Analysis of the factors affecting access to modern contraceptives in Nigeria

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ANALYSIS OF THE FACTORS AFFECTING ACCESS TO MODERN CONTRACEPTIVES IN NIGERIA

A thesis submitted in partial fulfillment of the requirement for the degree of Master of Science in Public Health

By
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Nigeria

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The thesis, **Analysis of the factors affecting access to modern contraceptives in Nigeria**, is my own work.

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List of abbreviations

ABR: Adolescent birth rate

CPR: Contraceptive prevalence rate

CRVS: Civil registration and vital statistics

CSO: Civil society organization

DHS: Demographic and Health Surveys

ECP: Emergency contraceptive pills

FBO: Faith-based organization

FP: Family planning

FMoH: Federal Ministry of Health

GPRHCS: Global Program to Enhance Reproductive Health Commodity Security

IUD: Intrauterine device

LARC: Long-acting reversible contraceptives

LAM: Lactational amenorrhea method

MC: Modern contraceptives

mCPR: Modern contraceptive prevalence rate

MDGs: Millennium Development Goals

MICS: Multiple Indicators Cluster Surveys

mPDS: PDS satisfied by modern methods

NHFA: National Health Facility Assessment

OCP: Oral contraceptive pills

PDS: Proportion of demand for contraception satisfied

RHCS: Reproductive health commodity security

SDP: Service delivery point

SDGs: Sustainable Development Goals

SMoH: State Ministry of Health

TD: Total demand

TFR: Total fertility rate

UNFPA: United Nations Population Fund

UMN: Unmet need for family planning

Acknowledgment

I am grateful to the Government of the Netherlands for the opportunity to advance my career here.
Special thanks to my tutors and advisors for the knowledge and skills you imparted to me.
To my colleague that made it less difficult to miss home, thank you all.

My parents, and siblings who continued to give me moral support, I love you all.
To the good Lord that has kept me from evil, I remain eternally grateful.

Abstract

Background

Nigeria is currently the world's seventh and Africa's most populous nation with a fast-growing population at a fertility rate of 5.5 per woman. Many of these women spend a substantial part of their lives having children in the context of a weak health system. The majority of the population are young and are in an average age of 18.3 years. A large cohort of these group arrive the reproductive age yearly and are at risk of poor maternal healthcare due to the weak health system.

Problems

Though only 2.6% of the world's total population, Nigeria contributes about 20% of all global maternal deaths. One of the main causes of this death is unsafe abortion most of which could be averted if unintended pregnancies are prevented with the use of modern contraceptives. However, despite years of investment in family planning, the use of modern contraceptives has remained low at 14%.

Objectives

To describe the factors that affect access to modern contraceptives (MCs) in Nigeria and identify effective strategies to improve the access in the Sub-Sahara African context, this thesis analyzed relevant literature using Jean Fredric Levesque (2013) model and made recommendations for evidence-informed best family planning (FP) practices.

Findings

The main findings include health system barriers such as failure to supply adequate information about modern contraceptives and poor supply of quality family planning commodities, and services, which are acceptable and responsive to the need of various groups of clients, especially the poor, young people and unmarried women. Community level barriers affecting demand for contraceptives include pronatalist, patriarchal and religious society that do not accept the autonomy and right of women and adolescent sexual right to contraceptive use. Individual level factors include misconceptions, fear of side effect and belief in family planning myths as well as inability to pay for contraceptives of choice. Evidence shows that strong policy level commitment and budgetary support for extensive family planning programs that ensure adequate supply

of modern contraceptives to reach the poor in the community and unmarried sexually active young people are key to improving modern contraceptives use.

Conclusions

The poor access to modern contraception in Nigeria is a result of a complex interplay of system, community and individual factors. To achieve significant improvement, there is a need for strong political will, community mobilization, and stakeholder collaboration behind a well-funded program that ensure access to sexual and reproductive health information, products and services to all, wherever they live, irrespective of their marital or socio-economic status.

Chapter 1

Introduction

1.1 Introduction

Contraception is defined as the intentional prevention of conception through various devices, sexual practices, chemicals, drugs or surgical procedures. An effective contraceptive allows individuals and couples to delink sexual activity from unintended pregnancy and ensures freedom to responsibly choose if, when and how many children they want to have. This has been regarded as a revolutionary intervention in sexual and reproductive health and rights in the 20th century (1).

Contraception provides both individual and population level advantages. At the individual level, it improves health related outcomes by reducing unintended pregnancy, maternal and infant mortalities. Schooling and socio-economic outcomes also improve for girls and women as it enhances their self-efficacy and employability and consequently improves women empowerment (2,3). At the population level, contraceptive use can accelerate fertility decline, thereby stimulating economic development through demographic dividends, while also enabling more women to participate in paid labor (4,5). Contraceptive use is therefore important in achieving sustainable development goals of good health and wellbeing, and gender equality (6).

However, low contraceptive prevalence rate (CPR), high unmet need (UMN) for contraception and restrictive abortion law in Nigeria means a high fertility rate. In a context of weak health system and poverty such higher fertility rate is partly responsible for the higher infant and maternal mortality in the country. With a population that is relatively young at the median age of 18.3 years, and also home to the highest number of people living in extreme poverty, there is a huge and increasing number of women of reproductive age (WRA) who need contraception (7).

While contraceptive prevalence rate and unmet need for contraception have significantly improved worldwide since the onset of family planning programs in Africa, Nigeria still lags significantly behind(8). Unmet need for modern contraception is responsible for 84% of unintended pregnancies and about 25% of such pregnancies end in abortion (9). Unsafe abortions remain one of the major causes of maternal morbidity and mortality in Nigeria. Consequently, the government of Nigeria at the London Summit on Family Planning on July 11, 2012, made a commitment to increase contraceptive prevalence rate (CPR) by 2% every year to achieve 36% by 2018 (10). However, despite the drive and collaboration of the federal government, international organization and funding partners, the contraceptive use among currently married women in Nigeria only increased from 15% in 2013 to 17% in 2018. Consequently, a new national target for modern contraceptive prevalence rate (mCPR) by 2020 was then

set to 27% (11). This thesis analyzes the factors affecting access to modern contraceptives in Nigeria and makes recommendations for improved contraceptive prevalence rate informed by the evidences and lessons learnt from other Sub-Sahara African countries with successful family planning programs.

Having worked for 10 years as a clinician, and later as a public health MCH program officer in Nigeria, my interest in MC is informed by my drive to promote cost effective public health interventions with far reaching impact on reducing poverty, hunger, gender inequality, and poor health indices in Nigeria. Therefore, writing my thesis on access to modern contraceptives offers me an opportunity for in-depth knowledge and a good foundation for my subsequent academic and professional engagement in maternal and child health (MCH) and sustainable development of the underserved populations.

1.2 Background

1.2.1 Demography

Nigeria is ranked number first in Africa and seventh in the world by population. The 2020 population is estimated at 206,139,589 people at mid-year according to UN data, and represent 2.64% of the total world population. It is a young population with the median age of 18 years with 42.54% between the ages of 0–14 (12). About 52.0 % of the population live in urban setting (107,112,526 people in 2020).

