure as pointed out in the analysis.

Findings reveal aspects of knowledge, attitude and practice which related to maternal health care services. There was knowledge about maternal health care services among women in Ibarapa. Specifically, 98.3% were aware that maternal services existed in different forms of orthodox and non orthodox. The sources of knowledge of maternal services in Ibarapa consisted of hospitals, schools, mass media and friends/family. It

was possible in the study area to utilise radio, television, newspaper/magazine and cell phones as communication facilities to build knowledge of maternal health care. The implication of this is that maternal health information now is readily available to the health seekers especially in Ibarapa region.

Findings on attitude showed that women in Ibarapa exhibited some behavioural dispositions to antenatal and postnatal care services. In the antenatal care services, pregnant women exhibited different feeding habits such as eating one meal per day, two or more different meals per day. Also some pregnant women observed fasting, although this was done by medical advice which was strictly followed. Attitude of pregnant women to some antenatal services were positive. Pregnant women in Ibarapa checked for their weight, heart beat of foetus, blood pressure, blood and urine test and HIV test and other services that were relevant to safe delivery. The postnatal services were utilized by 94.3% of the respondents that participated in the study. The maternal health care services practiced by pregnant women and mothers in the study area included immunization and taking of supplements, rest and hygiene, health and nutrition and family planning and so on. As a result, 90.8% of the respondents often engaged in the practice of services related to maternal health.

Some respondents attested to the fact that teaching hospital, general hospital, cottage health centre, maternity centre and private hospitals were available in Ibarapa. Others pointed to traditional birth attendants, traditional medicine and faith clinic which provided maternal health related services. Accessibility to these health care facilities was rated as high (18.0%), moderate (63.9%) and low (18.1%). The observation from the findings is that general hospitals and teaching hospital were located in the town area and this is some kilometers to rural areas which made it difficult for easy accessibility. Only the maternity and cottage hospital were located near to villages. Yet these small hospitals were under staffed and poorly equipped to handle emergencies. Some respondents in Ibarapa preferred to utilize orthodox medical services to seek maternal health. Some only relied on traditional medicine, TBAs and faith clinics. Yet there were other pregnant women and nursing mothers who combined both orthodox and non orthodox method in seeking maternal health. Specifically, those that utilized non orthodox method were mothers in their third or fourth child experience. These

respondents cited previous experience, cost, husband decision and religion as major influence to utilize non orthodox method.

## **7.2 Conclusion**

The findings in this study were significant for some reasons. Pregnant women and nursing mothers in Ibarapa gained high knowledge of maternal health care services. They could achieve this by means of different sources, hospital, school, mass media and relative/friend. Findings revealed that the respondents utilized some communication facilities, internet, cell phone, radio, television and newspaper/magazine. At the same time when respondents were asked to rate their level of utilisation of the communication facilities they utilised, they rated it high. This finding has some implications. It means that mass media has become an integral part of maternal health care services by means which pregnant women and nursing mothers fortify their knowledge base about maternal health in antenatal and postnatal. Interestingly GSM phones and services have become major drive in mass media to disseminate maternal health.

At the same time, family and friends played vital role to disseminate information about maternal care services. Some respondents evidently mentioned the role of their mother, mother-in-law and close friends to build up their knowledge about maternal health services. This suggests that there is social dimension to maternal health care services and the utilisation of facility thereof. Attitude of nursing mothers was important especially during antenatal and postnatal care services. Some respondents mentioned the role of their husband decision as major influence on their attitude to utilize health facility. Others cited the role of their religious leaders as vital and influential on their attitude to utilize health facility. This suggests that health seeking behaviour of pregnant women and nursing mothers subsists under the major influence of their husbands and sometimes religious leaders. Therefore it follows that utilisation of maternal care facility flow from major decision of husband and perhaps religious leaders who exert influence on the type of facility utilized. This explained the reason for variation in the utilisation of health facility in Ibarapa where some utilized orthodox and others utilized non orthodox or mixed facility.



Findings showed that women in the rural area of Ibarapa were discouraged to utilise general hospitals. This was partly because these hospitals were located in major towns where local government secretariat resided. Again the distance to general hospital was some kilometers to rural areas. Road network that linked rural and semi rural was dilapidated which did not allow for free and smooth flow of transportation. Pregnant women had to trek long distance sometimes in kilometers before they could access available transport. This was a major bottleneck that pregnant women in Ibarapa confronted. Findings also showed that those that patronized non orthodox did so because they could not access available orthodox facility. The implication of this is that distance is a major determinant to utilise health facility especially in the study area. It was apparent in the study area that maternity and cottage health centres were most utilized by pregnant women and nursing mothers. The reason that accounted for this was that maternity centre was nearest to people. There was no cost of transportation for most women to access cottage hospitals. However, there was none of the maternity and cottage centres that were equipped to handle emergency.

The preference for utilisation revealed one major fact. There were those pregnant women in Ibarapa Region that utilised orthodox and others opted for non orthodox or mixed facility. Also belief system constitutes an integral part of the utilisation of health facility. Despite the option by some women to utilise non orthodox in Ibarapa, many of the traditional care givers did not have clean environment, equipment to handle emergency and some of the buildings used were poorly ventilated. This is a major challenge to maternal care services and the safety thereof.

### **7.3 Recommendations**

The study identifies some recommendations. This is however based on major findings on spatial variation in maternal health-seeking behavior in Ibarapa Region, Oyo State, Nigeria.

In the findings the knowledge base of pregnant women and nursing mothers was high. This was made possible because of availability of mass media which ensured that women got information about maternal care services. In particular cell phones have contributed immensely to information about maternal health care services. Invariably this impacted attitude and practice of maternal health services. It is strongly

recommended that stakeholders in maternal health services (government, private investors and pregnant/nursing mothers) should mainstream mass media as a means to disseminate maternal care services. This will ensure that women get information about maternal health, provide guide during pregnancy period and safe delivery. In addition, there should be adequate and continuous sensitisation of women and their husbands by government on the need to adopt orthodox solutions and facilities.

Distance was a major challenge to women in Ibarapa to utilise hospitals that were better equipped in the major towns. Most women in the rural areas opted for less equipped cottage hospitals and maternity centres that could not handle cases of emergencies. There were no accessible roads in many parts of the rural locations that linked the major towns. This constituted major bottleneck to utilisation of facilities. At the same time it put the life of mother and child to high risk where there is no medical professional and equipment to attend to patients. It is strongly recommended that government should design a policy that transcends maternity and cottage health centres to auxillary services or annex of general hospitals to allow for better service. This will ensure that medical officers and personnel in general hospitals do oversight function to various maternity and cottage hospitals they are affiliated. Or at the same time, government should open up access roads to rural areas that may allow for easy transportation and accessibility to major towns where general hospitals are located. Furthermore, more maternal health care facilities should be built in rural areas to address the issue of proximity through public private partnership with NGOs.

