

Reproductive Health of Women in Nigeria

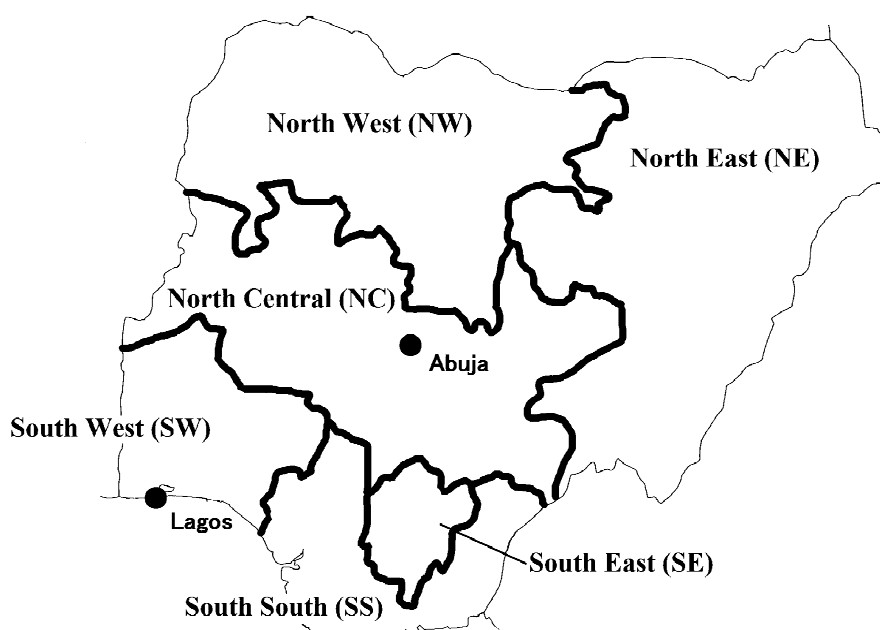
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INTRODUCTION

Reproductive health of women is one of the major health challenges worldwide, particularly in resource-poor countries such as Nigeria. Women represent a vulnerable population group as a result of biological and gender-related differences. Reproductive ill-health accounts for 20% of the global burden of ill-health of women (compared to 14% for men). In a given population, the health of women is an indirect measure of the health of the population. The health status of countries has been assessed using women's reproductive health indicators such as maternal mortality rates, antenatal care coverage, proportion of delivery supervised by skilled birth attendants, unmet need for contraception and so on. The international community's plan of action to accelerate global development also focuses on women's reproductive health. The International Conference on Population and Development (ICPD) and the Millennium Development Goals (MDGs), both set goals to reduce maternal mortality and improve access to reproductive health services. The MDG 5 target is to reduce maternal mortality by three-quarter and achieve universal access to reproductive health by the year 2015.

Nigeria has an estimated population of over 140 million people and is the most populous country in Africa.¹⁾ Nigeria has a relatively young population with 40% of young people. About two-third of the population live in rural areas, and most rural dwellers are involved in the agricultural sector. In 2008, the adult literacy rate for both sexes was 74.8%. Nigeria has three-tiers of government (federal/national, state and local government) and the country is divided into six geopolitical zones namely North Central (NC), North East (NE), North West (NW), South East (SE), South South (SS), and South West (SW). The zones differ from each other in size, population, ecological characteristics, language, culture, settlement patterns, economic opportunities and historical background. Nigeria derives its national revenue mainly from crude oil. In 2012, the Gross Domestic Product (GDP) per capita was \$1,555 and Gross National Income (GNI) per capita was \$1,440.²⁾ The World Bank estimates that about 70% of the population lives on less than \$ 2 per day.²⁾

Nigeria has a high total fertility rate estimated at 5.5 births per woman (compared to a world average of 2.5).³⁾ The fertility preference of Nigerian women is closely related to the number of living children. Despite the decline in childhood deaths, fertility rate has remained high partly due to the low contraceptive prevalence rate and the high unmet need for contraception. The contraceptive prevalence