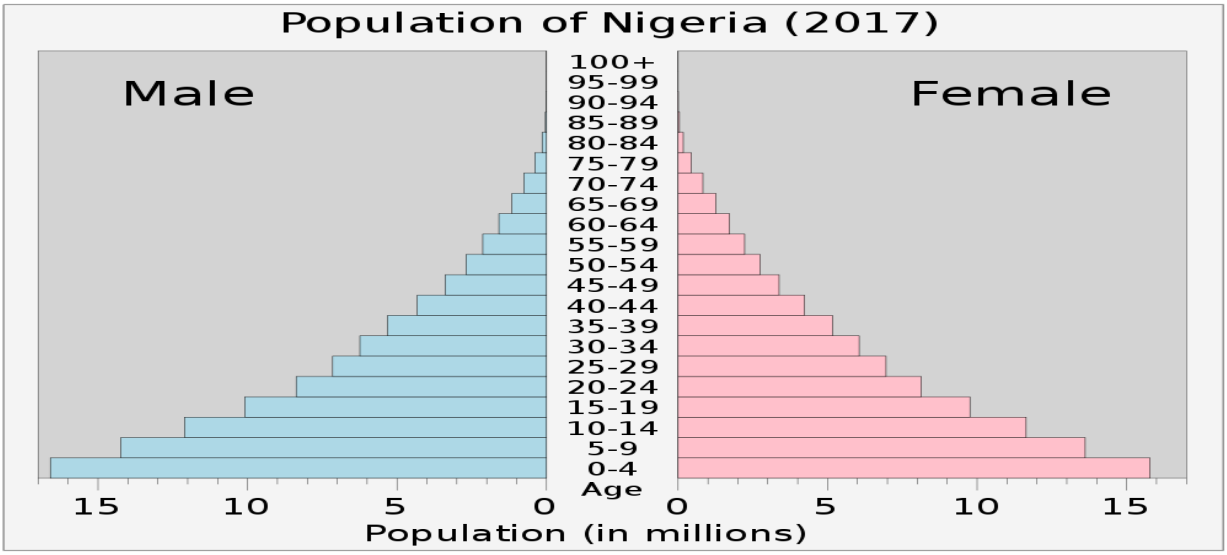

Figure 1: Population of Nigeria (2017)

Literacy

About 56% of Nigerian women do not have access to at least one of radio, television, and newspaper. Health workers are the other source of information on contraceptives (7).

1.2.2 Health system

Nigeria is constitutionally made up of 36 States and one Federal Capital Territory (FCT) (13). Each state has an executive governor with significant political authority and influence on budget, controlling 50% of all government revenue. Implementation of Family planning programs as well as many other health policies, therefore, depends significantly on state support (14). The states are further divided into Local Government Areas (LGAs) totaling 774, each run by a local government council. The local government areas manage and implement PHCs with support from host community groups and ward development committees. Consequently, significant disparities exist in funding, staffing, and stocking of primary health cares across the country.

The federal government produce the reproductive health policies and guidelines for the health system which are implemented in the states by the respective state ministries of health (SMoH). Each state also has a family planning coordinator who helps to facilitate commodity ordering and transportation as well as advocacy.

1.2.3 Sexual and reproductive health and rights

Maternal mortality is a significant index in assessing a country's health systems as well as development programs for women globally (15). In Nigeria, the maternal mortality rate is 576 per 100,000 live births. This is the fourth highest in the world, and far behind the sustainable development goals (SDG) target of 70 per 100,000 live birth. The total fertility rates are also high (4.7 and 6.2 in urban and rural settings respectively) (11).

Nigeria's young population also have adolescent fertility rate of 105 children per 1000 women age 15-19 (16), as 19% of women in this age group are either pregnant for the first time or have given birth to a child already (7). This varies across sociodemographic strata and highest in rural areas, Northwest region, lowest wealth quintile and among girls with no education (see figure 2).

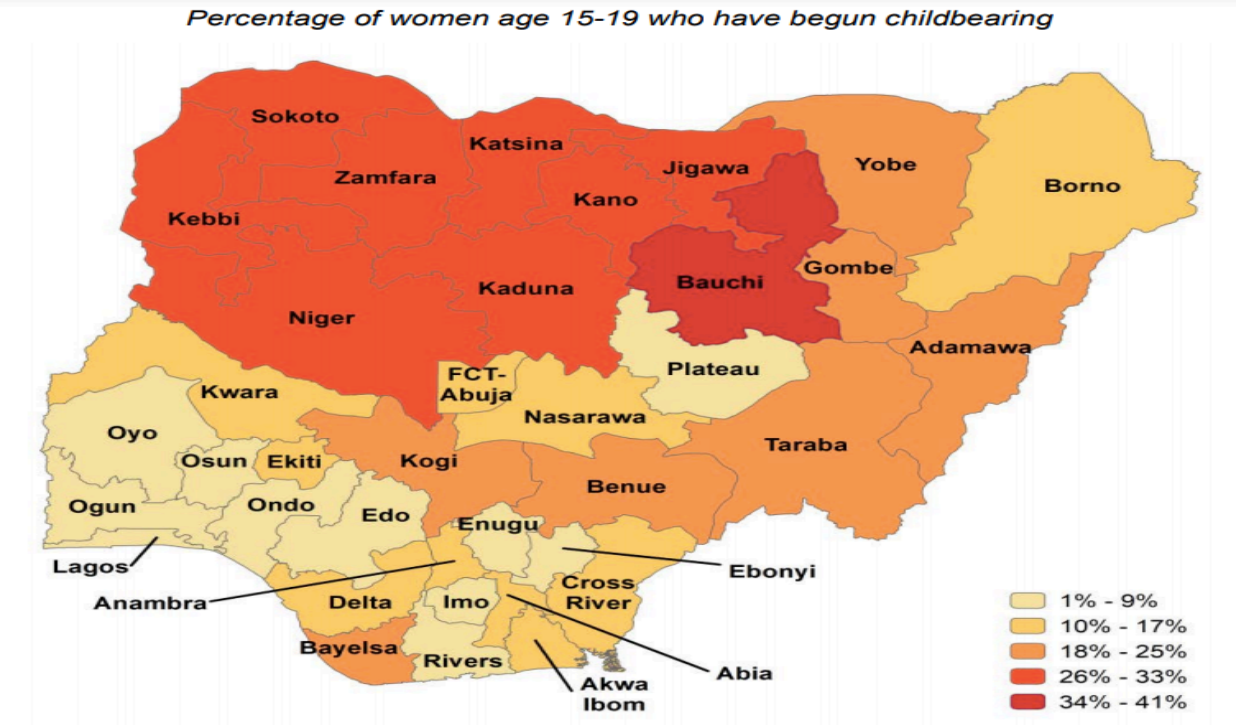

Figure 2: Teenage Pregnancy (7)

Harmful practices such as child marriage are prevalent in Nigeria, with 43 per cent of girls married before the age of 18 (17). Once girls in Nigeria are married, only 1.2 per cent of those aged 15 to 19 have their contraception needs met, leading to high levels of early and teenage pregnancy (18).