Investigation in the study showed that there is no proper physical planning and setting approved by the local town planning authority. However, the non compliance to geographical plan in rural Ibarapa ensured that residents built houses indiscriminately which did not allow for free flow of water during rainy season. This ensured that access roads were damaged by erosion with little or no control measure. It is strongly recommended that government should enforce environmental laws to check abuses and safeguard the environment from further damage. This may also help to preserve roads constructed by government and allow easy accessibility to health facility.

Findings showed that traditional birth attendants (TBAs), traditional herbalist and faith clinics were still relevant to some pregnant women and nursing mothers in Ibarapa. This was because they patronised the services. Yet most of the non orthodox in Ibarapa lacked equipment to handle emergency. They lacked technical know-how to scan and conduct checks for pregnant women. The TBAs continued to exist and patronized in Ibarapa and many other areas. It is strongly recommended that government should regulate activities of non-orthodox health providers by integration of non-orthodox medical practitioners into health care sector. This may be done through certification license that allows non orthodox to operate. The certification should measure up and emphasise safety, cleanliness, personnel, geographic terrain and ventilation that contributed to maternal health.

Attitude of Nurses in general hospitals in Ibarapa was one of the major determinant that influenced the utilisation of maternal health care services. Some pregnant women complained about unfriendly nature of Nurses and their aggression which contributed to non challant attitude to orthodox health services. It is strongly recommended that hospital management should engage their medical personnel in seminar and workshop that focus on human resource management. Hospitals should now be seen as a social setting where emotions are preserved and interest of all are protected. Also there is the need for the repositioning of government maternal health care sector through robust reforms that focus on personel and facilities.

The findings identified some barriers to utilisation of maternal health services in Ibarapa. These included cost of service, lack of knowledge about existing services, availability of equipment/facilities, schedule of maternal care services, distance, transport facility, religion and waiting time and so on. These barriers were identified to point to limitation that really confronted women in Ibarapa to seek maternal services in the orthodox centres. It is strongly recommended that stakeholders in maternal health should mainstream these problems to eliminate or at least reduce them to barest minimum.

#### **7.4 Contribution to Knowledge**

This study explored some important contributions to knowledge.

The findings showed that the clustered nature of health care facilities in Ibarapa Region determined the utilisation pattern of maternal health services. In this case, women that lived in the inner rural areas exclusively patronised TBAs and Herbalists. They believed that they were close to nature i.e. green leafs and forest. Therefore the gods of the forest were original and truthful to deliver their babies. The settlement in the semi rural areas combined orthodox and non orthodox, while those in towns mostly patronised orthodox services. The semi rural and town areas had relatively accessible roads and drainage. However spatial distribution in Ibarapa town was better and easily accessible. Development was concentrated in the major towns. General hospitals and most private hospitals were located in major towns in Ibarapa region. The rural areas were more like agrarian which had no open access roads. There were little or no amenities in these areas Clustered nature of health care facilities, therefore contributes to variation in the utilisation of facilities.

Knowledge, attitude and practice were integral part of the utilisation of maternal health care service. Findings revealed that women in Ibarapa had high knowledge of maternal health. This was achieved by communication facilities which served as a major source of information. Consequently, the knowledge base influenced attitude exhibited towards maternal facilities which was positive and this encouraged the practice of maternal health services. Findings showed that most respondents utilised maternal services. Some respondents who ranked their utilisation as low complained about lacking information regarding the services.

There is social dimension to utilisation of maternal health facilities. Findings showed that despite easy access to orthodox facilities, some women still considered non orthodox better. They cited husband decision, religion, friends and mother-in-law as major influence on their health decision. Some women attested to the fact that they could not take any health decision without the approval of their husbands.

There is variation in the utilisation of maternal health facilities between women in monogamy marriage and women in polygamy marriage. From cross tabulation analysis, women in monogamy marriage were high (79.8%), moderate (15.5%) and

low (4.7%) in the rank of utilisation of facility. Women in polygamy marriage were high (41.9%), moderate (23.8%) and low (34.3%) on the rank of utilisation. The factors responsible for this were connected to finance, religion and family decision. Findings showed that women in monogamy marriage had better financial capacity than those in polygamy because of family size. Also the women in monogamy and their husbands were mostly Christian faith. Family decision was jointly taken by couple. At other end, women in polygamy marriage were mostly Muslim and family decision was the sole authority of husbands. Most women in this group attested that they committed more financial resource to their maternal service than the commitment made their husbands.

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## APPENDIX I

### LIST OF HOSPITALS IN IBARAPA NORTH LOCAL GOVERNMENT.

Name of Hospital	Average deliveries per month		
1. Igangan maternity centre oke ola, Igangan.	25	ward	5
2. Six bed primary health centre isale akao, Igangan.	18	ward	4
3. Millennium development goals health centre idi-ope,Igangan.	5	ward	5
4. Maternity centre asunara village,Igangan.	10	ward	8
5. Maternity centre Idiyan village, Igangan.	10	ward	8
6. Maternity centre akoya village,Igangan.	12	ward	8
7. Maternity centre Abidioki village,Igangan.	8	ward	8
8. Victory foundation private hospital Akoya road, Igangan.	12	ward	5
9. Adaba private hospital Igangan.	20	ward	4
10. Tapa Maternity centre, Tapa.	15	ward	1
11. MDG health centre ,Idi-osa, Tapa.	12	ward	9
12. Ayete maternity centre, Ayete.	18	ward	2
13. Oyo state Govt General hospital, Ayete.	8	ward	1
14. Maternity centre Alabi Village, Ayete.	8	ward	7
15. Maternity centre Alagbaa village, Ayete.	12	ward	7
<b>Non-orthodox Hospitals.</b>			
1. Iya abiye delivery home,Isale akao, Igangan.	16	ward	4
2. Iya odua delivery home,olowu,Igangan.	12	ward	5

### IBARAPA NORTH LOCAL GOVT POLITICAL WARDS

1. Ayete 1
2. Ayete 2
3. Isale-oja ,Igangan.
4. Isale –akao,igangan.
5. Oke-ola, Igangan.
6. Igitele, Igangan.
7. Ofiki 1 Tapa and Ayete.
8. Ofiki 2 Igangan.
9. Tapa 1.
10. Tapa 2.

Source: Department of Health Ibarapa North LGA, November, 2012.

