

# Factors Associated with Maternal Regular Attendance and Default at Antenatal Clinic in Ile-Ife, Osun State

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#### Abstract

Background: Every year, more than 200 million women become pregnant. Pregnancy is a normal physiological process and most pregnancies end with the birth of a live baby. Pregnancy is not a disease and pregnancy-related mortality and morbidity are preventable with attainable simple and cost-effective interventions. However, all pregnancies involve some risk to the mother or infant and it is important to prevent, detect, and manage complications early before they become life-threatening emergencies and that is what Antenatal care offers. Antenatal care is considered the foundation for the normal development, adequate growth, and good health of the mother and fetus. Antenatal care is the care given to a woman during pregnancy. It is a systematic plan of preventive and therapeutic care implemented through a schedule of visits between clients and members of the health care team to enable the client (pregnant woman), the fetus and family go through the intrapartum period maximally using all resources to get the best possible outcome of pregnancy. Therefore, Antenatal care is widely used for the prevention, early diagnosis, and treatment of general medical and pregnancy-related complications.

Purpose: The purpose of the study was to assess the factors associated with attendance and default/non-attendance at Antenatal clinic by pregnant women in Ile-Ife.

Methodology: A descriptive research design was employed. Purposive random sampling was used to select 80 pregnant women attending the Health facilities selected for the study. A 29-item questionnaire was used to elicit information from the women. Data collected was analyzed using descriptive statistics such as frequency table and percentage.

Results: Findings revealed that all the 80 (100%) respondents had heard about Antenatal care. 33 (41.3%) were defaulters and 47 (58.7%) attended their clinic regularly and up to date. Factors associated with non-attendance were lack of finance/money (21.2%), occupation/busy work schedule (30.3%), the absence of illness/healthy status (27.3%), and distance (21.2%). The main factor associated with regular attendance of antenatal clinic was good knowledge of the benefit of antenatal care. The recommendation given was that defaulters should be followed up and visited at their respective homes and education on the importance of regular attendance at ANC stressed to them.

Discussion: The findings of this study highlighted the factors associated with regular maternal attendance and default at Antenatal clinic by pregnant women. All the respondents had heard about Antenatal care and were aware of it. About 79% of the respondents got information about antenatal care from neighbours, friends, and relatives who had attended antenatal clinic before. Only 21% of the respondents heard through a nurse. This implies that nurses, midwives, and the health team members need to put up strategies that will assist in reaching a large proportion of pregnant women. From the study, 41.3% of the respondents were defaulters. Some of them default because of their occupation. Those that are traders travel to buy goods or go to the market to sell when the clinic days fall on major market days. Those that are government workers default when they are not granted permission in the workplace. The farmers among them go to farm at times to get farm products for the family. Some default because of lack of money for transportation, the lack of money to buy needed materials and items/pay for services at the clinic. Some said there was no need to attend Antenatal clinic as far as they are healthy. It was also discovered that majority of those who attend ANC regularly were Primigravidae while the multigravidae and grand multigravidae

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were the major defaulters. The multigravidae and grand multigravidae based their reason on the fact that they have attended ANC during previous pregnancies and are healthy.

**Keywords:** Factors, Maternal, Regular attendance, Default, Ante Natal Clinic, Ante Natal Care.

#### Introduction

Every year, more than 200 million women become pregnant. Pregnancy is a normal physiological process and most pregnancies end with the birth of a live baby. Pregnancy is not a disease and pregnancy-related mortality and morbidity are preventable and attainable with simple and cost-effective interventions. Most pregnancy-related complications could be effectively prevented or managed without recourse to sophisticated and expensive technologies and drugs (Adamu, 2011). However, all pregnancies involve some risk to the mother or infant and it is important to prevent, detect, and manage complications early before they become life threatening emergencies. For some, childbirth is not the joyous event it should be but a time of pain, suffering, and even death. Many of the annual totals of 500,000 maternal deaths estimated by World Health Organization (WHO) are from problems associated with pregnancy and delivery and many of the survivors suffer long term or lifelong ill health and disabilities. Because of these difficulties associated with human birth, women often need care in order that they can be helped to bear healthy children and to do so with as little detriment as possible to their own health and the baby and this is through the antenatal care (Stevens-Simon, Beach & McGregor, 2002).

Antenatal care (ANC) is considered the foundation for the normal development, adequate growth, and good health of the mother and fetus. Antenatal care is the care given to a woman during pregnancy. It is a systematic plan of preventive and therapeutic care implemented through a schedule of visits between clients and members of the health care team to enable the client (pregnant woman), the fetus and the family go through the intra-partum period maximally using all resources to get the best possible outcome of pregnancy. Antenatal care therefore, is one of the key strategies for reducing maternal and neonatal morbidity and mortality directly through detection and treatment of pregnancy-related illness, or indirectly through detection of women at risk of complications of delivery and ensuring that they deliver in a suitably equipped facility (Anh, Trinh & Tuyet, 2002). A number of studies have demonstrated the association between antenatal care attendance and reduction of premature birth, low birth weight, congenital malformations, congenital infections, neonatal tetanus, preeclampsia, and anaemia (Orvos et al, 2002). The importance of antenatal care is embedded in four main elements, which are assessment of the risk of pregnancy, education, preventive measures, and monitoring of pregnancy. Deriving maximum benefit from the current pattern of antenatal care is dependent on the regular attendance on clinic days. The utilization of ANC has been shown to predict several birth outcomes and a number of postpartum practices (Barnhart, Casanova, Sammel, Timbers, Chung & Kulp, 2008). The new World Health Organization (WHO) ANC model states that every pregnant woman is at risk of complications and recommends early ANC visit. Low ANC coverage, few visits, and late attendance at the antenatal clinic are common problems throughout sub-Saharan Africa posing difficulty in accomplishing the WHO recommended ANC schedule (Delva, Yard, Luchters, Chersich, Muigai, Ovier et al. 2010). According to the Ethiopian Demographic and Health Survey (EDHS) 2011 report, only 11.2% of mothers made their first ANC visit within the first four months of gestation (CSA, ICF International, 2010). A study in Addis Ababa showed that even though 40% of mothers booked in the first trimester, the timing ranges from the first to the ninth month of gestation (Tariku, Melkamu & Zewuditu, 2010). Reports from 2008 Nigerian National Survey revealed that only 58% of women aged 15-41 received antenatal care from a skilled provider (doctor, nurse/midwife) during their last pregnancy. Thirty percent of women received ANC services from a Nurse or midwife, while 23 percent received ANC services from a doctor. Three percent of women received ANC services from traditional birth attendants (TBA) and 39% did not receive ANC services at all (NPC, 2008).

Pregnant women who default from regular clinic attendance are thus deprived of enjoying the maximum benefit that regular antenatal care attendance are expected to give. This study is thus directed at investigating the factors that are associated with regular clinic attendance and default by pregnant women in Ile-Ife.

## **Statement of problem**

Despite all efforts to improve maternal and child health indices and attain the millennium development goals (MDGs) 4 and 5, utilization of ANC services is still low in some parts of the country. Low utilization of maternal and child health services is a big problem in the developing countries. The high level of maternal mortality in developing countries has been attributed partly to the non-availability of services and poor utilization of services when they are available.

Pregnancy is a crucial time to promote healthy behaviours and parenting skills. Good ANC links the woman and her family with the formal health system, increases the chance of using a skilled attendant at birth, and contributes to good health through the life cycle. Inadequate care during this time breaks a critical link in the continuum of care, and affects both women and babies. It has been estimated that 25 percent of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in the area. Between a third and a half of maternal deaths are due to causes such as hypertension (pre-eclampsia and eclampsia) and antepartum haemorrhage, which are directly related to inadequate care during pregnancy [WHO, 2012].