Family planning in Nigeria

Family planning (FP) situation in Nigeria can be analyzed across five components such as service delivery, supplies and commodities, demand generation and behavioral change communication; regulation and policy; and financing.

- **Family planning service delivery.**

Family planning services in Nigeria are provided by both public and private sectors (54% and 41% respectively) (7). However, this role differs by the contraceptive method. Female sterilization, as well as long-acting reversible contraceptives (LARCs) such as intrauterine devices (IUDs), implants, and injectables are predominantly provided by the public sector. On the other hand, male condoms, emergency contraception, and pills are predominantly provided by the private sector (19,20).

Available modern contraception methods in Nigeria include oral contraceptive pills (OCPs) , injectables, IUDs, implants, male and female condoms, lactational amenorrhea

(LAM), male and female sterilization (21,22). About 5% of current users are on traditional methods(11,21). Implants and injectables contraception are the modern methods most commonly used by currently married women, while male condom is the modern method preferred among sexually active unmarried women (7,23)

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Nigeria DHS 2018

Source	Female sterili-sation	IUD	Injectables	Implants	Pill	Male condom	Emer-gency contra-ception	Total
Public sector	**74.5**	**79.1**	**74.4**	**92.8**	**31.4**	**5.4**	**0.0**	**54.0**
Government hospital	70.6	40.9	25.9	39.4	12.0	1.8	0.0	22.4
Government health centre	3.9	35.2	45.5	47.4	16.8	2.6	0.0	28.5
Family planning clinic	0.0	2.5	2.4	3.1	2.1	0.3	0.0	1.9
Public mobile clinic	0.0	0.0	0.2	0.8	0.3	0.2	0.0	0.3
Public fieldworker	0.0	0.5	0.4	2.1	0.4	0.5	0.0	0.8
Private sector	**25.5**	**20.1**	**23.1**	**6.9**	**66.5**	**81.4**	**80.2**	**40.8**
Private hospital/clinic	21.5	16.9	7.1	5.0	3.2	1.2	0.0	5.2
Private pharmacy	0.0	0.0	3.8	0.0	28.1	29.0	19.7	12.4
Private chemist/PMS store	1.3	0.8	9.0	0.4	33.9	50.9	60.5	21.5
Private doctor	1.1	1.8	1.8	0.6	0.2	0.0	0.0	0.8
Private mobile clinic	0.0	0.3	0.6	0.4	1.0	0.1	0.0	0.4
Private fieldworker	1.5	0.4	0.6	0.1	0.0	0.0	0.0	0.3
Other private medical sector	0.0	0.0	0.2	0.4	0.0	0.1	0.0	0.2
Other source	**0.0**	**0.8**	**2.0**	**0.3**	**2.0**	**10.9**	**19.8**	**4.4**
Shop	0.0	0.0	0.2	0.0	0.8	4.9	16.8	1.9
Church	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.1
Friend/relative	0.0	0.2	1.7	0.0	1.2	5.8	3.0	2.3
NGO	0.0	0.4	0.0	0.3	0.0	0.2	0.0	0.2
Other	0.0	0.0	0.4	0.0	0.0	2.2	0.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	73	247	1,007	1,051	484	1,046	104	4,050

Note: Total includes other modern methods not listed separately but excludes the lactational amenorrhoea method (LAM).
NGO = Nongovernmental organisation

Figure 3: Sources of modern contraception method (7)

- **Supplies and commodities**

Family planning commodities forecasting in Nigeria is done through John Snow Inc. (JSI) while the procurement is through UNFPA with funds from the FGON and development partners. Distribution from the central contraceptive warehouse in Lagos to the states is done by the respective states with the assistance from UNFPA and the implementing partners who also coordinate the logistics required to distribute FP commodities from the state to local government areas (LGA) and then to the service delivery points (SDPs) within the states (14).

- **Demand generation and behavior change communications**

There is Low demand of FP commodities and low knowledge of MC especially LARCs across Nigeria. About 84.6 percent of married women have heard about one or more methods, but this average does not reflect good knowledge of the different types of contraceptive methods. Some of the common reasons often sited for low motivation to use modern contraception include lack of knowledge, fear of side effect, and religion.

- **Regulation and policy**

Nigeria adopted free commodity policy in April 2011 to make FP commodities at the public facilities free of charges to all women. More recently, adoption of task shifting policy that permit community health extension workers (CHEWs) to provide injectable contraception, and the commitment to increase domestic funding for family planning at the 2012 London FP Summit are all enabling policy environment for family planning (14).

- **Financing for family planning**

Family planning financing comes from all three levels of government in Nigeria but predominantly from external donor sources.

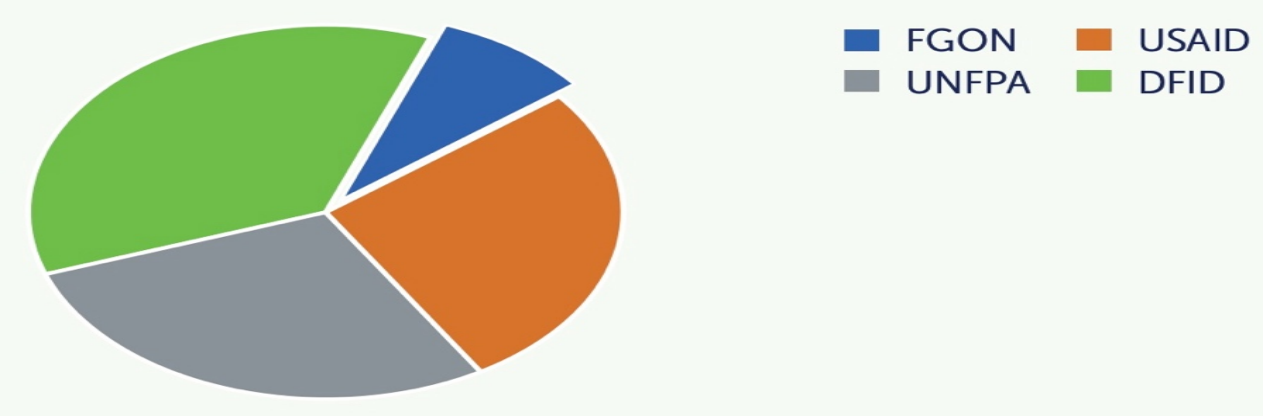

Figure 4: Funders for Family Planning Commodities (2016)(24).

The federal government contributes funds for contraception procurement annually. However, the responsibility of FP service provision (excluding commodity costs) ultimately falls to the states. To date, out of the 36 states, only Lagos has officially disbursed budget monies directly for FP services. This means that for many States, the funds required to transport commodities and consumables to service delivery points, SDPs, are not available. Those States lacking donor projects are severely limited in providing FP services and commodities through the public health system (24,25). While local government areas are responsible for managing primary health care, they depend

on budgets released by the state, no local government areas have received released funds dedicated to family planning (14).

At the Abuja Declaration in 2001, Nigeria committed to allocating 15% of its budget on health but has not implemented that yet (26). Conversely, there have been significant decrease in health budget, allocation and actual health expenditure each year, with consequent insufficient family planning funds and high donor dependency (25,27).