Map 1 Geopolitical zones in Nigeria

rate is estimated at 15%.³⁾ In 2010, the life expectancy at birth was estimated at 48.4 years. The health system in Nigeria is largely driven by the public sector. The national government's health expenditure per capita and budget allocation to reproductive health are low. The healthcare infrastructure and manpower are grossly inadequate, with most of the available healthcare resources located in urban areas. Healthcare financing is mainly through personal income or out-of-pocket payment. Healthcare is inaccessible to majority of the population. Most people seeking healthcare services patronize traditional healers or unorthodox healthcare providers.⁴⁾

Women in Nigeria face numerous reproductive health challenges such as an unacceptably high maternal mortality rate (MMR), high unmet need for contraception, infertility, human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) epidemic and so on. Interestingly, wide disparity in women's reproductive health exists between different geographical zones within Nigeria due to social, cultural, environmental, and physical factors. This article is an overview of the common reproductive health challenges of women in Nigeria.

1. MATERNAL MORTALITY

Nigeria accounts for about 10% of maternal deaths worldwide. The MMR in Nigeria is estimated at 545 maternal deaths per 100,000 live births.⁵⁾ There is large disparity in MMR between the different zones in Nigeria. In Nigeria, about three-fifths of pregnant women receive antenatal care (at least once) from a skilled provider and only 38.1% of the deliveries are supervised by skilled birth attendant [Table 1].³⁾ Only one-third of pregnant women delivered in health facilities.³⁾ Most childbirth occurred at home under the supervision of unskilled birth attendants such as traditional birth attendants (TBAs). Home births supervised by traditional TBAs have been linked to maternal deaths in Nigeria.^{6, 7)} Women

Table 1 Utilization of maternal health services and HIV prevalence in Nigeria

Characteristics	% who received ANC from SP†	% who were Delivered by SP†	% who Delivered in HF†	% Contraceptive user†	% HIV prevalence‡
Age (Years)					
< 20	47.8	25.2	24.5	2.1	3.0
20- 34	63.0	41.1	38.3	42.8	5.2
35- 49	61.1	37.3	35.1	55.9	4.3
Residence					
Urban	86.0	67.0	61.7	27.0	2.7-18.0
Rural	46.5	22.7	21.9	9.0	0.7-21.3
Zone					
North Central	67.0	46.5	45.7	15.6	7.5
North East	49.3	19.9	19.5	3.2	4.0
North West	41.0	12.3	11.5	4.3	2.1
South East	90.6	82.2	78.1	29.3	5.1
South South	73.0	55.4	50.1	28.1	6.5
South West	90.4	82.5	75.0	38.0	2.9
Education					
No education	36.2	11.7	11.2	2.7	4.5
Primary	71.5	44.3	41.5	19.9	6.2
Secondary	87.6	71.7	65.9	29.2	6.1
Post secondary	97.3	93.2	91.3	37.0	4.9
Total	60.6	38.1	35.8	15.0	4.1

† National Demographic Health Survey 2013 Preliminary Report

‡ Technical Report on the 2010 National HIV Sentinel Survey among Pregnant Women Attending Antenatal Clinics in Nigeria

SP: Skilled provider

HF: Health facility

ANC: Antenatal care

HIV: Human immunodeficiency virus

resident in rural areas and in Northern part of Nigeria (NE and NW geographical zones) are less likely to utilize antenatal care and institutional delivery. In Nigeria, MMR shows an inverse relationship with antenatal coverage, births assisted by skilled health personnel, and level of education.³⁾ The NE zone has the highest MMR, while the SW zone has the lowest rate. In addition to the lack of access and low utilization of reproductive health services in Northern part of Nigeria, the high MMRs in this region is partly due to negative cultural practices such as early marriage and high parity.