ANC indirectly saves the lives of mothers and babies by promoting and establishing good health before childbirth and the early postnatal period. ANC often presents the first contact opportunity for a woman to connect with health services, thus offering an entry point for integrated care, promoting healthy home practices, influencing care-seeking behaviours, and linking women with pregnancy complications to a referral system.

The present pattern of ante natal care in which a pregnant woman books and is routinely screened and monitored from conception to the time of delivery has been in existence since the inception of the National Health Service in 1948. There is no doubt that this method of service provision has done a great deal of good, but it is disappointingly true that it has not maximally had the beneficial effect on the maternal and fetal mortality rates of the country as expected. It is known that some pregnant women do not attend antenatal clinic at all for care. Some start attending at first and default after along the way while others only appear towards the time of delivery. Many are questioning the benefits of routine attendance at the antenatal clinic. From observation, the numbers of pregnant women who attend antenatal clinic right from inception to the time of delivery are few compared to those who do not attend at all and those who default.

This study therefore endeavoured to answer the following questions.

- 1. What are the factors associated with regular attendance at the antenatal clinic by some pregnant women?
- 2. What are the factors associated with the default/non attendance at antenatal clinic by pregnant women?

## **Objectives of the study**

- 1. To identify the factors associated with the regular attendance at antenatal clinic by pregnant women in Ile-Ife.
- 2. To identify the factors associated with the default/non-attendance at antenatal clinic by pregnant women in Ile-Ife.

## Significance of the study

Antenatal care is part of maternal care which has its objective as the complete supervision of the pregnant woman in order to preserve the happiness, health, and life of the mother and child. This care starts from the time of conception to the time of delivery. During this period,

difficulties and complications that can be detrimental to the mother and child can be determined, detected, prevented, or managed before delivery. Since individuals react differently to pregnancy, this care is of the utmost importance in detecting these reactions. This study therefore will help find out the factors that are associated with the regular attendance and default/non attendance at antenatal clinic. The study will assist nurses, midwives, government, and various stakeholders to plan and put up strategies that will help prevent/reduce default/non attendance at the antenatal clinic. The study is of utmost importance as mitigating the factors associated with default/non-attendance will reduce maternal and child mortality.

## Literature review

Maternal and neonatal morbidity and mortality have continued to be a major problem in developing countries despite efforts to reverse the trend. Globally, more than 500,000 mothers die each year from pregnancy related conditions, and neonatal mortality accounts for almost 40% of the estimated 9.7 million children under-five deaths (UNICEF, 2009). All these can be prevented by antenatal care. Antenatal care is the care given to a pregnant woman from conception to delivery. It involves constant and complete supervision of the pregnant woman. Maximum benefit from antenatal care is dependent on the regular attendance on clinic days. However, only 19% of women attend antenatal care by their fourth month of pregnancy, as recommended by World Health Organization (ZDHS, 2007). Many neonatal deaths are a direct consequence of poorly managed pregnancies and deliveries. For half a million of women each year, the complications of pregnancy are fatal. The causes of these deaths are essentially the same around the world. It is estimated that 127,000 women (25%) die due to haemorrhage, 76,000 (15%) due to sepsis, 65,000 (12%) due to hypertensive disorders of pregnancy, 38,000 (18%) due to obstructed labour, and almost 70,000 (13%) due to abortion. Around 20% of women die as a result of a disease which is aggravated by pregnancy, such as malaria, iron deficiency anaemia, hepatitis, tuberculosis, or heart disease complications and they nonetheless suffer acute or chronic ill-health and debilitating conditions such as reproductive tract infections.

Pregnancy related deaths and disabilities result not only in human suffering but also in losses to social and economic developments. The women who die are in the prime of life, and responsible for the health and well being of their families. They generate income, grow and prepare food, educate the young, care for the children, the elderly and sick. Their deaths represent a drain on all development efforts.

## Concept of antenatal care

Antenatal care (ANC) is the care a pregnant woman receives during her pregnancy through a series of consultations with trained health care workers such as midwives, nurses, and sometimes a doctor who specializes in pregnancy and birth.

An analytical review of the recent World Health Statistics showed that ANC coverage, between 2006 and 2013, was indirectly correlated with maternal mortality ratio (MMR) worldwide. This indicates that countries with low ANC coverage are the countries with very high MMR. For instance, ANC coverage in United Arab Emirates was 100% with MMR of 8 per 100,000 and Ukraine had 99% ANC coverage and MMR of 23. By comparison, in sub-Saharan Africa, Ghana had ANC coverage of 96% and MMR of 380/100000, Chad had 43% ANC coverage and a MMR of 980/100,000, and Nigeria had ANC coverage of 61% and MMR of over 560. Nigeria's MMR is clearly above the African and global average of 500 and 210 respectively [Doctor, Bairagi, Findley, 2011]. The poor maternal health outcome in Nigeria could be a result of poor ANC utilization, [Ajayi, Osakinle, 2013] although ANC coverage may not provide information on the quality of care provided.

## Importance/Benefits of ante natal care

The importance of ANC services in the outcomes for pregnant women has been well documented [Osungbade, Oginni, Olumide, 2008]. ANC enhances early identification and management of conditions that could be threatening to the mother and her unborn child. ANC by trained skilled providers screen for infections, treats malaria, reduces the incidence of perinatal illness and death, provides birth preparedness, identifies signs of danger in pregnancy and plans to handle possible delivery complications through timely treatment and referrals [Lincetto, Mothebesoane-anoh, Gomez, Munjanja, 2010]. It also reduces medical problems in pregnancy such as anaemia, hypertension, ectopic pregnancy, obstructed labour, eclampsia, excessive bleeding and premature labour and delivery [Asmaw, Alemu, Alemu, Unakal, 2013]. In particular, a clinical audit of antenatal services in Nigeria found better maternal outcomes among women who had completed ANC than those who had not though it may not directly reduce the risk of death.

Two nationally representative surveys were conducted recently in Nigeria: Nigeria Demographic and Health Survey (NDHS) in 2013 and National AIDS and Reproductive household survey (NARHS) in 2012. The two surveys showed that the proportion of pregnant women who had not attended any ANC services in Nigeria was 33.9% and 34.9% respectively. According to the 2013 NDHS, only 60.9% among women of child bearing age (15–49 years) who had a live birth in the five years preceding the survey received ANC from a trained skilled ANC provider (i.e., a doctor, nurse or midwife, or auxiliary nurse or midwife). Only half (51.0%) reported making four or more ANC visits during the pregnancy. About one third (36%) of births were delivered in a health facility while 38% of all deliveries within the five years were assisted by a skilled birth assistant (SBA). The attendance of ANC and delivery in a facility by a trained birth assistant are far lower than most other Africa countries. In sub-Saharan Africa, overall 75% had at least one ANC attendance, 48% had 4 or more ANC visits and 48% of deliveries were supported by skilled birth attendants [Gupta, Engelman, Levy, Luchsinger, Merrick, James, 2014].

In comparison with ANC coverage in Nigeria, a neighboring developing country, Mali, had 57% of pregnant women having at least one prenatal contact with a skilled ANC provider within five years preceding the DHS in 2001. In another developing country, Indonesia, about 95% of pregnant women attended at least one ANC visit and 66% of women had four ANC visits within five years before the 2007 DHS. This implies that Nigeria has not attained maternal health care success achieved over a decade ago in Mali and over 5 years ago in Indonesia. The questions are why are pregnant women not attending ANC in Nigeria? What are the limiting factors? What are the barriers?