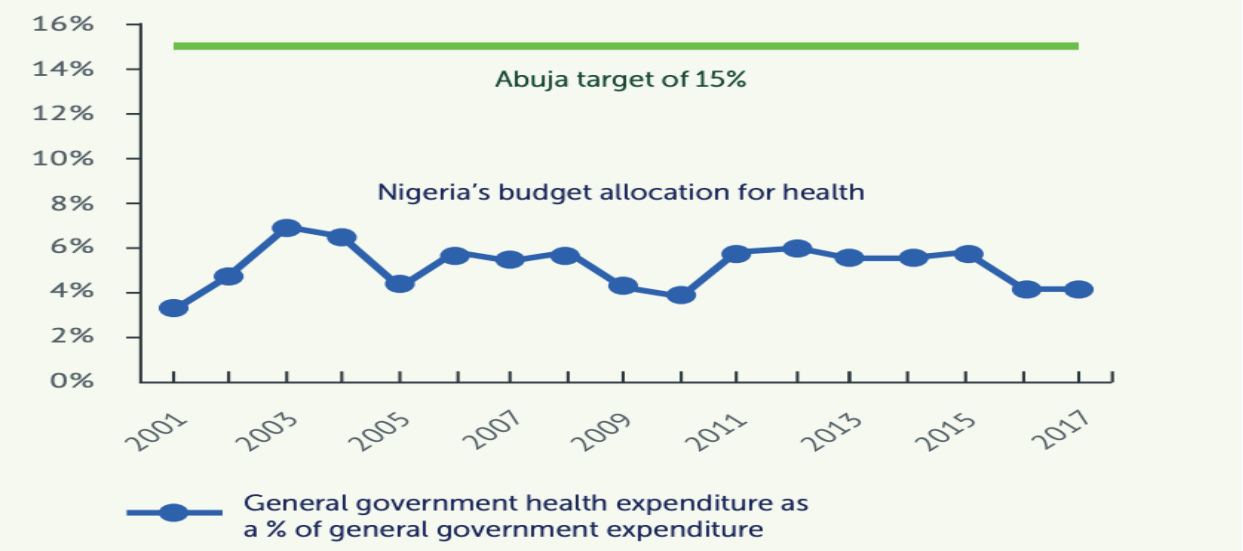

Figure 5: Percent of the government allocation to health (24)

In 2019, for example, National FP allocation was reduced by 90% (28,29) with no counterpart fund allocated in the budget line. Worse still, the allocation for family planning services was further reduced by approximately 40% in 2019 unlike the release of $3.313 million by the federal government in 2018 as a counterpart funding to UNFPA for FP commodity procurement. This donor dependency is not a sustainable for the much-needed strong family planning program in Nigeria (25,27).

Chapter 2

1. Problems statement, justification and objectives

2.1 Problem statement

About 35% of women of reproductive age in Nigeria (15.7 of 45 million) want to avoid a pregnancy, but only 14% of them (6.2 million) are using modern contraceptives. For the 9.5 million whose need for contraceptives are not met, 2.5 million use traditional methods which are ineffective, while 7.0 million use no contraceptives of any type (7,30).

Consequently, 24% of pregnancies in Nigeria are unintended, and more than half of those unintended pregnancy end in abortion. Partly because of the restrictive abortion law in Nigeria, women resort to risky clandestine abortion services (29,30).

In 2018, 1.3 million abortion cases were recorded, and about 85% of them were unsafe (31). Such unsafe abortion is one of the leading direct causes of maternal deaths. Maternal and infant mortality in Nigeria is among the highest in the world (3). Nigeria is about 2% of the global population, but nearly 20% of all global maternal deaths occur in the country. Over 600,000 maternal deaths and about 900,000 maternal near-miss cases occurred between 2005 and 2015 in Nigeria (32,33). The estimated maternal mortality ratio (MMR) was above 800 per 100,000 live births, and about 58,000 maternal deaths in 2015: In contrast, the 46 most developed counties had 1,700 total maternal deaths (MMR 12 per 100,000 live births) in 2015 (32).

Beside the high rate of unintended pregnancies, nonuse of modern contraceptives also results in a high fertility rate. The total fertility rate in Nigeria is 5.3 children per woman (11). Large family size in the background of low household income results in childhood poverty, poor child survival and low financial empowerment of women as many of the women are not able to participate in paid labor because of prolong time spent by them in having and caring for the large family.

Given that Nigeria is a relatively young population (median age of 18.3) with about half of the female population (45 million) within reproductive age and many more arriving that age over the next decade, serving this huge cohort of young women will be an additional challenge requiring urgent plans (12). With the current low contraceptive prevalence, population explosion will cause a loss of demographic dividend and result in high dependency ratio and more impoverishment. This has wide socioeconomic implications including strain on economy and social services, slow national development and increased poverty and crime rates. Strain on the environment will also results as resources consumption (water and land) and waste generation (greenhouse gas, climate change) increases (34).

However, use of modern contraceptives to limit the number and spacing of childbirth is linked to lower rates of maternal and child mortality, women empowerment and demographic dividend. It is also a good economic investment because the cost of caring for an unintended pregnancy is far higher than the cost of using modern contraceptive to prevent the pregnancy in the first place: with each additional dollar invested on modern contraceptives in Nigeria, about $1.24 is saved from the cost of Maternal and Child Healthcare (31).

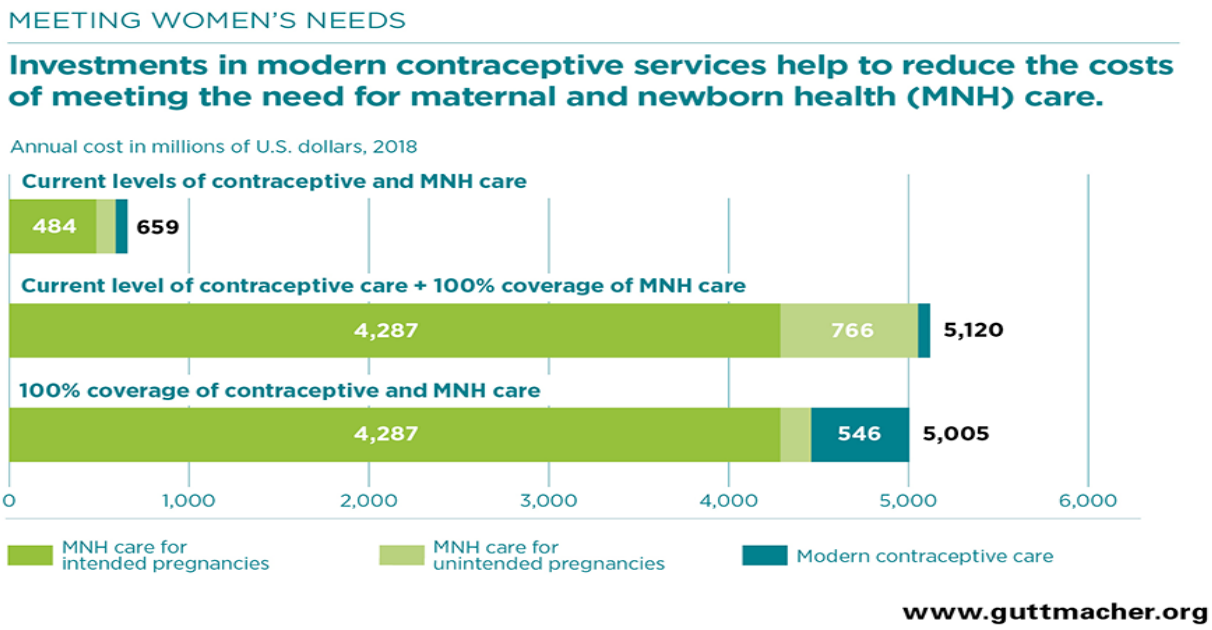

Figure 6: Investment in modern contraceptive services (31)

Additionally, condom, a type of modern contraceptives, also helps in the prevention of sexually transmitted infections, making it a key element in sexual and reproductive health.