**IBARAPA CENTRAL LOCAL GOVT ORTHODOX HOSPITAL.**

1. Igboora comprehensive hospital,Igboora	19	ward 8
2. Maternity centre , Igbole , Igboora.	16	ward 7
3. Maternity centre, sagaun, Igboora.	14	ward 6
4. Maternity centre isale oba,Igboora.	14	ward 8
5. Maternity centre oko odo, Igboora.	18	ward 10
6. Maternity centre Ayeda, Idere.	20	ward 1
7. Six beds hospital, Idere.	6	ward 1
8. Merk mercy hospital,igbole, Igboora.	20	ward 7
9. Olugbon clinic , Igboora.	36	ward 9
10. Wesley Memorial maternity home,Towobowo, Igboora.	12	ward 4
11. Aanu Oluwa clinic, isale -penbo, Igboora.	14	ward 5
12. Adua clinic, Olorunsogo, Igboora.	14	ward 7
13. Redeem church maternity home, Imeleke, Igboora.	8	ward 6
14. Aanu oluwapo hospital, idere.	12	ward 1
15. Abola maternity centre,alagba road	10	ward 1
16. Origi maternity centre	14	ward 2

**IBARAPA CENTRAL LOCAL GOVT POLITICAL WARDS.**

- 1 Idere 1
- 2 Idere 2
- 3 Idere 3
- 4 Iberekodo, Igboora.
- 5 Iberekodo-Ago oro, Igboora.
- 6 Idofin –sagaun, Igboora.
- 7 Igbole-pako, Igboora.
- 8 Isale –oba, Igboora.
- 9 Oke-iserin,Igboora.
- 10 Oke-odo,Igboora

### **Non-orthodox Hospitals**

1. Iya Abiye Oke-odo, Igboora
2. Eegunbambi Okanlawon Traditional Home, Abaara Compound, Pako, Igboora.
3. Kerubim and Seraphim Church, Isale, Penbo, Igboora.

Source: Department of Health Ibarapa Central LGA, November, 2012.

### **IBARAPA EAST LOCAL GOVT ORTHODOX HOSPITAL**

1	State govt general hospital Eruwa.	24 ward 6
2	Maternity hospital Anko,Eruwa.	18 ward 2
3	Maternity hospital oke-ola, Eruwa	18 ward 4
4	Maternity hospital oke-oba, Eruwa.	16 ward 10
5	Maternity hospital New eruwa,eruwa.	14 ward 5
6	Maternity hospital, Temidire, Eruwa.	20 ward 3
7	Maternity hospital, okolo,Eruwa.	10 ward 6
8	Maternity hospital ijesha village,Eruwa.	12 ward 10
9	Oyo state govt general hospital Lanlate.	18 ward 7
10	Maternity hospital oke-imale, Lanlate.	28 ward 7
11	Maternity hospital Agasga estate, lanlate.	16 ward 7
12	Maternity hospital Maya, Lanlate.	22 ward 8
13	Awojobi private clinic ,Eruwa.	46 ward 6
14	Oluwatooki Memorial private clinic ,Eruwa.	14 ward 2
15	Rehoboat nursing and maternity private clinic, Eruwa.	16 ward 4

### **2**

### **Non-orthodox Hospitals**

1. Agbomola Traditional Home Atiwolefa Compound, Aborerin, Eruwa.
2. Deborah Traditional Home Elewunla Compound Aborerjin, Ewuwa.
3. Rafat Traditional Home New Eruwa, Olowopooku, Eruwa.
4. Durowoo Traditional Home Oke-Oba, Eruwa.
5. Akaso Traditional Home Agasha Area, Lanlate.
6. Ayinla, Ogbegi Traditional Home, New Eruwa, Eruwa.
7. Baba Ile Abaara, Eruwa.

**LIST OF POLITICAL WARDS IN IBARAPA EAST LOCAL GOVT.**

1. Oke-oba,eruwa.
2. Anko, eruwa.
3. Isaba and Temidire, eruwa.
4. Aborerin and his environs.
5. New-eruwa and Olori village.
6. Sango and Okolo ,eruwa.
7. Oke-imale, lanlate.
8. Isale-baale, lanlate,
9. Oke –otun and owode, lanlate.
10. Itabo and alapa, lanlate.

Source: Department of Health Ibarapa East LGA, November, 2012

**APPENDIX II**  
**WOMEN OF REPRODUCTIVE AGE CONSENT FORM**

**SPATIAL VARIATIONS IN FACILITY UTILISATION AND MATERNAL HEALTH SEEKING BEHAVIOUR IN IBARAPA REGION, OYO STATE.**

**Education:** Goodday madam. My name is Lasisi Chidinma Joy. I am a Ph.D student of the department of Geography, Faculty of the Social Sciences, University of Ibadan. I am behavouring a research that proposes to analyze geographical variations in facility utilisation and maternal health seeking behaviour of women of child bearing age (15-49)years in Ibarapa Region, Oyo state. This study has been reviewed and granted approval by the Oyo State Research Ethical Review Committee, Ministry of Health, Secretariat, Ibadan.

Your participation in this research will be appreciated. The information you supply will help the government and other health stakeholders to plan and provide better health care facilities for women of reproductive age. The interview will take between 20 and 30 minutes and all information you supply will be kept strictly confidential. Participation in the research is completely voluntary. If there is any question you prefer not to answer, please tell me so i can skip to the next question. You are also free to stop the interview at any time. I will however appreciate your participating in this survey as your responses are highly important.

**Consent:** Now that the study has been well explained to me and I fully understand the content of the process, I will be ready to take part in the programme.

.....  
Signature/Thumbprint of participant

.....  
Interview Date

.....  
Signature/ Thumbprint of witness & Date

**APPENDIX III**

**UNIVERSITY OF IBADAN, IBADAN  
FACULTY OF THE SOCIAL SCIENCES  
DEPARTMENT OF GEOGRAPHY**

Serial No:.....

Dear Respondent,

This questionnaire seeks information on Healthcare Facility Utilisation and Maternal Health-seeking Behaviour in Ibarapa Region, being a Ph.D research. Please, provide as detailed information as you can. All information provided will be used for academic purposes only.

Location.....

Settlement.....

LGA.....

Ward.....

Name of Facility.....

Type of Facility.....

**SECTION A: DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS IN  
MATERNAL HEALTH SEEKING BEHAVIOUR**

1. Age as at last birthday.....  
(Years)
2. Family type: (i) Monogamy (ii) Polygamy (iii) Single parent
3. Marital status: (i) Single (ii) Married (iii) Widowed (iii) Divorced (iv) Separated
4. Ethnic group: (i) Yoruba (ii) Hausa (iii) Igbo (iv) Others (specify).....
5. Religion: (i) African Traditional Religion (ii) Christianity (iii) Islam (iv) Others (Specify).....