Studies have documented the socio-demographic and other factors affecting ANC use. Inability to pay for ANC services or prescribed treatment was identified as an important barrier to utilization of ANC [Onuzulike, 2009], a finding supported by other studies [Arthur, 2012]. In situations where ANC uptake requires travel and long waiting hours, pregnant women and their families experience huge opportunity costs, such as the loss of income in order to attend services [Onuzulike, 2009]. Long distances to health facilities as well as insufficient number of ANC providers at various ANC clinics negatively affect ANC utilization. Several studies have identified rural—urban differentials in use of ANC in Nigeria and elsewhere. The higher ANC coverage in urban areas than in rural areas worldwide has been ascribed to inequities in the number of accessible health facilities. In Nigeria, urban bias in public health expenditure, inadequate financing coupled with difficulties in attracting health workers to and retaining them in rural areas have limited government's ability to create an accessible community-based health care system which could reduce inequities in rural—urban health facilities. This scenario also occurs in other developing countries.

Antenatal care has been shown to improve certain outcomes of pregnancy complications such as eclampsia, anemia and syphilis through early detection, management and timely referral of high risk pregnancies, though such care has not been shown to reduce the rates of

maternal mortality. To fully benefit from the above actions and to improve on maternal and neonate outcome, it is advised that women begin attending ANC early in pregnancy.

WHO recommends that ANC should be started in the first trimester of pregnancy or early in the second trimester. If the pregnant woman has no serious health problem and does not need special attention, only four ANC visits suffice a decrease from 12 ANC visits, as had been previously recommended, as it is less costly and does not result to an increase in adverse maternal nor perinatal events [Carroli, Villar, Piaggio, 2001].

The recommendations by the Ministry of Health are that in a normal pregnancy, four visits suffice but on women with problems, extra visits are welcome. The four visits are 1st by 16 weeks, 2nd at 24-48weeks, 3rd at 32 weeks and 4th at 36 weeks; this is referred to as Focused antenatal care.

It is evident that timely antenatal care is an opportunity to prevent the direct causes of maternal mortality and reduction of fetal and neonatal deaths related to obstetric complications. Essex and Everett 1977 cited by McDonagh, 1996 stated that 81% of risk factors in pregnancy can be identified in the antenatal period. Coria-Soto et al, 1996, found that inadequate number of ANC visits was associated with 73% risk of having intra uterine growth retardation.

It has been argued that some of the poor pregnancy outcomes and complications of highrisk women are as a result of lack of antenatal care. [Carroli, Villar, Piaggio, 2001]. Llewellyn-Jones, 1974 asserts that lack of antenatal care, rather than biological inefficiency may be responsible for complications such as pre-eclampsia, anemia and low birth weight among teenage and unmarried mothers. However, there is no doubt that pregnancies of very young or older mothers have increased risks for both the mother and the baby.

A range of factors have been attributed to the low utilization of ANC services. They range from socio-economic, cultural, demographic, service availability and accessibility characteristics. In another study of the determinants of maternal health care in India, the important role played by socio-economic factors on the use of maternal health services was confirmed where higher maternal education, income and higher personal hygiene were observed to be associated with significantly higher probability of routine antenatal check-up. Demographic factors were also observed to play an important role as mothers aged below 18 years were less likely to have routine antenatal check-up.

Other factors that deter one from attending ANC are educational status of women, living in rural area, marital status, and being in poorest wealth index and obstetric factors such as parity, outcome of previous pregnancy and whether the pregnancy is planned or not, characteristics of the women and her family, characteristics of illness as well as characteristics of the health care system, including accessibility, acceptability, cost and quality of care provided.

The desirability of a pregnancy is an important determinant of the use of maternal health services. Pregnancies which are mistimed or not wanted are associated with irregular and late antenatal care visits than pregnancies which are conceived at the time that a woman wanted the pregnancy.

The Government of Kenya's March 2009 National Road Map for Accelerating the Attainment of the MDGs Related to Maternal and Newborn Health in Kenya and the Child Survival and Development Strategy 2008 identified several barriers to utilization of maternal services ranging from socio-cultural to demographic factors including: lack of recognition of danger signs in pregnancy; poor accessibility and low utilization of skilled attendance during pregnancy, child birth and postpartum period; limited access to essential and emergency obstetric care due to limited health provider competence and inadequate staffing, equipment and supplies; socio-cultural barriers leading to delays in seeking care; and limited national commitment of resources for maternal and newborn health [Health Policy Paper, 2012].

Skilled attendance at all births is considered to be the most critical intervention for ensuring safe motherhood; it hastens the timely delivery of emergency obstetric and newborn care when life-threatening complications arise. Skilled attendance denotes not only the presence of midwives and others with midwifery skills (MOWMS) but also the enabling environment they need in order to perform capably. It also implies access to a more comprehensive level of obstetric care in case of complications requiring surgery or blood transfusions [UNFPA, 2012].

Up to 15 per cent of all births are complicated by a potentially fatal condition. Many of these complications are unpredictable, almost all are treatable. Skilled attendants are trained to recognize problems early, when the situation can still be controlled, to intervene and manage the complication, or to stabilize the condition and refer the patient to a higher level of care, if needed. Skilled attendance is also vital in protecting the health of newborns: the majority of perinatal deaths occur during labour and delivery or within the first 48 hours after delivery. [Magidi, 2012].

Evidence from many countries, most notably China, Cuba, Egypt, Jordan, Malaysia, Sri Lanka, Thailand and Tunisia, indicate that skilled midwives functioning in or very close to the community can have a drastic impact on reduction of maternal and neonatal mortality. This is why the proportion of births attended by a skilled health provider is one of the indicators for measuring progress toward the fifth Millennium Development Goal.

In developing countries, the majority of births occur without the help of a skilled assistant at home or in other non-hospital settings [WHO, 2012]. In Kenya, 43% of deliveries occur in a health facility and 44% are assisted by a skilled attendant, this doesn't reflect the true picture of the whole country as Nyanza, western and coast province still have low figures of births attended to in hospital. Instead majority of births do occur at home under the care of traditional birth attendants.

Home deliveries in the absence of skilled professional attendants have been associated with adverse infant and maternal outcome. The place of delivery, if adequate facilities are provided effectively, has consistently been found to be associated with reduced maternal and neonatal mortality. An Effective delivery facility should meet the following conditions: first, delivery should be assisted by trained health workers who are able to identify the signs of complications and act appropriately when a problem occurs. Second, Referral facilities should be available to deal with obstetric emergencies once they have been identified, and on arrival at the referral facility patients should be observed promptly and appropriate decisions made to avoid further complications or even death, there needs to be a transport system to get women to the facility quickly in order for the service to be effective [Thaddeus's, Maine 1994].

Despite evidence showing that an effective delivery service leads to a reduction in maternal mortality we as a country haven't made strides towards achieving this goal. The above problem may be due to different reasons, including long distances or difficult access to a birth facility, costs of services and perceived lack of quality of care in a health facility [Hodgkin, 2012].

In developing countries, Traditional birth attendants (TBAs) continue to have a significant role in assisting in deliveries. In rural settings in Kenya, especially, Nyanza and western province there is a similar trend as shown from the KDHS, 2008 findings where 45% of women are delivered by TBAs as opposed to 25.8% who use skilled professionals. There hasn't been much change of the above trend in the last 5 years.