Despite various studies in the past on factors driving uptake of modern contraception and several family planning programs, the progress in modern contraceptives uptake in Nigeria has lagged behind the regional average and failed to deliver results consistent with the investment. Another worrying part of this slow progress is that Nigeria has depended largely on foreign aids to fund FP programs while the government has yet to live up to its 2012 London FP summit commitment and Abuja declaration (26). This lack of political will in the face of ailing health systems in Nigeria portends a gloomy future for FP programs as the foreign aids are not guaranteed.

This thesis analyzes the current factors affecting access to modern contraceptives in Nigeria from both the supply and the demand perspective. The lessons learnt from

successful family planning programs in Sub-Saharan Africa are used to recommend strategies to improve the access modern contraceptives in Nigeria.

2.2 Justification

Despite efforts and various family planning (FP) programs, use of modern contraceptive in Nigeria lags behind many other African countries, suggesting the existence of gaps in the critical knowledge of main factors peculiar to Nigeria that may be responsible for the low uptake. This thesis aimed to analyze the relevant literatures to identify the main factors that are currently driving access to modern contraception from various studies on contraception or FP in Nigeria published over the last ten years and draw useful lessons from Sub-Saharan Africa countries with successful program, in order to inform the design of more currently relevant and country-level context-specific interventions to improve access modern contraceptives.

2.3 Objective

- General objective:

To analyze the factors affecting access to modern contraceptives in Nigeria in order to make evidence informed recommendation to improve modern contraceptive use.

- Specific objectives:

1. To analyze factors affecting supply of modern contraceptives
2. To analyze factors affecting demand for modern contraceptives
3. To identify strategies that have been successful in other Sub-Saharan African countries to improve access to modern contraception
4. To make recommendations on ways to improve contraceptive prevalence in Nigeria

2. Methodology

3.1 Study design

This study employed a literature review to analyze factors that affect the use of contraceptives in Nigeria using the Jean Fredric Levesque, 2013 conceptual framework of access to health care services. In this framework, five dimensions of access to modern contraceptives were conceptualized, viz: Approachability, Acceptability, Availability, Affordability and Appropriateness of the contraceptive services. These five dimensions shape the supply of modern contraceptive services. Correspondingly, the demand for modern contraceptives is shaped by five corollary abilities of the population that interact with the supply dimensions to generate access to modern contraceptives: These five corresponding dimensions of abilities include Ability to perceive contraceptive needs; Ability to seek contraceptive services; Ability to reach the services; Ability to pay for the services and Ability to engage with the services in order to fulfill the need.

3.2 Search strategy

The literature search was done using mesh-terms comprising “family planning service” OR “family planning” OR “contraception” AND “Nigeria”. Data bases such as PubMed, google scholar were used, as well as search engines such as google. Additional key words for the search were derived directly from the Jean Fredric Lévesque 2013, conceptual framework. Snowballing method was also used to obtain other relevant literature from references of resources found. Literature was selected based on the condition of having been published in the last ten years; and with their titles and objectives being relevant to the objectives of this study. Resources published in English language were selected. To also provide some context of lessons that could be learned and possibly adapted to the Nigerian system, studies done on other African countries which highlighted successful FP programs were used, however, studies about countries outside Africa were excluded in the analysis.

3.3 Conceptual framework

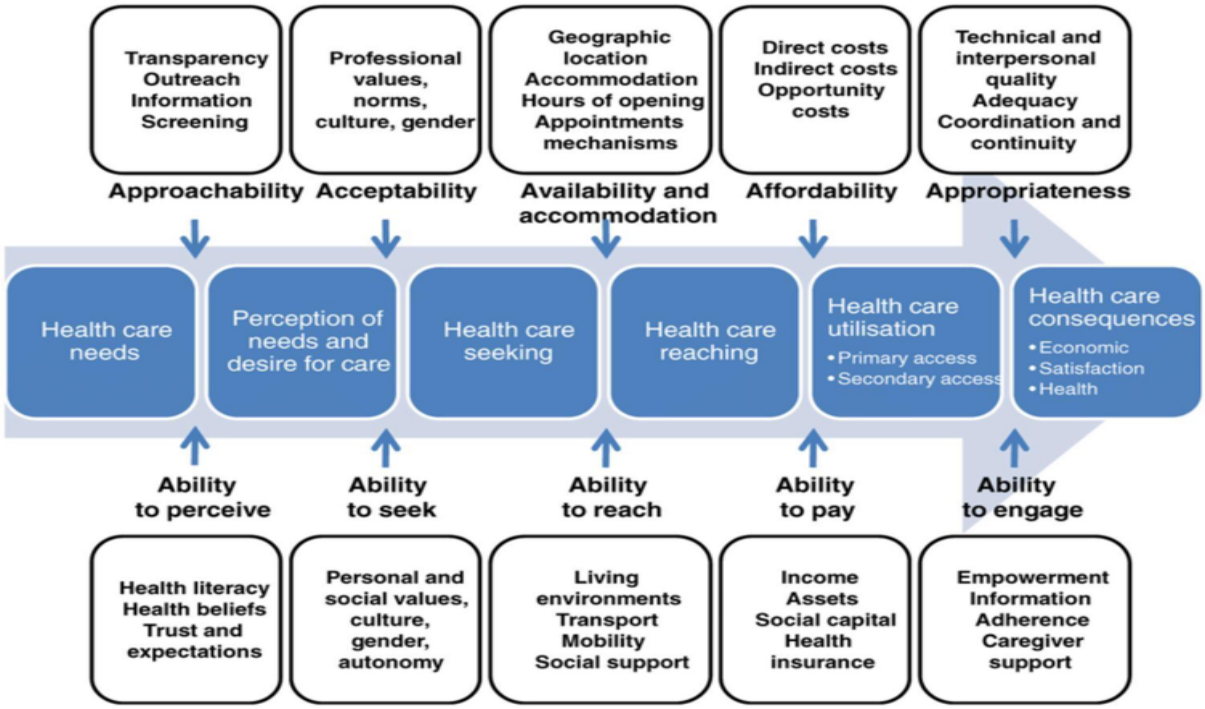

Figure 7:Jean Fredric Levesque 2013, Conceptual Framework (35)