6-8. Socio-economic Characteristics of Respondents

Characteristic	Status	Husband	Wife
Education	No formal education		
	Primary school		
	Senior secondary school and JSS		
	WASCE/GCE/NECO		
	Technical college/vocational centre		
	OND/NCE		
	HND/B.Ed/B.Sc degree		
	Postgraduate degree		
	Others specify		
	No formal education		
Occupation	Housewife (Unemployed)		
	Self employed (trader)		
	Farmer		
	Private sector employee		
	Professional (artisan)		
	Civil servant		
	Others (Specify)		
Average Monthly Income	None		
	Below ₦5,000/month		
	₦5,001- ₦10,000/month		
	₦10,001- ₦15,000/month		
	₦15,001- ₦20,000/month		
	₦20,001- ₦25,000/month		
	₦25,001and above/month		
	None		



**SECTION B:**  
**KNOWLEDGE, ATTITUDE AND PRACTICES OF MATERNAL HEALTH  
 CARE SERVICES AMONG REPRODUCTIVE AGE WOMEN**

**(i) KNOWLEDGE OF MATERNAL HEALTH CARE SERVICES**

9. What type of communication facility do you use?  
 (i) Radio (ii) Television (iii) Newspaper/Magazine (iv) The Internet (v) Telephone/Cellular phones (vi) Others (specify).....
10. Have you heard of maternal health care services before? (i) Yes (ii) No
11. If “yes”, what is your source of information?  
 (i) Hospital (ii) School (iii) Mass media (iv) Relative/friend (v) Others specify.....
12. In your opinion, what is maternal health care service?  
 .....  
 .....  
 .....
13. Which of the following services are rendered at your maternal health care centres?

S/N	Services	YES	NO
i	Preconception care		
ii	Antenatal care		
iii	Delivery care		
iv	Postnatal care		
v	Competent staff		
vi	Provision of medicine		
vii	Cleanliness and comfort		
viii	To facilitate delivery		
ix	Protect mother and child against complications		
x	Family planning		
xi	Immunization		

14. Provide information about your children in order of birth.

S/N	Sex	Age as at last birthday (years)
I		
Ii		
Iii		
Iv		
V		

**(ii) ATTITUDES OF WOMEN TOWARD MATERNAL HEALTH CARE SERVICES**

15. What is your feeding habit like during pregnancy?

(i) One meal/day (ii) Two meals/day (iii) Three meals/day (iv) Others specify.....

16. Do you observe a fast on religious ground during pregnancy? (i) Yes (ii) No

17. If “Yes”, do you seek medical advice before embarking on religious fasting?

(i) Often (ii) Sometimes (iii) Nil

18. During your pregnancy period, did you attend any antenatal care services in a health facility?(i) Yes (ii) No

19. Place of antenatal care (ANC) attendance.....

20. At what point or time of the pregnancy do you need to see a physician?

(i) Before 3 months (ii) 3 – 6 months (iii) 6 – 9 months (iv) After 9 months (v) None of the above

21. How many times did you visit a modern health care facility for antenatal care?

(i) None (ii) 1 visit (iii) 2 visits (iv) 3 visits (v) 4+ visits (vi) Cannot remember (vii) Others specify.....

22. Timing of first prenatal visit: (i) 1<sup>st</sup> to 4<sup>th</sup> month (ii) 5<sup>th</sup> month (iii) 6<sup>th</sup> month

(iv) one month before delivery (v) When there is a problem (vi) Others specify

23. State the reasons for seeking antenatal care.....

24. During this pregnancy, were any of the following done at least once?

S/N	Services	Yes	No
I	Weigh mother		
ii	Listen to heartbeat of foetus		
iii	Take blood pressure		
iv	Blood and urine test		
v	Tetanus vaccination		
vi	Gynecological exam		
vii	Anemia evaluation		
viii	Receive malaria prophylaxis		
ix	Receive medicine/iron tablets		
x	HIV test		
xi	Counsel on danger signs		
xii	Counsel on birth preparedness		
xiii	Others specify		

25. Where did you deliver your last baby? (i) Hospital/ health centre (ii) At home (iii) At the faith clinic (iv) With the traditional birth attendants (TBAs) (v) No one in attendance (vi) With a trained health care provider

26. Mode of delivery: (i) Spontaneous delivery (ii) Assisted delivery (iii) Caesarian section

27. Do you make use of post-natal care services? (i) Yes (ii) No

28. Timing of post-natal visit after a delivery:

S/N	Moment after delivery	(Tick)
I	1week	
ii	15days	
iii	5-6weeks	
iv	If there is a problem	
V	Others specify	

29. Do you use any of the family planning methods? (i) Yes (ii) No
30. If “Yes”, state type of family planning used.....
31. Who is the person responsible for family planning? (i) Both partners (ii) Either partner (iii) Others (specify).....
32. How effective is the family planning method you are using?  
 (i) Very effective (ii) Effective (iii) Ineffective (iv) Very ineffective
33. Are there any negative effects of the family planning method you are using?  
 (i) Yes (ii) No  
 If “Yes”, state the effects.....

**(iii) PRACTICES OF MATERNAL HEALTH CARE SERVICES**

34. What are the maternal health practices you are aware of?

S/N	Maternal health practices	YES	NO
I	Immunization and supplements		
ii	Rest and hygiene		
iii	Health and nutrition		
iv	Tetanus toxoid during third trimester		
v	Family planning		
vi	Breast feeding and weaning		
vii	Others specify		

**SECTION C: AVAILABILITY AND ACCESSIBILITY IN THE UTILISATION OF MATERNAL HEALTH CARE SERVICE**

35. What type of health care facilities are available for you?

S/N	Facilities	Yes	No
I	Teaching hospital		
ii	General hospital		
iii	Medical centre (cottage hospital)		
iv	Maternity centre		
V	Private-owned medical clinics		
vi	Traditional birth attendants (TBA attendants)		
vii	Traditional medicine (unorthodox practitioners)		
viii	Faith clinics		
ix	Others specify		

36. How near is your residential area from the nearest maternal health care centre?

(i) Very near (ii) Near (iii) Far (iv) Very far

37. How far (approximate distance) is your residence from the nearest maternal health care centre of your choice?

(i) Less than one km (ii) 1.1 – 2 km (iii) 2.1 – 3 km (iv) 3.1 – 4km (v)4.1-5km (vi) 5km and above

38. How many minutes does it take you to reach the maternal health care centre of your choice?

(i) Less than 10 minutes (ii) 10 – 20 minutes (iii) 30 – 40 minutes (iv) 50 – 60 minutes (v) More than 1hour

39. Do you think that the distance to the maternal health care centre would influence your utilisation?

(i) Yes (ii) No

40. What are the effects of distance in the utilisation of health care services?

.....