A vital contribution towards reducing maternal morbidity and mortality could be made if attendance at an antenatal clinic influenced women to select a trained birth attendant, thus the need for proper health education to women visiting ANC as almost 92% of pregnant women at least have one antenatal visits but only 25.8% are delivered by a skilled attendant [KDHS, 2008].

The importance/benefits of ante natal care are embedded in these Four (4) main elements.

i. Assessment of the risk of pregnancy – This begins with the first contact with the pregnant at the ante natal clinic. It takes the form of observation, physical examination and history taking. Personal data is collected to identify the client. Gynaecological and obstetric history is important for management of the client and also for anticipatory complications that can occur. A well taken history is the foundation stone of effective

ante natal care. Establishing and recording key facts regarding a woman's general health and obstetric past assist in the rapid identification of problems and provide criteria for appropriate decisions about care and services to be rendered (Myles, 1996). Women at risk of pregnancy that can result to complications include poor obstetric history, strikingly short stature, very young maternal age (15 years), nulliparity and grande multiparity, previous childlessness and malnutrition. Such women should be kept under review throughout pregnancy.

- ii. Education Ante natal care is an opportunity to promote dialogue with the client and nurture confidence as well as to reinforce maternal health messages on nutritional advice such as specific foods and taboos, rest, discomforts of pregnancy, personal hygiene, safer sex, family planning and child spacing. The clinic provides valuable opportunity for education on all these areas. She also learns the normal changes which occur during pregnancy and any deviation from this makes her to seek for help early.
- iii.Preventive measures "Prevention is better than cure" goes a saying. Pregnant women are susceptible to certain infections and diseases and preventive measures need to be taken to help the woman. These include active immunization of tetanus toxoid, which is highly effective against neonatal tetanus, routine provision of supplementary iron tablets and folic acid to reduce incidence of anaemia and chemoprophylaxis in the case of malaria. All these are done to improve the general health of the woman.
- iv. Monitoring Ideally, every pregnant woman should have a laboratory assessment and routine testing in every ante natal clinic attended so as to detect deviation from normal at an early stage before complications occur. Simple indications used include measurement of body weight, height, examination or testing of urine for sugar and protein, PCV and haemoglobin check, measurement of temperature and blood pressure and physical examination including specific obstetric observation (Myles, 1996).

From the above therefore, the aims of ante natal care is to prepare the woman for labour, lactation, and subsequent care of her child from the physical, psychological, social and educational point of view so as to ensure the delivery of a mature, live and healthy infant.

# Factors associated with attendance and default/non-attendance at ante natal clinic

Multiple barriers to participation and non attendance at antenatal clinic from related literatures include limited access health care due to economic constraints or lack of transportation, lack of knowledge with regards to risk factors and screening procedures. Cultural insensitivity wherein relevant socio-cultural factors or elements of diverse beliefs and practices are omitted from health programme operations, language barriers, socio-cultural values concerning health and sexuality as well as a lack of trust in health care were other factors (Olsen and Frank-Stromberg, 1993). Value-laden beliefs become obstacles when they predispose women to undermine health care services. Various studies have reported factors associated with non-attendance, default and late entry to ANC, which include place of residence, age, education, employment status, parity, economic status, travel time, and health insurance (Trinh & Rubin, 2006; Adekanle & Isawumi, 2008). Findings revealed that health practices, self care treatments such as herbal remedies are valued. They may prefer traditional practices with which they are familiar and which they feel were good enough for their parents and grandparents and so should be good enough for them. Ignorance is the most complex reason for not attending ante natal clinic. Some don't know the type of care they would receive. Some feel it is not necessary as long as they are healthy, bodily fit and not sick. Others feel there is nothing to gain in attending the clinic while others feel it is burdensome visiting the antenatal clinic at appointed dates. Shame on the part of an unmarried expectant mother may prevent her from booking in the clinic because she feels she will reveal her secret by doing so. On the other hand, an older married expectant mother who sees herself unexpectedly pregnant when her children are already grown up finds it uneasy to come to the antenatal clinic because of shame. Some others are too busy with their occupation, care of

their families or suffer subordination from the husband and family members. Fear of the unknown and tragic outcomes of hospital delivery makes some to avoid antenatal clinic. These reasons or factors to the defaulters or to those who did not book at the antenatal clinic may be reasonable and good, however, there is not just only one life at risk but two – the mother and expected child. So, the proportion of women who are obtaining the recommended minimum visits is too low (WHO, 2003). In addition, the first consultation is often made late in pregnancy, whereas maximum benefit requires early initiation of antenatal care.

On the other hand, those who book and attend ante natal clinic regularly are those who feel they will benefit from the ante natal clinic and receive the care that will keep them healthy and deliver safely or are surrounded by favourable conditions like support from husband and relatives, access to money and transportation, proximity to clinic and so on.

The challenge, which now confronts decision makers, health care planners and managers, and health care providers, is to ensure that every pregnant woman has access to high quality essential care. In order to ensure that as many pregnant women as possible have access to the essentials of care, a balance will have to be achieved between what is absolutely critical for all women and what would be ideal if circumstances permit. Important messages related to the health of women need to be conveyed to the community through a variety of media (radio, newspaper, television, plays) as well as through health care providers. It is crucial that consistent messages be conveyed to women, their families and the community through all channels. Financially handicapped ones can be helped to solve this problem through the medical social worker.

#### Factors that determine antenatal care service utilization

#### • Cultural influences

Cultural influences including local understandings of disease etiology and externally-focused loci of control play complex but important roles in understanding decision-making on location of delivery. Care-seeking may be delayed in situations where certain health problems are viewed as spiritual in nature rather than physical, such as eclamptic seizures. Despite the role of tradition in delivery practices, several respondents referred to home birth as "old time" and desired the modernity of facility-based delivery [Moyer, Adongo, Aborigo, Hodgson, Engmann, Devries, 2013].

#### • Medicalization of childbirth

Both women and men described the birthing process as a "normal" or "routine" event and believed that childbirth was a woman's "natural rite of passage" [Gebrehiwot, Goicolea, Edin, Sebastian, 2012]. Therefore, there was no rationale for delivering at a facility, and paying to do so was considered illogical and superfluous. Many women attempted home delivery first and considered facility birth only if complications arose.

When faced with the prospect of facility birth, some women feared undesirable birth practices, such as unfamiliar birthing positions. They preferred delivering at home with TBAs to retain control over their birth position. Medicalization of childbirth can leave women with the feeling that they are no longer active participants or decision-makers in the birthing process. Hospital providers were perceived as conducting unnecessary vaginal examinations, which women found uncomfortable and dehumanizing. Women viewed childbirth as an unpredictable event, which made creating a birth plan difficult. [Magoma, Requejo, Campbell, Cousens, Filippi, 2010]. This lack of planning in advance for childbirth, including decisions regarding delivery location, transportation, and availability of cash, prevent many women from accessing facility delivery. Many women felt more in control of maintaining their privacy when delivering at home. Privacy is greatly valued by parturient women, yet it may be difficult to achieve in a facility due to cultural insensitivity, or a lack of private labor wards. The lack of supportive attendance during facility-based delivery was a major concern. Women commonly referred to their families and TBAs as providing supportive care during home births. The "fear of cutting" (episiotomy or caesarean section) during delivery is an

important barrier to facility-based delivery. Since many women believe that "a woman is born to deliver vaginally," caesarean sections are seen as an unnatural intervention. Caesarean sections are also believed to be used indiscriminately without thorough consideration regarding individual cases. Similarly, women viewed episiotomy as an unnecessary intervention with complex social impacts.