Traditionally, the causes of maternal deaths have been categorized as direct and indirect causes. The direct causes account for about 80% of maternal death, while indirect causes account for the remaining deaths. In Nigeria, the major causes of direct maternal deaths are postpartum hemorrhage, puerperal sepsis, unsafe abortion, severe preeclampsia/eclampsia and obstructed labour; while indirect maternal deaths are mainly due to HIV/AIDS, anaemia, and malaria.⁸⁻¹⁰⁾ The proportion of maternal deaths attributed to each one of these causes will vary from one location to another. Different studies have reported the leading cause of maternal mortality as severe preeclampsia/eclampsia,^{9, 11, 12)} obstetric hemorrhage,^{8, 13)} and puerperal sepsis.¹⁴⁻¹⁶⁾ Most maternal deaths are due to delays in accessing quality reproductive health services.^{17, 18)} There is a complex interaction between social, economic and political factors that contributes to maternal deaths. Nigeria faces widespread poverty, high levels of gender inequality, low socioeconomic status of women, low levels of education, and limited access to maternal health services.¹⁹⁾ The factors responsible for the poor access to, and the low utilization of, maternal health services include: cost of healthcare (direct and indirect cost), cultural and religious

beliefs, negative attitude of the healthcare providers, lack of skilled healthcare personnel, ill-equipped health facilities, lack of essential drugs and equipment, inadequate numbers of health facilities, long distance to health facilities, transportation barriers and so on.

In developed countries, apart from improved access to quality reproductive health services, the non-health related services such as female education, improved water source, good roads and transportation services, adequate means of communication, appropriate legal framework and policy have contributed immensely to the low MMRs. For developing countries to achieve the desired reduction in MMRs, the provision of non-health related services must be complementary to the provision of reproductive health services such as antenatal care, institutional delivery supervised by skill birth attendants, emergency obstetric care (EOC), effective contraception, safe abortion services and post-abortion care. The most comprehensive approach for reducing the disparity and inequality in women's reproductive health was integrated in the MDGs.

1.1. Obstetric Hemorrhage

Obstetric haemorrhage accounts for 25% of global maternal deaths and most deaths are due to postpartum hemorrhage (PPH). In Nigeria, PPH account for up to 35% of maternal deaths in hospital-based studies.¹³⁾ Hospital-based report of PPH may be grossly underestimated because most deliveries occur outside health facilities, particularly in the rural areas. The commonest cause of PPH is uterine atony. In Nigeria, the identifiable risk factors for PPH include: high parity, low socioeconomic status, chronic anaemia, delayed second and third stages of labour, unsupervised labour or labour supervised by unskilled birth attendants, mismanaged third stage of labour and retained placenta.²⁰⁻²²⁾ Active management of third stage of labour by skilled birth attendants can reduce the incidence of PPH. Following PPH, anaemia and hemorrhagic shock are common complications that can lead to maternal death. In most cases, the delays in accessing high-quality comprehensive EOC (such as safe blood transfusion services and operative interventions) are responsible for the maternal death. In Nigeria, most maternity facilities do not offer comprehensive EOC due to lack of skilled manpower and infrastructure for surgical intervention, and non-availability or lack of blood transfusion services.

Various governments have employed different strategies to increase the proportion of deliveries supervised by skilled birth attendants and to improve access to EOC. These strategies include the provision of; skilled birth attendants in rural communities through the midwifery service scheme, health facilities with the capacity to offer EOC, communication and transportation equipment, free-of-charge maternal and child healthcare services, national policy on blood transfusion and so on. In addition, the availability of protocols and guidelines for management of PPH and the use of non-pneumatic anti-shock garments in referral health facilities will further reduce maternal death due to PPH.²³⁾ Since the majority of women in Nigeria deliver at home, community mobilization on the need to utilize antenatal care services and hospital delivery services will significantly improve access to quality maternity care. In Nigeria, community-based use of misoprostol has been shown to be a safe and effective low-technology intervention for treatment of PPH.²⁴⁾

1.2. Puerperal Sepsis

Puerperal sepsis usually follows prolonged labour or delivery in an environment that lacks the minimum health standards for clean safe delivery. In Nigeria, puerperal sepsis accounts for up to 17.8% of

maternal deaths and recent increase may be linked to the HIV/AIDS epidemic.¹⁴⁾ The identifiable risk factors for puerperal sepsis include: home delivery, unbooked status, young maternal age, perineal trauma and caesarean section.²⁵⁾ Most childbirths occur in unhygienic settings, especially among pregnant women who deliver at home. In some situation, home delivery is associated with the insertion of non-sterile objects (such as herbs) into the vagina.²⁶⁾ These harmful cultural practices predispose the women to chorioamnionitis and puerperal sepsis. In Nigeria, most health facilities that offer maternity services lack appropriate policies and protocols for infection control.²⁷⁾

Improved access to quality maternity care and EOC will drastically reduce the incidence and mortality from puerperal sepsis. Community mobilization and provision of sterile birth kits for home delivery will further curtail this preventable cause of maternal death.