41. What is your mode of commuting? (i) Trekking (ii) Bicycle (iii) Motorcycle / Okada (iv) Tricycle (v) Kabukabu (iii) Private Car (iv) Bus (v) Van

42. Does any member of your household own:

(i) Bicycle (ii) Motorcycle (iii) Bus (iv) Car (v) Others specify.....

43. What is the level of your access to the maternal health care centres in your place of residence?

(i) Very high (ii) High (iii) Moderate (iv) Low (v) Very low

**SECTION D:  
PREFERENCE IN THE UTILISATION OF MATERNAL HEALTH CARE  
FACILITIES**

44. Indicate your preference in the utilisation of the following health facilities

S/N	Preference in utilisation	Often	Rarely	Sometimes	Nil
I	The orthodox medicine				
Ii	Traditional medicine (plants, roots and herbs)				
Iii	Prayer/faith clinics owned by the churches				
Iv	Traditional birth attendants				
V	Orthodox and traditional medicine				
Vi	Prayer/faith clinics and traditional medicine				

45. What are the reasons for preference in utilisation?

(i) Nature and severity of the ailment (ii) nearest and accessible maternal health care service (iii) Others specify.....

46. Is your preference effective for you? (i) Yes (ii) No

47. If “yes”, how effective is your choice of any of the health care service centres?

(i) Very effective (ii) Effective (iii) Ineffective (iv) Very ineffective

48. Who takes major decision about your maternal health-seeking services?

(i) Husband/partner (ii) Woman herself (iii) The extended family members (iv) The religious leaders of my religious affiliation (v) Friends/neighbours (vi) Others specify.....

49. Does your belief system support the use of alternative medicine? (i) Yes (ii) No

50. If “Yes”, what are the reasons?

(i) Efficiency (ii) Health ingredients (iii) Failure of orthodox medicine (iv) Cheap and affordable

51. If “No”, what are your reasons?

(i) Mystical (ii) No expiry date (iii) Unregulated dosage for use (iv) Does not provide the required cure for the ailment (v) Unpleasant odour

52. Do you use modern health-care services in your location? (i) Yes (ii) No

53. If “Yes”, what is the level of your utilisation? (i)Very high (ii) High (iii) Moderate (iv) Low (v) Very low
54. How do you perceive the modern health care services? (i) Beneficial (ii) Wasteful (iii) Indifferent
55. Do you consider modern health care service essential for all women? (i) Yes (ii) No
56. Have you ever benefited in the utilisation of any modern health care services in your area? (i) Yes (ii) No
57. Barriers to utilisation of maternal health care services

S/N	Barriers	Yes	No
I	Do not know where to go		
Ii	Getting permission to go		
Iii	Language barrier		
Iv	Too expensive		
V	Lack of knowledge about the existing services		
Vi	Availability of facilities/equipment		
vii	Attitude of health care providers		
viii	Accessibility of maternal health care services		
Ix	Schedule of maternal health care service		
X	Traditional or religious reasons		
Xi	No health insurance		
xii	Husband’s acceptance of services		
xiii	Previous history of complications		
xiv	Previous experiences of the services		
Xv	Distance to health center		
xvi	Having to take transport		
xvii	Waiting time		
xviii	Not wanting to go alone		
xix	Concern that there may not be a female health provider		
Xx	Receiving medical care not necessary		
xxi	My belief system does not support it		
xxii	Others specify		

## ASOMO IV

### FOOMU AWON IYALOMO

#### AWON AYIPADA/IYATO NINU ISAMULO IPESE ILERA ALABOYUN ATI ATI BI WON TI SE KOBİ ARA SI I NI AGBEGBE IBARAPA NI IPINLE OYO

**Itonisona:** E ku ikale arabinrin. Oruko mi ni Lasisi Chidinma Joy. Mo je akekoo lori iko ijinle omowe (PhD) ni eka eko ti a ti n ko nipa ile aye ati oju ojo (Geography Department), abala ti a ti n ko eko lori sayensi awujo (Faculty of Social Sciences), Ogba Ifafiti ti ilu Ibadan. Mo n se ise iwadii ijinle kan lati se atupale iyato ajemo oju ojo laarin isamulo ipese ilera alaboyun ati ati bi awon iyalomoo laarin odun meedogun si odun mokandinlaadota (15-49 yrs)ti se kobi ara si i ni agbegbe Ibarapa ni Ipinle Oyo. Awon igbimo ti o maa n se agbeyewo iwadii ijinle lati ri i daju pe o tele ilana asa ise iwadii ijinle, eyi ti o wa ni eka eto ilera, ni ile ise ijoba ipinle Oyo ti se agbeyewo ise yii, won si ti fowo si i.

Inu wa yoo dun bi o ba kopa ninu ise iwadii yii. Awon alaye/imo ti o ba pese yoo ran ijoba ati awon miiran ti o ni se pelu eto ilera lowo lati seto bi won yoo ti pese ilera to to yanrannti fun awon iyalomoo. Iforowanilenuwo yii yoo gba to ogun iseju si ogbon iseju. Bakan naa, gbogbo awon alaye tabi oro re ni a o se ni bonkele. Atinuwa ni kikopa ninu ise iwadii yii, kii se afipamunise rara. Bi o ba ri ibeere ti o ko fe pese idahun fun , jowo je ki n mo ki a le gbe iyen ti si egbe, ki a si lo si ori ibeere miiran to kan. O tun le mu iforowanilenuwo yii wa si opin nigbakuugba. Sibesibe, inu mi yoo dun si kikopa re ninu ise yii tori pe awon idahun re se pataki pupo.

**Ifowosi:** Wayi o, a ti salaye ise yii fun mi yekeyeke, mo si ti mo awon akoonu re, ma a se tan lati kopa ninu eto naa.

.....  
Ifowosi/Iteka akopa

.....  
Ojo iforowanilenuwo

.....  
Ifowosi/Iteka Elerii ati Deeti



**UNIVERSITY OF IBADAN, IBADAN**  
**FACULTY OF SOCIAL SCIENCES**  
**DEPARTMENT OF GEOGRAPHY**

Nomba (ni telentele).....

Apa/ Ipo Itedo ..... i itedo .....

Ijoba ibile ..... Woodu .....

Oruko ohun amayederun ti a pese ..... Irufe ohun Irorun .....

Abena Imo/Oludahun Tooto,

Iwe isebeere yii wa fun gbigba alaye lori ipese ilera ata bi ati n se amulo ati wiwa itoju alaboyun ni agbgbe Ibarapa. Ise yii jemo iwadii lori ikekoo-gboye-omowe (PhD). E jowo, e fun wa ni gbogbo alaye to ba wa ni ikapa yin. Eto eko nikan soo ni a o lo gbogbo oro/alaye yin fun.