## • Perception of antenatal care

Women may believe that attending ANC will diminish the likelihood of a complicated delivery, and use ANC in a preventive manner as a means to ensure a normal pregnancy and home-birth [Izugbara, Kabiru, Zulu, 2009]. This may explain why in some contexts ANC coverage is near universal while facility delivery rates remain low. In settings where ANC attendance was nearly universal, those few women who did not seek ANC felt uncomfortable seeking facility-based delivery due to their unfamiliarity with the health system and fear of mistreatment for not possessing an ANC attendance card. ANC providers may not be adequately advising women of the importance of facility-based delivery, due to a heavy workload and limited time to discuss complex issues with their patients. Some providers hesitate to encourage all women to deliver at a facility because of the scarcity of space or equipment.

#### • Previous birth experiences

Women determine their level of risk for complicated deliveries in part based on their prior delivery experiences and birth outcomes, which informs their future delivery location. A woman may be more likely to deliver at a facility during her first birth or if she had a previous obstetric complication. However, if a woman delivered her first child without complications, utilizing a facility for subsequent births is often viewed as unnecessary [Sorensen, Nielsen, Rasch, Elsass, 2011].

## • Influence of others on delivery location

A parturient woman may not be in control of the decision to seek facility-based delivery, instead relying on decisions made by elder women, husbands, other family members, and neighbors. While the influence of some actors may facilitate accessing skilled care, the involvement of too many actors often results in the delay or prevention of facility-based births [Seljeskog, Sundby, Chimango, 2006].

Elder women hold the greatest influence and decision-making power regarding delivery location across Asia and sub-Saharan Africa. Some women believed that they should choose the same delivery location as their mothers and grandmothers to maintain intergenerational continuity, and elder women may pressure younger women to deliver at home. Husbands play various roles in facilitating or preventing their wives from accessing facility-based deliveries, ranging from: (a) persuading their wives to visit a facility and mobilizing the necessary transportation and funds to (b) prohibiting a facility visit to (c) playing a more neutral role. Husbands do not always hold the final authority – the husband's decision-making power ranked below elder females across multiple contexts [Otis, Brett, 2008].

Families with social connections to skilled providers may be more accepting of the biomedical approach to maternity care and thus more willing to seek a facility-based delivery. More importantly, a relative or friend working at a nearby facility can often arrange quicker admission or quality treatment of a parturient woman.

Home births are logistically easier than facility births and meet women's desires to be surrounded by their belongings and the possibility of maintaining domestic responsibilities. Although women may receive support in their domestic responsibilities from their neighbours, co-wives, or husbands, women were concerned that domestic chores would be neglected if they attended a health facility for delivery

#### • Effect of policies

Access to facility deliveries is influenced at a community or national level, social welfare programs, population beyond the control of individual women. Several studies addressed the effects of government policies and programs on a woman's delivery location, including national health insurance schemes policies limiting the number of children allowed per couple, and national programs designed to increase facility-based deliveries [Wild, Barclay, Kelly, Martins, 2010].

#### • Resource availability and access

#### **Transportation**

Geographical distance and considerable travel times to health facilities are influential factors affecting women's delivery locations. In contrast to the perceived inaccessibility of facilities, the accessibility of traditional practitioners may validate a woman's decision to deliver at home. Likewise, limited availability of transportation options played a crucial role in whether or not a facility could be reached in a timely manner. In the absence of a reliable private car or ambulance, women used arduous modes of transportation including motorcycles or public transportation. In some areas, local public transportation was the only means available, but services were often intermittent in rural areas and the cost of transportation was prohibitively expensive. Travel at night or on weekends is especially difficult as there are fewer options and higher costs. Furthermore, health facilities may be closed or lack appropriate staffing to manage a delivery or complications at night. Lack of access to transportation, good roads, adequate funds, and communication systems also make organizing referrals for obstetric complications a time-consuming process [Afsana, 2004]

#### • Cost of childbirth

Direct costs associated with childbirth were prohibitively high for many women who viewed themselves as too poor to deliver in a facility. Low-resource households may have trouble acquiring funds to pay for facility-based care at the time-of-service, particularly those families who rely on seasonal labor. Collecting necessary funds were a difficult task as few moneylenders lent to the poor, and if they did, exorbitant interest rates could make the principle escalate rapidly. Family members were often sent around the community to collect money from their neighbor.

Women viewed costs outside of the direct cost for a delivery as "hidden" and said they were difficult to prepare for. Even in settings where direct delivery costs were subsidized, families were expected to pay for transportation to the facility, and other costs related to treatment at the facility [Otis, Brett, 2008].

## • Perceived quality of care from TBAs

Women emphasized the close bond they felt with TBAs, due to their status in the community and their trustworthiness. Some women believed that they received high quality care from TBAs and believed that TBAs played a supportive role. However, women who believed TBAs provided low-quality care and did not trust their ability to handle complications were more inclined to seek facility-based care, observing traditional practices did not preclude women from utilizing modern medical care. In medically pluralistic communities, many women moved freely between traditional and biomedical care models.

## • Perceived quality of care at facilities

Facilities are viewed as the safest and most respectable location for a delivery, and that facilities were able to ensure positive outcomes. Furthermore, the competence of formal health workers is respected and viewed as "well-trained, competent, and compassionate" "experts" who provided "effective management of emergencies"

However, women reporting negative interactions at facilities and lacking confidence in the health workers' abilities, who they considered undertrained, incompetent, and inexperienced,

were less inclined to desire facility deliveries. Some Women described providers as verbally and physically abusive, rude, bossy, disrespectful, insulting and easily angered, having poor attitudes, and lacking compassion. Physical abuse included slapping, hitting, or forcefully holding women down. Negative interactions with providers were exacerbated for women of low socioeconomic status [Pitchforth, Van Teijlingen, Graham, Dixon-Woods, Chowdhury, 2006].

Many Women experience neglect and long delays in receiving facility-based care. Health workers were slow to respond to patients' needs and women reported feeling alone during delivery as health workers had poor communication skills and did not provide updates on labor progression [Gao, Barclay, Kildea, Hao, Belton, 2010].

Inadequate facility infrastructure and staffing contributes to overall perception of low quality of care and there has been complains of overcrowded wards without dedicated labor and delivery areas. The lack of adequate staff also led to overburdened lower-level providers.

#### • Stigma

Women feared compulsory HIV-testing or HIV-testing without consent during facility-based delivery due to the fear of discrimination associated with a positive test. Some felt the only way to avoid HIV-testing was to deliver at home. The fear of unwanted HIV-status disclosure may prevent women from accessing facility delivery, as the lack of privacy in maternity wards impedes confidentiality. Lastly, many communities view pregnancy and childbirth as the outcome of a marital relationship, thereby potentially stigmatizing and disempowering unwed women seeking facility delivery. Delivering at home was a desirable choice for unwed women or adolescents to avoid embarrassment or discrimination at a facility, particularly because these women were often lacking emotional and financial support from their partner or parent.

Several years ago, Thaddeus and Maine presented a framework identifying three phases of delay to accessing quality obstetric care: (a) delays in seeking care; (b) delays in reaching care; and (c) delays in receiving care. Although the three-delay model is still valid, it may be too simplistic to explain why women still experience delays in accessing skilled delivery care. This review expands upon the three-delay model to illustrate how perceived quality of care by both traditional providers and facility-based providers influence the decision to seek care, as well as the impact of disrespect and abuse on delivery care-seeking behaviors. Public health programs to date have focused primarily on addressing resource availability and access issues to increase facility-based delivery rates. However, improving the quality of facility-based intrapartum care has the potential to further reduce the barriers to the utilization of facility-based delivery services.