Health care needs, when adequately met, produce a desired health care outcome which could be economic, client satisfaction or improved state of health (36). Between the identified needs and the desired consequences, the users must first perceive the need for contraception, seek the contraceptive method that meets her need, then reach the contraception and finally access the products and services for utilization. Only then can the beneficial consequence of contraception be achieved. Each of those four steps are affected by factors related to supply and demands of the contraceptive information, services and products. This is well illustrated in the Jean Fredric Lévesque, 2013, conceptual framework (see above) which is used to analyze those supply and demand factors. The ecological conceptual framework by Dahlgren and Whitehead (1991) was also considered because it illustrates the three broad categories of factors such as individual, community and system factors that determine access to modern contraceptives. However, the Dahlgren and Whitehead model is more complex to analyze. On the other hand, the Jean Fredric Lévesque framework was preferred because it helps analyze access to modern contraceptives in the logical sequence that it occurs starting from recognizing the need all through to meeting the needs; this then makes it easier to carry out an in-depth analysis of these factors. It also shows the interplay of system factors that constitute the supply side and the corresponding population abilities that constitute the demand side of the access.

4. Results

This chapter presents the results of this thesis in three segments each addressing the first, second and third objectives of the thesis respectively. The first segment describes factors affecting the supply of modern contraceptives in Nigeria, while the second describes the corresponding demand factors. The third segment describes the successful family planning interventions in Sub-Saharan Africa.

4.1 Factors affecting the supply of modern contraceptives in Nigeria

This section of the result analyses factors affecting supply of modern contraceptive in Nigeria. These include organizational and or system level determinants of access to contraceptive services and they are grouped into five subheadings according to the supply side of the Jean Fredric Levesque 2013, Conceptual Framework: Approachability, acceptability, availability and accommodation, affordability, and appropriateness.

4.1.1 Approachability

Contraceptive services are approachable if, through effective communication and information strategies, relevant users are made aware that the services that satisfy their needs exist and within their reach, considering their context and health literacy (36).

- Information strategy

Media (Radio/TV) is the main source of information on contraceptives (37.6%), followed by relatives/friends (31.4%) and then health workers (37,38). Exposure to mass media messages about modern contraceptives (MC) is found to be a significant predictor of desire for fewer children, the intention to use contraceptives and actual use of modern contraceptives (39,40). Also, effective communication about family planning influences the perception and societal norms on modern contraceptives (21). Study after a 6-year comprehensive family planning program (2009–2015) using various means of communication to encourage dialogue about family planning, increase social approval, and improve accurate knowledge about contraceptives. MC use in project cities increased substantially by an average of 8.4 percentage points among the poorest wealth quintiles. In the study areas, use of modern contraceptive and the intention to

use in the future (within 12 months of the study) both increased significantly: 9.9 and 7.5-10.2 percentage point respectively being attributable to the project (41).

Provision of adequate information about different contraceptive methods is required for women to make well-informed decisions about their contraceptive needs and the method appropriate for them (42). While adequate information strongly influences attitudes toward family planning and enhanced use of MC (15,43), ineffective conveyance of relevant information to clients by providers create knowledge gaps which eventually cause poor contraceptive use in Nigeria (44). Additionally, the quality of the information provided depends on the informants' knowledge depth, ability to communicate effectively and personal biases (45,46) (providers' bias is further elaborated in the next segment).

Hospital-based dissemination of family planning information mainly reaches the married women who are the group that predominantly go to health facilities for antenatal clinic, post-natal clinic, immunization clinic and family planning clinics (7). Most adolescents, unmarried women, men and boys do not use those clinics and therefore are not reached by the facility-based modern contraceptives information dissemination. They groups to resort to getting their modern contraceptive information from family and friends to fill the information gap.

4.1.2 Acceptability

- Professional values, norms and culture

Unprofessional attitude, poor communication skills and bias on the part of the providers affect the quality of information and services made available to contraceptive users in Nigeria. Minimum age bias, where providers indicate they will not offer a method to a client who is not up to a certain age (usually 15 years or older) was found to be the most common provider bias (47). For example, the attitude of many health care providers to use of contraceptive by the unmarried adolescents remain unfriendly. A study shows more than half (57.5%) of the healthcare providers in randomly selected facilities in southwest Nigeria believed that providing contraceptives to unmarried adolescents promotes sexual promiscuity among them. For 42.7% of the respondents their unfriendly attitude was influenced by the Nigerian culture which discourages premarital sex. Up to 51.7% believed instead of providing the adolescents with contraceptives they should rather be encouraged to abstain from sex until they are married (48,49).

Apart from minimum age bias, there is also marital status bias where provider is less willing to offer contraceptive services to women that are not married. Some providers also showed bias in the methods they believe are appropriate for different clients (50). In in-depth interviews, one study found that providers out of concerns about client's

fertility commonly recommended condoms and the pills for unmarried clients and longer-acting methods for married clients. Those providers typically justify this method appropriateness bias by claiming to be protecting unmarried women from damaging their fertility (51).

4.1.3 Availability and Accommodation

Availability of family planning services influences the ability of women to access and use contraceptive (52). A service is considered available and accommodating if the service delivery point and the skilled service providers are present and can be timely reached by the target users Also, an available service has sufficient services and resources to meet the volume and needs of the consumers and communities served.

- Geographical location

Place of residence typically determines access to services and information about health and other aspects of life. About 54% of Nigerians live in rural areas some of which are hard to reach and with less coverage for reproductive health services (7). In most rural and remote regions of Nigeria, health facilities are scarce, too expensive to reach, or lack an adequate number of skilled health workers, equipment, or mix of modern contraceptives methods (53,54). In some other areas, a product may only be available by going through an arduous process at a government healthcare facility. Depending on the region, it may be unsafe, or time-consuming for a woman to travel to the clinic especially in crisis periods or natural disasters like flooding (55). Stock out of modern contraceptives products is also a major concern in Nigeria (53,56).

- Accommodation (Adequacy)

An adequate service is well organized to accommodate clients, and clients are able to use the services. Considerations of adequacy include hours of operation (after-hour service), referral or appointment systems, and facility. The proximity of the drug stores and the availability of sales for longer daily opening hours make them easy to walk into and access modern contraceptives by women and girls. This can partly explain why women and girls use private health centres and drug stores as their main source of modern contraceptives. There is also the added advantage of clients' anonymity in the chemist shops where providers are not as curious and the users not having to be burdened with intrusive counselling. However, despite how accommodating the private sector outlets are, 46% of them do not stock modern contraceptive, and most of them do not stock sufficient mix of contraceptive methods: only 5% stocked up to three different methods (52,57,58) Where there is no guaranteed availability of preferred

methods, women are at higher risk of unintended pregnancy due to lack of consistent use or continuation of a method (59).

4.1.4 Affordability

- Direct costs

Modern contraceptives are officially free of charges in the Nigeria public sector (14). However, in the private sectors, users have to pay for them. High prices of modern contraceptives in Nigeria create barriers to consumer access and choices (58). About 25.2% of the respondents in a qualitative study across Nigeria have paid for at least one method of modern contraceptives within the six months before the survey (60). Male condoms were the most common modern contraceptives people paid for, followed by oral contraceptive pills.