**IPIN A: IPA, ISESI EDA ATI ETO ORO AJE PELU AWUJO NINU NINAANI ETO ILERA ALABOYUIN**

1. Iye odun re ni ojo ibi re to gbeyin. ....
2. Orisii ebi: (i) Oko kan aya kan (ii) alaya pupo (iii) baba/iya nikan (iv) Imiran
3. Liloko/Lilaya: (i) Apon/Omidan (ii) Loko/Laya (iii) Opo (iv) Jawe ikosile (v) Pinya (vi) Imiran (So fun wa).....
4. Eya: (i) Yoruba (ii) Hausa (iii) Igbo (iv) Imiran (So fun wa).....
5. Esin: (i) Esin Adulawo/Ibile (ii)Esin Kirisiteeni (iii) Isilaamu (i) Imiran (So fun wa) .....
6. Awon Abuda Ajemo-Oro-Aje ati Awujo Oludahun.

<b>Abuda</b>	<b>Ipo/Aaye</b>	<b>Bee ni</b>	<b>Bee ko</b>
Eko mo-on-ko-mo-on-ka	Ko ni eko mo-on-ko-mo-on-ka		
	Ile eko alakoobere		
	Ile eko girama olodun meta onipele akoko (JSS)		
	Ile eko girama olodun meta onipele keji (SSS)		
	Ile eko ekose owo		
	Ile eko gbogbonise(OND)/Ile eko olukoni onipo keji (NCE)		
	Ile eko gbogbonise(HND)/Imo Ijinle akoko(B Ed/B		

	Sc.)		
	Eko leyin imo ijinle akoko		
	Imiran (So fun wa)		
Ise	Iyawo ile nikan soo		
	Ise adani		
	Agbe		
	Sise pelu ile ise aladani		
	Onise ona		
	Osise ijoba		
	Imiran (So fun wa)		
Iye ti owo osu re je/sun mo	Ko si		
	O kere ju egberun maru-un losu		
	Egberun marun-un si mewaa losu		
	Egberun mewaa si meeedogun losu		
	Egberun meeedogun si ogun egberun-un losu		
	Ogun egberun si egberun meeedogbon losu		
	O ju egberun meeedogbon lo losu		

**IPIN B: IMO, ISEWAHU, ATI IPESE ILERA LARIN AWON ALABOYUN  
IMO NIPA IPESE ILERA AWON ALABOYUN**

7. Nje o ti o gbo nipa ipese ilera itoju alaboyun ri? (i) Bee ni (ii) Bee ko
8. Bi o ba je ‘Bee ni’, nibo lo to gbo? (i) Ile iwosan (ii) ile iwe (iii) Lori afefe (iv) Ebi/Ore (v) Imiran (So fun wa) .....
9. Irufe ona ibara-eni-soro wo lo n lo?  
(i) Redio (ii) Ero mohun-maworan (iii) Iwe iroyin atigbadegba / magasininni (iv) Ero amayelujara (v) Telifoonu/Ero ilewo (vi) Imiran (So fun wa) .....  
To awon ona ti o n gba lati gbo iroyin re yii bere lati ori eyi ti o kundun julo titi de ori eyi ti o kii sabaa lo.
10. Ni iwoye tire, ki ni ipese ilera awon alaboyun je? .....

11. Ewo ninu awon wonyii ni won n pese nibi itoju ilera alaboyun ti o maa n lo?

<b>Nomba</b>	<b>Ipese Ilera</b>	<b>Bee ni</b>	<b>Bee ko</b>
I	Ipese/ Itoju ilera saaju liloyun		
Ii	Ipese/ Itoju ilera saaju ibimo/ojo ikunle		
Iii	Ipese/ Itoju ilera ni akoko ibimo/ojo ikunle		
Iv	Ipese/ Itoju ilera leyin ibimo/ojo ikunle		
V	Awon osise to dangajia		
Vi	Ipese oogun		
Vii	Imototo ati itura		
Viii	Mimu igbebi/ibimo rorun		
Ix	Didaabo-bo yala iya omo tabi ikoko lowo ewu to le waye lojo ikunle		
X	Ifetosomobibi		
Xi	Ajesara		

12. Pese alaye lori awon omo re gege bi o se bi won lera si.

<b>Nomba</b>	<b>Ako /Abo</b>	<b>Iye odun re ni ojo ibi re to gbeyin</b>
I		
Ii		
Iii		
Iv		
V		

**(ii) ISESI/ISEWAHU AWON OBINRIN NINU IPESE ILERA ALABOYUN**

13. Bawo lo ti maa n jeun si ni akoko ti o ba wa ninu oyun?

- (i) Ounje eekan lojumo (ii) Ounje eemeji lojumo (iii) Ounje eemeta ojumo (iv) Imiran (So fun wa) .....

14. Nje o maa n gbaawe ni ibamu pelu ilana esin re ni akoko ti o ba wa ninu oyun?

- (i) Bee ni (ii) Bee ko

15. Bi o ba je 'Bee ni', se o maa n gba imoran/itoni lori ilera re ki o to gba iru aawe bee? (i) Nigba gbogbo (ii) Eekookan (iii) Kii waye/sele

16. Ni akoko ti o loyun, nje o lo se itoju ara re ni ibudo eto ilera?  
 (i) Bee ni (ii) Bee ko
17. Ibi itoju ilera ti o lo (ANC).....
18. Bi o ba wa ninu oyun, akoko won i o maa n ri onisegun?  
 (i) Saaju osu keta (ii) Laarin osu keta si ikefa (iii) Osu kefa si ikesan-an (iv)  
 Leyin osu kesan-an (v) Ko waye
19. Igba meloo lo lo fun ayewo ni ibudo eto ilera aye ode oni nigba ti o wa ninu oyun?  
 (i) Ko si (ii) Eekan (iii) Eemeji (iv) Eemeta (v) Eemerin tabi ju bee lo (vi) N ko  
 le ranti mo (vi) Imiran (So fun wa) .....
20. Akoko wo ni ayewo re akoko ninu oyun maa n waye?  
 (i) Osu kin-in-ni si ikerin (ii) Osu karun-un (iii) Osu kefa (iv) Osu Keje (iv) Osu  
 kan si ojo Ikunle (v) Nigba ti wahala ba wa (vi) Imiran (So fun wa) .....
21. So awon idi ti o fi n lo fun itoju ni akoko iloyun. ....  
 .....  
 .....
22. Ni akoko iloyun, nibo ni o ti n se awon nnkan wonyii, o kere tan eekan?