## Methodology

**Design and Location of study:** Descriptive design was adopted for the study. The study was conducted at three health facilities located within Ile-Ife, Osun State, South West, Nigeria. The facilities are Obafemi Awolowo University Teaching Hospital, Eleyele Comprehensive Health centre and Enuwa Primary Health Care Centre. Ile-Ife town is a Yoruba speaking town located 80km East of Ibadan, 32km South of Ilesha, and 64km Northeast of Ondo town. There are many government workers as well as majority of the indigenes who engage in petty trading, farming, driving, etc. The health facilities selected for this study take care of the health needs of the citizens residing in Ile-Ife and its environs.

Sample size and Sampling procedure: Purposive sampling technique was used and all registered pregnant women at the ante natal clinics as at the time of the study constituted the sample for the study. 80 pregnant women within 18 years and above who attend antenatal clinic at the three centres used made up the sample of the study. The distribution according to the centres include 35 pregnant women at Obafemi Awolowo University Teaching Hospital, Ile-Ife, 25 pregnant women at Eleyele Comprehensive Health centre, and 20 at Enuwa Primary Health Care centre.

**Method of Data collection:** Questionnaire which doubled as an interview guide but translated to Yoruba for subjects who could not read in English was used to collect information from the participants. The questionnaire had 29-item which comprised of both closed-ended and open-ended questions. The exercise was conducted with their cooperation and all the questionnaires were retrieved by the researcher.

**Technique of Data analysis:** The data was analyzed using descriptive statistical tools like frequency table and percentages. Before this exercise, all data was edited, coded and fed into the computer. This was facilitated by the use of the Statistical Package for Social Sciences version 18.0.

**Ethical consideration:** The values, belief, privacy of the respondents were duly observed. Ethical clearance was sought from the research coordinator to the authority concerned at the catchment area. Participants were assured of anonymity and confidentiality throughout the study. The informed consent was sought from the study participants prior to their participation in the study.

## Analysis of data and interpretation

This chapter gives information on data generated. The data in summary tables using frequency counts and percentages is as presented.

**Table 1.** Showing the socio-demographic characteristics of the respondents (n=80)

Variables	No of	%
	respondents	
Age range (Years)		
15-19	7	8.7
20-24	24	30.0
25-29	13	16.3
30-34	17	21.2
35-39	10	12.5
40 & above	9	11.3
Total	80	100.0
<b>Educational status</b>		
No schooling	15	18.7
Primary	21	26.3
Secondary	28	35.0
Higher education	16	20.0
Total	80	100.0
Tribe		
Yoruba	50	62.5
Igbo	18	22.5
Hausa	9	11.3
Others	3	3.7
Total	80	100.0
Marital status		
Single	10	12.5
Married	70	87.5
Separated	0	0
Divorced	0	0
Total	80	100.0
Occupation		
Civil servant	30	37.50
Trading	35	43.75
Farming	15	18.75
Total	80	100.0

Religion		
Christian	57	71.3
Islam	23	28.7
Others	0	0
Total	80	100.0

Table 1 shows a summary of the socio-demographic characteristics of the pregnant women who participated in the study. A total of 80 women attending ante natal clinic were included in the study with distribution between 3 health facilities in Ile –Ife. The majority of the participants were in the age range of 20-24 years. Most of the women were married. 71.3% of the women were Christians. All the women were engaged in one occupation or the other. Majority of the women had some education ranging from primary to higher education which means that they were not illiterates.

Table 2 Assessment of respondents' sources of information

Source of information	No of respondents	%
Neighbour/friend	37	46.25
Nurse/health worker	17	21.25
Mum/relative	14	17.50
Radio/television	12	15.00
Total	80	100

The above table gives a summary of the respondents' sources of information about ante natal clinic/ante natal care. Majority of the pregnant women heard about ante natal clinic/care from neighbours and friends.

Table 3 Obstetric characteristics of the participants

Characteristics	No of respondents	%
Parity (number of children)		
Nulliparous	28	35.0
1 or more children	52	65.0
Total	80	100
<b>Gravidity (number of previous</b>		
pregnancies)		
Primigravida	28	35.0
Multigravida	25	31.3
Grand multigravida	27	33.7
Total	80	100.0
Age of last child (years)		
< 2	15	28.8
2-5	15	28.8
>5	22	42.4
Total	52	100.0
Ante natal care entry	No of respondents	%
Early	25	31.2
Late	55	68.8
Total	80	100.0

The table above shows the obstetrics characteristics of women who participated in the study. 65% of the women had 1 or more children before while 35% have not had any child before. Most of the women (65%) had 3 or more previous pregnancies. Information on initiation of ANC revealed that 68.8% booked for ANC late.

Table 4 Respondents' pattern of attendance of antenatal clinic

Pattern of attendance	No of respondents	%
Non-regular (Defaulters)	33	41.3
Regular (Non-defaulters)	47	58.7
Total	80	100.0

From the above table, 33 (41.3%) were defaulters and 47 (58.7%) were those who were always present at the clinic at the appointment day. A woman who starts attending clinic as from the 12<sup>th</sup> week of gestation will attend not less than 12 times before birth. Others come later than 12<sup>th</sup> week of gestation and therefore the number of times of ante natal clinic attendance will be less than 12 times. Any pregnant woman who failed to attend antenatal clinic for about two times or more consecutively is termed a defaulter and needs to be followed up.

Table 5. Defaulters by the number of times of non-attendance at the antenatal clinic

Time of registration	No of respondents (N=33)	No of attendance expected	No of times defaulted
Registration at 12	2	12 times	3
weeks	$\frac{1}{2}$	12 times	$\frac{3}{2}$
Registration at 13	1	11 times	2
weeks	2	11 times	3
	2	11 times	2
Registration at 16	2	11 times	3
weeks	2	11 times	2
Registration at 20	1	10 times	4
weeks	2	10 times	2
	2	10 times	3
Registration at 22	1	9 times	3
weeks	2	9 times	2
	2	9 times	4
Registration at 24	1	9 times	3
weeks	2	9 times	4
	2	9 times	2
Registration at 26	1	8 times	4
weeks	2	8 times	3
	2	8 times	2

The table above shows the summary of the attendance of defaulters for antenatal care and the number of times each defaulted.

Table 6. Respondents by the factors associated with defaulting at the antenatal clinic

Variables	No. of respondents	%
Lack of money/finance	7	21.2
Occupation/busy schedule	10	30.3
Absence of illness	9	27.3
Distance	7	21.2
Total	33	100

The table above gives a summary of the factors the defaulters gave as reasons for defaulting at ante natal clinic. 10 (30.3%) defaulted because of their occupation/busy schedule, 9 (27.3%) defaulted because of absence of illness/healthy status.

Table 7 Factors associated with regular attendance at the antenatal clinic

Variables	No of respondents	%
Beneficial to me and my baby	17	36.2
To know my health status and that of	20	42.5
my baby	10	21.3
For good care before delivery		
Total	47	100

Table 7 gives a summary of the factors associated with the attendance at ante natal clinic by the non-defaulters. The pregnant women who never defaulted did so because of adequate knowledge on the benefits of ANC to them and their babies.

#### **Discussion**

Improving maternal health care, particularly providing ante natal and delivery care, are important mechanisms identified to reduce maternal mortality and as such facilitate the attainment of the Millennium Development Goals on maternal health (WHO/UNICEF, 2003). Information gathered in this study revealed that 41.3% of the participants were defaulters and 68.8% registered late for ANC. Even those who registered still defaulted along the way. This result is slightly lower than what was reported in another Nigerian study where the prevalence rate of defaulters and late ANC attendance was 81% and higher than 41% established in an Australian study (Adekanle & Isawumi, 2008; Trinh & Rubin, 2006).