However, how much the users pay for the contraceptives in the private sector vary according to the methods procured and the type of supplier. For example, women have to pay 25-166% higher for each dose of oral contraceptive and emergency contraceptive pills in the pharmacies compared to the drug shops. Much more, the average prices of a dose of injectables is highest in the private clinics, where clients have to pay for drug administration service fees in addition to the cost of the drug (60).

In estimating the cost-effectiveness of modern contraception methods, it is important to remember that the family planning is usually required for a long term. Though condom and oral contraceptive pills (OCP) may be cheaper per unit, their cumulative unit cost makes them more expensive over the long-term use required in family planning compared to the long-acting reversible contraceptives (LARCs) such as intrauterine devices (IUDs) and injectable contraceptives. This implies that LARCs are more cost-effective, and highlights the need to overcome the high initial costs (58).

- Indirect costs and opportunity costs

Though the Federal Executive Council of Nigeria proclaimed contraceptives free of all charges, on the field, not all healthcare workers are fully embracing it. Some collect free commodities and sell to clients, saying that they have used their money to print consultation cards (29).

Even where there are no charges at the service delivery points, cost of transport to the closest family planning service delivery points constitute a significant indirect cost to the Nigerian users. A study in Nigeria shows the negative association between transport cost and utilization of family planning: as the transport cost increased, the number of those who use family planning decreases (60). Where the next available service

delivery points are remote the time spent in the process arrive and wait to procure modern contraceptives comes at the expense of other economic or social activities that clients have to forego, and the money spent on modern contraceptives is at the expense of other contending needs of the users. This can be a barrier to accessing modern contraceptives among people of low socioeconomic status.

4.1.5 Appropriateness

The ultimate goal of access to modern contraceptives is to satisfy the contraceptive needs. Appropriateness denotes the march between services and needs of the clients, how timely it is done and how much care is taken to assess the needs of the clients and determine the treatment that is most suitable for them. Appropriateness is largely dependent on technical and interpersonal adequacy of the family planning service providers.

- Technical and interpersonal quality, Adequacy

Many family planning service providers in Nigeria do not have adequate training to determine, or advise on, the most appropriate method for their clients. Many patent medicines stores, and pharmacies do not have personnel with the technical skills required to deliver LARC such as IUDs and implants, and many users do not have confidence in the expertise of community health workers. Consequently, in such places, clients tend to prefer the use of short acting methods such as condoms and pills which require less input from the providers. Women who also require permanent methods like bilateral tubal ligations cannot have their needs met outside the hospital settings and these affect their satisfaction and consequently continuation (46,61). Additionally, not every facility provides services that are suitable for adolescents. A Performance Monitoring and Accountability 2020 (PMA2020) survey show that women of reproductive age with unmet need for contraception in Nigeria are more likely to use modern contraceptive if health facilities where they live provide reproductive health care to adolescent (62). Also, the chance of using modern contraceptives is higher among women visited by a health-worker and through the community-based distribution of FP product (63).

4.2 Factors affecting Demand for modern contraceptives in Nigeria

These are the patient or population abilities to access contraceptive services. These factors would be grouped into five subheadings according to the demand side of the Jean Fredric Levesque 2013, Conceptual Framework: Ability to perceive, ability to seek, ability to reach, ability to pay, and the ability to engage

4.2.1 Ability to Perceive

Ability to perceive describes the population ability to identify their contraceptive needs. This depends on the health literacy and contraceptive beliefs.

- Health literacy

Health literacy is “the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” (64,65).

Only about half of Nigeria women above 15 years are literate (66). There is a low knowledge of contraception, especially the long-acting reversible contraceptives (LARCs), across Nigeria (14). The Nigeria 2018 national demographic and health survey (NDHS) showed that though about 84.6% of married women are aware of one or more method, knowledge of method type by these women differ significantly according to their location, age and other socioeconomic factors. For instance, as higher as 74.1% of the women in Nigeria are not aware of implants. This shows a significantly poor rate of knowledge relative to other countries (7). Similarly, many surveys in Nigeria show there is a high awareness (96.6%), but low in-depth knowledge of contraceptive: as much as 87.5% had poor knowledge about contraceptives, and this poor knowledge is more in the North Nigeria, as is contraceptive prevalence (57).

The mass media are among the most important sources of information and exposure to new ideas, alternative role models, and non-kin-based power structures. The media can play an even greater role in countries where women have low or no education and restricted freedom of movement (67). The exposure of women to a single source of media, especially television, is a significant predictor of attitudes, beliefs, and actions (68,69). However, about 56% of Nigeria women above 15yrs old no access to newspaper, television or radio (66).

The low literacy level and poor access to mass media make the women more susceptible to misinformation, myth and unsubstantiated false beliefs about modern contraceptive, thereby negatively affecting their ability to perceive their need for contraception. However, where adequate information about various types of modern contraceptive methods are provided and the user's health literacy level is high, uptake of modern contraception is correspondingly better (57,70).

- Beliefs, myth, misconceptions and rumors

The most common reason given for non-use of modern contraceptives in Nigeria is the fear of side effects (71,72). However, this is usually not corroborated by the experience of those who use modern contraceptives. Most of the users are satisfied with the methods and have no side effects for which they want to discontinue use, indicating the need for more public education and provision of information to dispel the misconception and allay the fear around modern contraceptives.

In Nigeria, family planning myths are prevalent at both individual and community levels. This is driven by rumours or misconceptions that the use of modern contraception poses immediate or eventual health threat to women and capable of harming the womb as well (72). Out of 8 selected myths, Nigerian women are found to believe 2.7 of them on the average, and this has a negative correlation with contraceptive use: At the individual level, the more the woman believe in myth, the less likely she would use the modern contraceptive (57,70).

4.2.2 Ability to Seek

Ability to seek modern contraceptive services depends on factors that drives expressing the intention to obtain healthcare.

- Culture, social and personal values

Intention to use health care is affected by traditions, ethno-religious factors and women's age and parity. The use of modern contraceptives is generally acceptable to 87% of the respondents in both urban and rural areas study in six states across Nigeria (23). However, individual factors such as age and the number and the sex of the children a woman already has, affect the use of contraceptives. For example, in some societies where preference for sons is a strong tradition, having a female child in the previous pregnancies is a motivating factor to have another pregnancy sooner, with the hope that the next pregnancy will produce a son. This is a common value in a society that is predominantly patriarchal like Nigeria and it constitutes a significant limitation to the intention to use contraceptives. Similarly, families who have not achieved their desired parity or number of children tend not to seek contraceptives (43). Conversely, extremes of reproductive age and extremes of parity are positively associated with use of contraception. Adolescents, young unmarried women and older women who have completed their family size and have no desire for more children express intention and seek to use contraceptive (15). The higher the women’s education and socioeconomic status, the more likely they will use modern contraceptives (73).