Nomba	Ipese Ilera	Bee ni	Bee ko
I	Wiwon gbigbewon iya omo		
Ii	Titetisile lati gbo bi omo se n mi ninu oyun		
Iii	Ayewo ifunpa		
Iv	Ayewo eje ati ito		
V	Gbigba abere ajesara fun eran ipa		
Vi	Sise ayewo lori won aisan ajemabo		
Vii	Sise ayewo ailejeto		
Viii	Gbigba oogun adena iba		
Ix	Gbigba oogun ( onikoro)		
X	Sise ayewo arun eedi		
Xi	Gbigbamoran lori awon ami asaaju ewu to le suyo		
Xi	Imoran lori mimurasile de ojo ikunle		
Xii	Imiran (So fun wa)		

23. Nibo lo bimo si gbeyin? (i) Ile iwosan/Ibudo eto ilera (ii) Ibugbe (iii) Yara igbebi inu ijo (iv) Odo awon alagbo omo (v) Odo akosemose eto ilera

24. Ona igbabimo re : (i) were (ii) Pelu iranlowo lojo ikunle (iii) ise abe

25. Nje o maa n gba itoju leyin ibimo? (i) Bee ni (i) Bee ko

26. Akoko ti o maa n lo fun ayewo leyin ibimo.

Nomba	Akoko ayewo leyin ibimo	Fi ami si eyi ti o jemo o
I	Ose kan	
Ii	Ojo meedogun	
Iii	Ose marun-un si mefa	
Iv	Bi isoro kan ba yoju	
V	Imiran (So fun wa)	

27. Nje o n lo okankan ninu awon liana ifetosomobibi?

(i) Bee ni (ii) Bee ko

28. Bi o ba je 'Bee ni', so iru liana ifetosomobibi ti o lo

.....  
 .....  
 .....

29. Ara ta ni ifetosomobibi naa wa? (i) Tokotaya (ii) Oko/Aya (iii)Imiran (So fun wa)

30. Bawo ni ilana ifetosomobibi ti o lo se sise si? (i) Sise dada (ii) Sise (iii) Ko sise to (iv) Ko sise rara

31. Nje ifetosomoibi naa mu ipalara dani? (i) Bee ni (ii) Bee ko

Bi o ba je 'Bee ni', so ipalara naa. ....

.....  
 .....

**(iii) SISE/PIPESE ILERA AWON ALABOYUN**

32. Awon ona itoju alaboyun wo lo mo?

<b>Nomba</b>	<b>Ipese/Ona Itoju Alaboyun</b>	<b>Bee ni</b>	<b>Bee ko</b>
I	Ajesara/Sise afikun okun		
Ii	Sisinmi ati imototo		
Iii	Ilera ati eto jije ounje asaraloore		
Iv	Gbigba ajesara eran ipa (Tetanoosi)		
V	Ifetosomobibi		
Vi	Fifun omo loyan ati jija omo lenu omu		
Vii	Imiran (So fun wa)		

**IPIN C: WIWALAAROWOTO ATI SISAYEWO NINU ISAMULO ILERA ALABOYUN**

33. Awon ohun amayederun to jemo ilera alaboyun wo lo wa ni arowoto re?

<b>Nomba</b>	<b>Amayederun (Ajemo ilera alaboyun)</b>	<b>Bee ni</b>	<b>Bee ko</b>
I	Ile ekose isegun		
Ii	Ile iwosan gbogbo gboo		
Iii	Ibudo itoju-ara-eni (ile kekere)		
Iv	Ile itoju alaboyun		
V	Ago iwosan aladani		
Vi	Alagbo omo		
Vii	Oogun ibile		
Viii	Ile igbebi ninu ijo		
Ix	Imiran (So fun wa)		

34. Bawo ni ibugbe se jina si ile itoju ilera alaboyun to sun mo o ju?

(i) Sun mo pekipeki (ii) Ni itosi (iii) Jina (iv) Jina rere

35. Bi a ba foju bu u, bawo ni ibudo itoju ilera alaboyun ti o wa ni itosi re ti se sun mo ibugbe re to? (i) Din ni ibuso kan (ii) ibuso kan si meji (iii) ibuso meta si merin (iv) ibuso merin si marun-un (v) O ju marun-un lo

36. Bi iseju meloo ni o le lo lati de ibudo ilera alaboyun ti o fe? (i) O din ni iseju mewaa (ii) Iseju mewaa si ogun (iii) Ogun iseju si ogoji (iv) Aadota iseju si wakati kan (v) O ju wakati kan lo
37. Nje o ro pe bi ibudo itoju alaboyun ti se jina si o nii se pelu bi o ti n se amulo re? (i) Bee ni (ii) Bee ko
38. Awon ipa wo ni jijina ti ile re jina tabi sisunmo ti ile re sun mo ibudo ilera alaboyun n ko njnu bi o ti n se amulo re? .....
39. Ona wo lo maa n gba lati de ibe? (i) Ririn (ii) Keke (iii) Alupupu/Okada (iv) Keke elese meta (v) Kabukabu (vi) Oko ayokele (vii) Oko Akero
40. Nje enikenin ninu ile re ni ..... (i) keke (ii) alupupu (iii) oko akero (iv) oko akero (v) oko ayokele (vi) oko akero (v) imiran (so fun wa)
41. Bi a ba se odiwon bi o ti se n lo si ibudo ilera ni agbegbe re, bawo lo se ri? (i) o ga daadaa (ii) O ga (iii) iwontunwonsi (iv)ko gbe peeli (v) Ko gbe peeli rara

**IPIN D: YIYAN LAAYO ORISII ONA ITOJU ILERA ALABOYUN**

42. Se afihan iyanlaayo re ninu amulo awon orisii ona itoju ilera alaboyun yii:

Nomba	Yiyanlaayo ninu isamulo	Gbogbo iga	Eekookan	Nigba miiran	Ko waye
I	Oogun atijo				
Ii	Oogun ibile (Tewetegbo)				
Iii	Adura nile ijosi				
Iv	Awon alagbo omo				
V	Oogun aye ojoun ati oogun ibile				
V	Adura ati oogun ibile				

43. Ki ni idi re ti o fi yan lilo won laayo? (i) Bi arun se le si (ii) Bi ile itoju alaboyun ti sun mo tosi to ati bi o ti se rorun lati debe (iii) Imiran (So fun wa). .....