#### Factors associated with maternal default and attendance at ANC

Results from the study revealed that maternal default at ANC was due to reasons ranging from lack of money for transportation, purchase of necessary materials or undergoing some tests in the clinic. Some missed their clinic days because of their occupation/busy schedule. The women reported that sometimes they are not given permission in their workplace while some go to market to sell their goods especially when the clinic day falls on a major market day so that they can fend for their family as well as earn money to spend. This study established that there was a tendency of default and late registration for ANC among women of high parity and gravidity. It is possible that these women feel more confident after previous experience and feel that attending clinic at every appointment day is not necessary. It could also be as a result of negative perceptions about previous pregnancy experiences or limited family resources or support. Others default because they are healthy and do not have any serious health challenge and hence stay away until the time of delivery. Another reason given by some of the pregnant women was distance as they live far away in rural areas far from the selected health facilities which are disproportionately distributed in favour of urban areas in most developing countries making them more accessible and available to urban women. A study conducted in Haiti revealed that longer travelling time and greater distances to health facilities in rural areas constituted the greatest barriers to ante natal care utilization (Alexandre et al, 2005).

Regarding regular attendance at ANC, the study revealed that women with adequate knowledge about ANC, attended regularly. It was established that women with adequate knowledge were likely to initiate ANC early and attend regularly compared to those without adequate knowledge. This finding is similar to what Tariku and others found out in their study that women who were well informed about ANC were more likely to book for ANC within recommended time (Tariku et al, 2010). Furthermore, this study was able to establish that pregnant women who had the perception of no benefits tend to start ANC late or default. Therefore, it could be concluded that health education could be important in the improvement of timing of ANC attendance and attending regularly.

## Limitations of the study

Considering that the study was conducted at health facilities (institution based), there is possibility that factors related to attitude of health workers could have been avoided. Also the study may suffer from lack of generalizability as the study involved only three government owned health facilities in Ile-Ife town.

#### Conclusion

Non-attendance or default at ante natal clinic as well as late registration for ANC was discovered among the participants. A number of factors were found to contribute to this problem. Therefore, strategies and approaches that involve all stakeholders should be used to address the matter at hand. Resources could be effectively and efficiently harnessed to improve ANC attendance and increase early ANC attendance.

## Recommendations

- 1. The government and the Ministry of Health should create more awareness about ante natal care in every nooks and cranny of the country, town, cities and villages through the media and community sensitization meetings.
- **2.** Nurses and midwives should follow up the mothers that default and educate them on the importance of regular attendance at ANC.
- **3.** Government through the Ministry of Health should build health facilities not too far away from where people live for accessibility, availability and utilization. This will prevent the problem of long distance.
- 4. The government should ensure that Traditional Birth Attendants and people who take care of pregnant women in mission homes undergo training on the need for ante natal care. Through this, they will help to stress to pregnant women who patronize them.

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#### References

- [1]. Adamu, S.H. (2011). Utilization of Maternal Health Care Services in Nigeria: An Analysis of Regional Differences in the Patterns and Determinants of Maternal Health Care Use. Thesis, University of Liverpool.
- [2]. Adamu YM, Salihu HM (2002). Barriers to the use of antenatal and obstetric care services rural Kano, Nigeria. *J Obstet Gynaecol*, 22:600-603.
- [3]. Adekanle, D.A., & Isawumi, A.I. (2008). Late Antenatal Care Booking and Its Predictors Among Pregnant Women in South Western Nigeria, *Online Journal of Health Allied Sciences* Vol. 7 Issue 1(4): 1-6.
- [4]. Afsana K. (2004). The tremendous cost of seeking hospital obstetric care in Bangladesh Reprod Health Matters; 12(24):171–180. doi: 10.1016/S0968-8080(04)24142-8.
- [5]. Ajayi IO, Osakinle DC (2013). Socio demographic factors determining the adequacy of Antenatal care among pregnant women visiting Ekiti state Primary Health Centers.
- [6]. Alexandre, P.K., Saint-Jean, G., Crandall, L., Fevrin, E. (2005). Prenatal Care Utilization in Rural Areas and Urban Areas of Haiti. Rev Panam Salud Publica. 18(2): 84-92.
- [7]. Anh, Trinh & Tuyet (2002). Factors Related to The Acceptance of the New Antenatal Care Protocol among Health Personnel in Suphan Buri Province, Thailand. {M.P.H.M Thesis in Public Health}.Bangkok: Faculty of Graduate Studies, Mahidol University.
- [8]. Arthur E. (2012). Wealth and antenatal care use: implications for maternal health care utilization in Ghana. *Health Econ Rev.* 2012; 2(14):1-18.

- [9]. Asmaw T, Alemu A, Alemu A, Unakal C (2013). Prevalence of malaria and HIV among pregnant women attending antenatal clinics at felegehiwot referral hospital and Addis zemen health center. *Int J Life SciBiotechnol Pharma Res*; 2:1-13.
- [10]. Barnhart, K.T., Casanova, B., Sammel, M.D., Timbers, K., Chung, K., & Kulp, J.L. (2008). Prediction of location of a symptomatic early gestation based solely on clinical presentation. Obstetrics and Gynaecology. 2008; 112(6): 1319-26.
- [11]. Carroli G, Villar J, Piaggio G, Khan-Neelofur D, Gulmezoglu M, Mugford M, Lumbiganon P, Farnot U, Bersgjo P (2001). WHO systematic review of randomised controlled trials of routine antenatal care. *Lancet*, 357:1565-1570.
- [12]. CSA, ICF International. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International, 2012.
- [13]. Delva, W., Yard, E., Luchters, S., Chersich, M.F., Muigai, E., Oyier, V. et al. (2010). A Safe Motherhood project in Kenya: assessment of ante natal attendance, service provision and implications for PMTCT. Tropical Medicine & International Health: TM & IH.2010; 15(5): 584-91.
- [14]. Doctor HV, Bairagi R, Findley SE, Helleringer S (2011). Northern Nigeria maternal, newborn and child health programme: selected analyses from population-based baseline survey. *Open Demography J*; 4:11-21.
- [15]. Emelumadu O F, Ukegbu A U, Ezeama N N, Kanu O O, Ifeadike C O, Onyeonoro U U. (2014). Socio-demographic determinants of maternal health-care service utilization among rural women in Anambra State, South East Nigeria. Ann Med Health Sci Res 2014; 4:374-82.
- [16]. Gao Y, Barclay L, Kildea S, Hao M, Belton S. (2010). Barriers to increasing hospital birth rates in rural Shanxi Province, China. Reprod Health Matters; 18(36):35–45. doi:10.1016/S0968-8080(10)36523-2.
- [17]. Gebrehiwot T, Goicolea I, Edin K, Sebastian MS (2012). Making pragmatic choices: women's experiences of delivery care in Northern Ethiopia. BMC Pregnancy Childbirth; 12(1):113. doi: 10.1186/1471-2393-12-113.
- [18]. Gupta M Das, Engelman R, Levy J, Luchsinger G, Merrick T, James E. Rosen (2014). State of World Population 2014: The Power of 1.8 Billion Adolescents, Youth and Transformation of the Future.
- [19]. Hodginsa S, D'Agostino A. (2014). The quality–coverage gap in antenatal care: toward better measurement of effective coverage. *Glob Heal Sci Pr*; 2:173-81.
- [20]. Ibeh, C. (2008). Is poor maternal mortality index in Nigeria a problem of care utilization? A case study of Anambra State. *African Journal of Reproductive Health*, 2008:12(2), 132–140. http://doi.org/10.2307/25470656.
- [21]. Izugbara CO, Kabiru CW, Zulu EM. (2009). Urban poor Kenyan women and hospital-based delivery. Public Health Rep; 124 (4):585–589.
- [22]. Khan M, Pillay T, Moodley JM, Connolly CA. (2001). Maternal mortality associated with Tuberculosis-HIV-1 co- infection in Durban, South Africa. *AIDS*, 15:1857-1863.
- [23]. Lincetto O, Mothebesoane-anoh S, Gomez P, Munjanja S. (2010). Antenatal Care: Opportunities for Africa's Newborns.
- [24]. Luke E, Ramana GNV, Rosen J. (2010). Maternal and Reproductive Health Services. Washington DC:
- [25]. Magadi M, Madise N, Diamond I, (2001). Factors associated with unfavourable birth outcomes in Kenya. *J Biosoc Sci*, 33:199-225.
- [26]. Moyer CA, Adongo PB, Aborigo RA, Hodgson A, Engmann CM, Devries R. (2013). Matern Child Health J. "It's up to the Woman's People": How Social Factors Influence Facility-Based Delivery in Rural Northern Ghana.
- [27]. Mwaniki PK, Kabiru EW, Mbugua GG. (2002). Utilization of antenatal and maternity services by mothers seeking child welfare services in Mbeere District, Eastern Province, Kenya. *East Afr Med J*, 79:184-187.
- [28]. Myles, M. (1996). Textbook for Midwives,  $12^{th}$  edition, New York: Churchill, Livingstone, Medical Division of Longman Group, UK. Ltd.