1.3. Abortion

Abortion accounts for approximately 13% of maternal deaths worldwide, roughly 47,000 deaths per year. At least half of maternal deaths are due to complications of induced abortion. Unwanted pregnancy is the main cause of induced abortion. Almost one-third (28%) of Nigerian women of reproductive age have had an unwanted pregnancy. Induced abortion is illegal and is usually carried out as a clandestine procedure in unsafe circumstances. Though illegal in Nigeria, about 760,000 induced abortions occur yearly.²⁸⁾ Most of the induced abortions are unsafe abortions. The affected individuals are usually young, unmarried, childless women and married women with children who want to postpone or stop another birth. It was found that 60% of abortion seekers are young persons and about 63.2% of them are unmarried.²⁹⁾ The common reasons for terminating an unwanted pregnancy included: being students and interruption of education, being unmarried, short inter-pregnancy interval, and high-cost of raising children.^{29, 30)} Among women of reproductive age, being unmarried at the time of pregnancy was identified as the strongest predictor of induced abortion.³¹⁾ The high prevalence of unwanted pregnancy is partly due to the poor knowledge of contraception and the low levels of contraceptive use.^{29, 30, 32)} Among women who sought abortion for unwanted pregnancies, 61% were not using any method of family planning when they conceived, 33% were using a modern method, and 6% were using traditional methods.²⁸⁾

The likelihood of complications following unsafe abortion depends on the duration of pregnancy and the method used for the induced abortion. Nearly half (48%) of the induced abortions were performed using surgical methods (either a dilation and curettage or a manual vacuum aspiration) in a health facility.³³⁾ In Nigeria, about 42% of induced abortions were performed by non-physicians and a quarter of abortion seekers develop complications [Table 2].³³⁾ Delay in reporting complications of induced abortion is partly due to the fact that abortion is illegal. The serious consequences of unsafe abortion include: heavy bleeding, sepsis, instrumental injury to the genital tract and viscera, uterine synechiae, secondary infertility and cervical incompetence. Sepsis and hemorrhagic shock are common causes of maternal death following unsafe abortion.³⁴⁾

In Nigeria, the factors that contribute to maternal death from abortions include: inadequate delivery system for contraception to prevent unwanted pregnancy especially in young persons, restrictive abortion laws, lack of access to safe abortion services, negative cultural and religious attitude towards induced abortion, and lack of adequate post-abortion care.^{35, 36)} Therefore, improved access to contraception especially amongst adolescents, liberalization of abortion laws, provision of safe abortion

Table 2 Complications of unsafe abortion

Heavy vaginal bleeding
Anaemia
Endometritis
Pelvic infection
Sepsis and septic shock
Uterine perforation with injury to viscera (small and large bowel, and urinary bladder)
Cervical laceration
Uterine synechiae
Secondary amenorrhoea
Secondary infertility
Cervical stenosis
Cervical incompetence
Preterm delivery

and post-abortions services, and universal access to sexual and reproductive health services are interventions that can drastically reduce abortion-related maternal deaths in Nigeria.