44. Nje iyanlaayo re yii n se anfaani fun o?(i) Bee ni (ii) Bee ko
45. Bi o ba je ‘Bee ni’, bawo ni ona itoju ilera alaboyun ti o yan ti se sise fun o to?  
(i) Sise daadaa (ii) Sise (iii) Ko sise (iv) Ko sise rara
46. Ta ni o ni ase gan-an lori lilo fun itoju ilera oyun re?  
(i) Oko/Eni keji (ii) Obinrin (iii) Awon ebi (iv) Ore tabi aladuugbo (v) Imiran (So fun wa) .....
47. Nje esin re faaye gba lilo orisii oogun miiran yato si ti aye ode oni?  
(i)Bee ni (ii) Bee ko
48. Bi o ba je ‘Bee ni’, kin i awon idi re?  
(i) Sisise oogun (ii) eroja oogun bee (iii) Kikuna Oogun atijo (iv) Didinwo ati siseera iru oogun bee
49. Bi o ba je ‘Bee ko’, kin i awon idi ti o ni  
(i) Aditu ni (ii) Won kii so akoko ti sisise re maa n pari (iii) Kos i odiwon fun lilo re (iv) Kii se iwosan pipe fun arun (vi) O ni oorun to buru jai
50. Nje o maa n samulo ilana ilera aye ode oni ni adugbo re? (i) Bee ni (ii) Bee ko
51. Bi o ba je ‘Bee ni’ ki ni odiwon bi o ti se n lo o?  
(i) O ga gan-an (ii) O ga (iii) Iwontunwonsi (iv) Ko ga (v) Ko gbe peeli rara
52. Ki ni iwoye re lori ipese ilera aye ode oni?  
(i) Ose anfaani (ii) Ifisofo ni (iii) N ko ri wi si i
53. Nje iwo ri eto itoju ilera ni ilana aye ode oni gege bi koseemani?  
(i) Bee ni (Bee ko)
54. Nje o ti je anfaani nipa sise amulo awon ipese itoju ilera ti o jemo aye ode oni ni agbegbe re? (i) Bee ni (ii) Bee ko
55. Awon orisii idiwo ninu sise amulo ipese itoju ilare alaboyun

<b>Nomba</b>	<b>Awon idiwo</b>	<b>Bee ni</b>	<b>Bee ko</b>
I	O ko mo ibi ti o ye ki lo		
Ii	Gbigba aaye lati lo		
Iii	Isoro ede		
Iv	Wiwon gogo		
V	Aini imo lori awon orisii ipese ilera to wa		



Vi	Aisi awon eroja tabi irin-ise		
Vii	Isesi tabi iwa awon olupese ilera		
Viii	Isoro atide ibi ipese ilera		
Ix	Bi won ti se aato ilera alaboyun ni akoko		
X	Asa tabi esin		
Xi	Aisi ifidaniolu ilera eni		
Xii	Iha ti oko ko si fifaramo ipese irufe ilera yii		
Xiii	Awon isoro kan to ti waye nipa re ri		
Xiv	Iri ti o ti ni saaju ri nipa ipese ilera naa		
Xv	Bi ibudo ipese ilera se jina si		
Xvi	Wahala a-n-woko		
Xvii	Gbigbani lakooko		
Xviii	Aife-maa-lo		
Xix	Lilero pe o le ma si obinrin ti yoo pese/se ise ilera		
Xx	Gbigba itoju ilera ko se Pataki		
Xxi	Igbagbo/Esin mi ko faaye gba a		
Xxii	Imiran (So fun wa)		

## **APPENDIX V**

### **IN-DEPTH INTERVIEW GUIDE (For Women Ages 15-49)**

#### **Introduction**

Good day Sir/Ma. My name is Lasisi Chidinma Joy. I am currently behaviouing a Ph.D research on Health care Facility Utilisation and Maternal Health-seeking Behaviour in Ibarapa Region. I will be grateful if you could participate by granting me audience. Information you supplied would be use for academic purpose and will be treated with utmost confidentiality.

- What is your experience at unorthodox hospital?
- What is the attitude of maternal health care providers?
- What are the problems faced accessing maternal health centres?
- What is your educational qualification?
- Where did you give birth and have you ever made use of traditional birth attendant?
- Where did you get information/knowledge on maternal health care services?
- What ethnic tribe are you and your husband from?
- What religion are you and your husband practicing?
- What is your occupation and your husband's?
- Do you perform religious activites like fasting and other activites when you are pregnant?
- Do you use family planning measures, share your view on it and any negative effects of it?
- Why did you not consult orthodox hospitals and has there being any complications in the unorthodox hospital attended?
- What are the means of transporting pregnant women and side effects of such means?

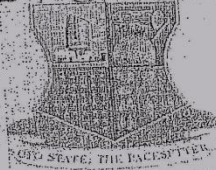
## **APPENDIX VI:**

### **KEY INFORMANT INTERVIEW GUIDE (For Medical Practitioners)**

- What are the types of services rendered in these traditional maternal health care centres?
- What are the services rendered in your orthodox hospitals and the level of equipment available (both public and private hospitals were asked)?
- In what state are the facilities of your orthodox hospitals and how much is paid to receive maternal health care services?
- What are the means of transporting pregnant women and side effects of such means?
- How many Doctors are available in orthodox hospitals and their duties?
- What are the infrastructural problems faced by the communities (relating to maternal health services)?
- What are the level of accessibility to maternal health care services?
- What is the distance of maternal health services from the women seeking such and the effects on them?
- What are the problems faced accessing maternal health centres?
- What are the cost of maternal health care services and preference in the utilisation of maternal health centres?
- How many Doctors and Nurses are available to meet the need of maternal health care seeking women?
- What is the attitude of maternal health care providers?
- Preference of health care workers (male or female attendant) and reasons?
- The cost of giving birth at maternal health care clinics and the environment?

**APPENDIX VII**  
**ETHICAL APPROVAL**

APPENDIX VII  
ETHICAL APPROVAL



**MINISTRY OF HEALTH**  
DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION  
PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No. ....

All communications should be addressed to  
the Honorable Commissioner quoting

Our Ref. No. AD 13/ 479/ 107  
2014

November,

The Principal Investigator,  
Department of Geography,  
Faculty of Social Sciences,  
University of Ibadan,  
Ibadan.

**Attention: Lasisi Chidinma**

Ethical Approval for the Implementation of your Research Proposal in Oyo State  
This acknowledges the receipt of the corrected version of your Research  
Proposal titled: "Spatial Variations in Facility Utilization and Maternal Health  
Seeking Behavior in Ibarapa Region of Oyo State."

2. The committee has noted your compliance with all the ethical concerns  
raised in the initial review of the proposal. In the light of this, I am pleased to  
convey to you the approval of committee for the implementation of the Research  
Proposal in Oyo State, Nigeria.

3. Please note that the committee will monitor closely and follow up the  
implementation of the research study. However, the Ministry of Health would  
like to have a copy of the results and conclusions of the findings as this will help  
in policy making in the health sector.

4. All the best.



Sola Akande (PhD)  
Director, Planning, Research & Statistics  
Secretary, Oyo State, Research Ethical Review Committee