- [29]. National HIV/AIDS and Reproductive Health and Serological Survey, (2012) (NARHS Plus). Federal Ministry of Health,, Abuja, Nigeria; 2013.
- [30]. National Population Commission (NPC) (2008). Nigeria Demographic and Health Survey. Abuja: Macro International Inc, FMOH. Http://web.worldbank.org
- [31]. Onuzulike NM. (2009). Health care delivery system. Owerri: Achugo Publishers.
- [32]. Orvos, H., Hoffman, I., Frank, I., Katona, M., Pal, A., Kovacs, L. (2002). The perinatal outcome of pregnancy without prenatal care A retrospective study in Szeged, Hungary. *European Journal of Obstetrics Gynecology and Reproductive Biology* 100: 171-173.
- [33]. Osubor KM, Fatusi AO, Chiwuzie JC. (2006). Maternal health-seeking behavior and associated factors in a rural Nigerian community. Maternal Child Health J; 10(2):159–169. doi: 10.1007/s10995-005-0037-z.
- [34]. Osungbade K, Oginni S, Olumide A. (2008). Content of antenatal care services in secondary health care facilities in Nigeria: implication for quality of maternal health care. *Int J Qual Heal Care*; 20:346-51
- [35]. Otis KE, Brett JA. (2008). Barriers to hospital births: why do many Bolivian women give birth at home? Rev PanamSaludPublica. 2008; 24(1):46–53. doi: 10.1590/S1020-4989200.
- [36]. Oyerinde K, Harding Y, Philip A, Garbrah-Aidoo N, Kanu R, Oulare M, Shoo R, Daoh K. (2012). Barriers to Uptake of Emergency Obstetric and Newborn Care Services in Sierra Leone: A Qualitative Study. J Commun Med Health Educ;2(5):1–8.
- [37]. Pitchforth E, Van Teijlingen E, Graham W, Dixon-Woods M, Chowdhury M. (2006). Getting women to hospital is not enough: a qualitative study of access to emergency obstetric care in Bangladesh. QualSaf Health Care; 15 (3):214–219. doi:10.1136/qshc.2005.017285.
- [38]. Ray AM, Salihu HM. (2004). The impact of maternal mortality interventions.
- [39]. Sibley LM, Sipe TA, Koblinsky M. (2004). Does traditional birth attendant training increase use of antenatal care? A review of the evidence. *J Midwifery Womens Health* 2004, 49:298-305.
- [40]. Smith JB, Coleman NA, Fortney JA, Johnson JD, Blumhagen DW, Grey TW. (2000). The impact of traditional birth attendant training on delivery complications in Ghana. *Health Policy Plan*, 15:326-331.
- [41]. Stevens-Simon C, Beach R & McGregor J.A. (2002). Does Incomplete Growth and Development Predispose Teenagers to Preterm Delivery? A Template for Research. Journal of Perinatology; 22(4): 315-323.
- [42]. Sullivan, O. (1990). An Introduction to Obstetrics. A General textbook on Nursing, twentieth edition, London.
- [43]. Tariku, A., Melkamu, Y., & Kebede, Z. (2010). Previous utilization of service does not improve timely booking in ante natal care: Cross sectional study on timing of antenatal care booking at public health facilities in Addis Ababa. *Ethiopian Journal of Health Dev. Page* 226-233.
- [44]. Thaddeus S, Maine D. (1994). Too far to walk: Maternal mortality in context. Soc Sci Med. 1994; 38 (8):1091–1110. doi: 10.1016/0277-9536(94)90226-7.
- [45]. Trinh, T.T.L. and Rubin, G. (2006). Late entry to antenatal care in New South Wales, Australia Biomed Central. *Journal of Reproductive Health*, 3:8.
- [46]. UNICEF Eastern and Southern Africa Regional Office: Maternal Mortality Reduction Strategy. 2003.
- [47]. UNICEF, 2009. Maternal and Newborn Health. www.unicef.or/protection/SOWC09- FullReport-EN.pdf
- [48]. United Nations (2005). The Millennium Development Goals Report. New York, USA; 2006. Using traditional birth attendants and village midwives. *J Obstet Gynaecol*, 24:5-11.
- [49]. Villar J, Ba'aqeel H, Piaggio G, Lumbiganon P, Miguel BJ, Farnot U, Al-Mazrou Y, Carroli G, Pinol A, Donner A, Langer A, Nigenda G, Mugford M, Fox-Rushby J, Hutton G, Bergsjo P, Bakketeig L, Berendes H, Garcia J (2001). WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care. *Lancet*, 357:1551-1564.
- [50]. Wild K, Barclay L, Kelly P, Martins N. (2010). Birth choices in Timor-Leste: a framework for understanding the use of maternal health services in low resource settings. Soc Sci Med; 71 (11):2038–2045. Doi:10.1016/j.socscimed.2010.09.012. World Bank Group; [cited 2011 October 5].

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- [51]. WHO (1994). Maternal and Newborn health. Second Report on the Joint WHO Committee on Ante natal care Technical Report Series.
- [52]. WHO (1994). Maternal and Safe Motherhood. Report on the Joint WHO Committee on Mother-Baby Package. Technical Report Series.
- [53]. WHO (2003). ANC in Developing Countries. Promises, Achievements and missed opportunities.
- [54]. WHO (2006). Provision of Focused Antenatal Care for Pregnant Women, Geneva.
- [55]. World Health Organization, Department of Reproductive Health and Research, Family and Community Health (2003). Integrated management of pregnancy and childbirth. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Geneva, Switzerland.
- [56]. World Health Organization, UNICEF (2003). Antenatal care in developing countries. Promises, achievements and missed opportunities. An analysis of trends, levels and differentials, 1990–2001. Geneva, Switzerland.
- [57]. World Health Organization, UNICEF, UNFPA (2004). Maternal mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA. Geneva, Switzerland. ZDHS, 2007. The Zambia Demographic and Health survey key findings.