1.4. HIV and AIDS

Sub-Saharan Africa (SSA) has the highest prevalence and incidence of HIV infection worldwide, mostly attributed to heterosexual transmission. Of the estimated 35.3 million people living with HIV/AIDS (PLWHA) worldwide, about 3.1 million of them live in Nigeria. Nigeria has the second largest burden of HIV in the world (second to South Africa). Among PLWHA in Nigeria, females constitute 58% of the adult population aged 15 years or more and about 55% of new infections occur in females.³⁷⁾ In high-prevalence countries, the female preponderance of HIV infection may be due to the early vulnerability and biological susceptibility. In 2010, women of the age group 30-34 years had the highest prevalence rate (5.7%) of HIV in Nigeria.³⁷⁾ Wide disparity in HIV prevalence exists in Nigeria. The North Central zone has the highest HIV prevalence (7.5%) and the North West has the lowest prevalence [Table 1]. HIV/AIDS has contributed significantly to the rise in maternal mortality from indirect and direct causes.¹⁴⁾ Most maternal deaths are due to infectious diseases such as tuberculosis, pneumonia, meningitis, encephalitis, puerperal sepsis and post-abortal sepsis. In recent years, the reduction in life expectancy is partly due to the effect of the HIV/AIDS epidemic in Nigeria.

HIV/AIDS epidemic has several social and economic consequences, with devastating impact on the economic stability, agricultural production, food supply and healthcare of the affected countries. In Nigeria, the high prevalence of HIV/AIDS has been linked to a complex relationship between several factors that support the spread of HIV infection such as low literacy level, high unemployment rates, poverty, low socio-economic status, migration, attitudes towards condom use, and sexual behaviors of partners. Among adolescents and younger persons, a decline in sexual HIV transmission has been noted and attributed to a change in sexual behaviors such as delayed sexual debut, high level of condom use and reduction in multiple partners.

2. CONTRACEPTION

SSA has a low contraceptive prevalence rate with an estimated average of 17% (compared to about 85% in developed countries). Contraceptive prevalence rate in Nigeria is estimated at 15% and two-

Table 3 Contraceptive choices in Nigeria and Great Britain

Method	Nigeria*	Great Britain** (2003/2004)
	%	%
Pills	1.8	25.0
Intrauterine device	1.1	4.0
Injectables	3.2	3.0
Male condom	2.1	23.0
Female sterilization	2.1	11.0

* Nigeria Demographic and Health Survey 2013

** Long-acting Reversible Contraception. National Collaborating Centre for Women's and Children's Health (UK) 2005

thirds of current contraceptive users use modern methods.³⁾ In general, the knowledge and acceptability of modern contraception is low. In Nigeria, the contraceptive prevalence rate is higher in urban than rural areas [Table 1] and the most commonly used modern methods are injectable (3%), male condom (2%) and pills (2%).³⁾ The contraceptive use of condoms and pills is relatively low, even though both methods are readily available over-the-counter and do not need a provider [Table 3]. Most adolescents are ignorant of their sexuality and contraception. Only 2% of married women aged 15-19 years use modern contraception [Table 1].³⁾ Among adolescents, the high prevalence of unwanted pregnancy is linked to the high unmet need for contraception. Available data suggests that the complications of pregnancy and childbirth are a leading cause of death for older adolescents.

The major barriers that limit access to effective modern contraception include: cultural and religious values, low socioeconomic status, financial barriers and regional/geographical barriers. In addition, poor utilization of contraceptive services may be due to ignorance, fear of side effect, fear of becoming temporarily infertile, and fear of husband or community disapproval.

The provision of high-quality family planning services, social marketing and community education are strategies for improving the utilization of family planning services in Nigeria. Among adolescents, sexuality education and provision of youth-friendly services will significantly improve the utilization of reproductive health services. Most importantly, the introduction of age-appropriate sexuality education at an early age will lead to a life-long utilization of reproductive health services including contraception. It is estimated that about 32% of all maternal deaths can be prevented by effective contraception. Therefore, universal access to effective contraception will decrease the high maternal mortality rate by a third.

3. INFERTILITY

Nigeria has a high prevalence of infertility and most couples have secondary (acquired) infertility. Tubal factor is the commonest cause of female infertility as opposed to ovulation dysfunction seen in developed countries [Table 4].^{38, 39)} Genital tract infection is the main cause of tubal factor infertility. The common infectious diseases that causes tubal factor infertility include: pelvic inflammatory disease, puerperal sepsis and post-abortion sepsis.⁴⁰⁾ Infection-related tubal-factor infertility is preventable and treatable. Most women with tubal factor infertility will require assisted reproductive technology (ART) or tubal surgery for treatment.³⁹⁾

In Nigeria, fertility is valued and great importance placed on childbearing. Infertile women would go

Table 4 Causes of female infertility in Nigeria and United Kingdom

	Nigeria*	UK**
	%	%
Tubal factor	35.9	20.0
Anovulation	26.5	25.0
Uterine factor	7.1	10.0
Male factor	10.2	30.0
Unexplained infertility	3.9	25.0

* Unpublished data from Lagos University Teaching Hospital.

** Fertility: Assessment and treatment for people with fertility problems. February 2013. NICE clinical guideline 156.

to great lengths to conceive and bear children. The ignorance of infertile couples and erroneous beliefs about the causes of infertility has led many couples to seek care from traditional and spiritual healers with no success.⁴¹⁾ Previously, infertility couples who require ART lack access to such reproductive health services mainly due to high-cost and non-availability of ART. Other barriers that limit couples' access to ART include: medico-legal, religious and cultural issues. In recent years, the number of health facilities in Nigeria that offer ART has increased in response to the health needs of infertile couple.

Infertility has social, economic and personal effects. The stigma of childlessness is quite profound, particularly of the women affected. Motherhood tends to define the woman's social life and social standing within the community, her self-respect and her understanding of womanhood.⁴²⁾ It can lead to marital disharmony, domestic violence, separation and divorce.⁴³⁾ Infertility is associated with significant psychiatric complications such as anxiety and depression.^{44, 45)} In Nigeria, child adoption as an option of management for infertility is faced with challenges such as cultural/traditional values, stigmatization, legislations, and financial implication.⁴⁶⁾

4. OBSTETRIC FISTULA

Obstetric fistula is a complication of pregnancy that results from prolonged or neglected obstructed labour.⁴⁷⁾ Obstetric fistula is an abnormal opening between the urinary bladder and the vagina (vesico-vaginal fistula or VVF) or between the rectum and the vagina (recto-vaginal fistula or RVF). Obstetric fistula usually develops following labour and child birth when the infant's head descends into the maternal pelvis and cannot pass through due to mechanical obstruction. The infant's head compresses maternal tissues against the hard bony pelvis, and constricts the blood supply and damages the tissue. Following tissue death and necrosis, an abnormal opening develops through which urine or faeces, or both, leaks into the vagina. VVF occurs more common than RVF. In developing countries, most cases of VVF develop as a result of inadequate or inaccessible EOC. In developed countries, most cases of VVF are due to iatrogenic injuries. Women with obstetric fistulae also develop other serious disorders such as sacral nerve palsy (foot drop), acquired gynaetresia, secondary amenorrhoea and infertility.⁴⁸⁾ Obstetric fistulae are considered a health and human rights tragedy.

The prevalence of obstetric fistula is higher in Northern part of Nigeria partly due to cultural practices such as child marriage and home births, and limited access to EOC. Obstetric fistula affects young, uneducated/illiterate, poor women, residing in rural areas.⁴⁹⁾ The affected women are usually

small and short statured; previously married but now divorced or separated.⁴⁹⁾ Most of the affected women are pregnant for the first time, and their childbirth and delivery is usually supervised by unskilled birth attendants. Obstetric fistulae are associated with psychological consequences such as anxiety, depression, feeling of shame, loneliness; and social consequences such as rejection from husband and society, failed marriage or union, loss of social network. Many are totally ostracized from society.

Obstetric fistulae can be avoided by delaying age at first pregnancy, the cessation of harmful traditional practices and early access to high-quality comprehensive EOC.

CONCLUSION

In Nigeria, women face enormous reproductive health challenges. Efforts to accelerate the attainment of the MDGs would lead to a rapid and significant improvement in women's reproductive health. The provision of widespread access to EOC and other reproductive health services, female education, cessation of harmful cultural practices, and enactment of enabling laws would greatly improve the reproductive health of Nigerian women.

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