- Religion/ethnicity

Considerable disparity exists in the uptake of modern contraceptives across ethnoreligious boundaries in Nigeria. For example, women of Yoruba ethnic extraction have the highest expressed intention to and use of modern contraceptive compared to their Hausa/Fulani/Kanuri/Seriberi (HFKS) counterparts who have the lowest use of contraceptives in Nigeria. Similarly, Christian women (especially non-Catholic Christians) seek and use modern contraceptive more than the Muslim women in Nigeria (74,75). A study in the North-East State of Borno showed that married Muslim men have mainly negative attitude to family planning. Though among differs groups in the state, factors such as being a young husband, having western education, and being of Babur/Bura ethnic group appeared to have positive influence on the attitude to family planning. On the other hand, factors such as low literacy level (92%), being resident in the rural area (93%), and religious factor (96%), were found to be among the main drivers of negative attitude to family planning. However, among all the sub-groups in this study, socioeconomic insecurity was described as the “most outstanding factor” responsible for the negative attitude (76).

- Gender

Gender inequality is another factor that affects the ability of women to seek contraceptive services. Women’s individual and community levels self-efficacy is associated with increased utilization of modern contraceptives. For example, adoption and continued use of modern contraception is increases in an environment of gender equity in family planning decision-making while the likelihood of contraceptive discontinuation decreases (77,78). Where male partners jointly make health-related decisions or allows the decisions to be made primally by the women, the use of contraceptives is higher. Conversely, in a setting where women have less earning power, less self-efficacy, (78) and where men believe contraceptives enable promiscuity by their female partners, use of contraceptives is significantly low (73).

- Autonomy

Sexual autonomy plays an important role in women’s use of modern contraceptive methods independent of education and a number of other factors related to women’s status.

Data from two Demographic and Health Surveys (DHS), 2008 and 2013, shows observed prevalence for use of modern contraception was 2.8 and 2.6 times higher among women who had high sexual autonomy in 2008 and 2013, respectively. Sexual

autonomy when simultaneously promoted alongside increasing educational opportunities, enhances women's ability to use modern contraception (79–81).

4.2.3 Ability to Reach

- Living environment

About half of Nigeria population live in rural locations, some of which are remote and hard to reach. Many others live in urban slums (82). These places have limited access to health facilities or have facilities which lack skilled family planning service providers and necessary equipment or medical supplies. However, many women who need modern contraceptives live in those locations. In the most rural and remote regions of Nigeria, reaching modern contraceptive is not only too expensive but the options of modern contraceptive method mix are limited. Users can experience great difficulty trying to access short term and emergency contraception, long-acting reversible contraceptives (LARCs) and permanent methods, which are not often available. For some other areas, a product may only be available by going through an arduous process at a government healthcare facility (54,83).

Consequently, women in rural areas have more limited access to modern contraceptives than those living in urban areas where health services including family planning programs and interventions are concentrated (83)

- Social support

Similarly, social environments such as spouses, friends, families and neighbors also influence women uptake of modern contraceptives in Nigeria. For example, in an environment where having a large family size is a social norm, women who live in such environment tend to prefer large family size as well. (52,84). And a negative environment created by this social environment reduces modern contraceptive use (23,84).

- Mobility

Though literature was found in the search for how mobility and physical disability affect ability to reach contraception in Nigeria, study in the region suggest that physically challenged women face considerable barrier to accessing sexual and reproductive health services generally. Considering that contraceptives are usually a private issue for most people including those with physical disabilities it is likely that they may have problem with being able to reach modern contraceptives as a result of lack of confidentiality or anonymity especially if they have to be helped to move to service

delivery point or helped with communication and much so for the adolescent girls (85,86).

4.2.4 Ability to Pay

Ability to pay means the capacity to generate resources to procure contraceptive services without experiencing hardship or inability to meet other necessities.

- Income, Assets, Social capital and Health insurance

Inability to pay can deter the poor from using contraceptives and wealth is a positive predictor of modern contraceptives use. In 2002, as much as 77% of the Sub-Saharan Africa population were unable to pay for the price of the family planning commodities (87). In Lagos, South-West Nigeria, a hospital-based retrospective study between 2011 and 2016 showed that economic recession correlated with reduced contraceptive usage (88). Women in the richest wealth quintile and those in urban residence have higher uptake of modern contraceptives and uptake is poorest in the North-West Nigeria (89).

The socioeconomic status of Nigeria women influences their choice of where to source for contraceptives. Living in rural areas and economically deprived neighbourhoods are community level determinants of women's preferences for contraceptives sources, in addition to their preferred methods of contraception (90). The most commonly bought contraceptives are condoms, oral contraceptive pills (OCP) and emergency contraceptive pills (ECP) since they have cheaper per unit cost (91).

Considering that only 3% of Nigerian have access to social health insurance and given the current and rising number of people living in poverty in Nigeria, consumers will find it increasingly difficult to pay for family planning services (92,93). The poor are very sensitive to price changes and the results could be a decline in contraceptive use (77% of the Sub-Saharan Africa population in 2002 were unable to pay for the price of the commodities) (87).

4.2.5 Ability to engage

Ability to engage in healthcare relates to the participation and involvement of the client in treatment decisions and selection of suitable family planning products and services. This is strongly determined by capacity and motivation to participate in care and commit to its completion.

Provider and client education approaches improve client involvement in contraceptive decision-making and method choice. A study shows that most users trust in health professionals, hospitals, and governments to provide safe contraception in Nigeria. The

service providers are expected to conduct necessary test on their client to find out what method of contraception will best suit their body and producing no side effect. This mindset around contraceptive method choice can make it difficult for client to achieve satisfaction with service, since no such test exist to adequately predict which client will have what side effect (94).

4.3 Successful family planning interventions in Sub-Saharan Africa

Having lagged behind other regions in the world on family planning (FP) uptake, Sub-Saharan Africa recorded the greatest improvement among all regions of the world in FP effort indicators between 1982 and 1989, though from a low baseline (95). Despite this modest progress in the regional aggregate of FP indicators, the wide variation in contraceptive prevalence across the countries suggest that country-level contexts and policies may underlie these differences. This segment highlights some of the lessons learnt from successful family planning interventions in sub-Saharan Africa that can be applicable in Nigeria.

A separate literature search was done for articles on successful family planning or modern contraception intervention strategies in other sub-Saharan African countries. Pubmed was searched with mesh-terms including “family planning service” OR “family planning” OR “contraception” AND “sub-Saharan Africa”. The literature published in English language within the last ten years; and with title, objectives, findings and recommendations relevant to the objective of this study were included. Also included are relevant studies from google and google scholar search and through snowballing.

Below are the lessons learnt:

- **Policy-level support and corresponding programmatic action and financial backing from the government is needed to achieve successful national family planning programs**

Evidence from Morocco, Zimbabwe, Kenya, and Rwanda suggests that major strides in improving family planning uptake can be made if high-level policy commitment and political ownership exist (96).

Moroccan government started shifting from dependence on foreign aid and development partners by increasing the public spending on procurement of contraceptives. Modern contraceptives were made available to rural women and those of low socio-economic status who typically have the least access to services. This way, the rising demand for contraception was met, and consequently, the proportion of

married women using modern contraceptives increased to 50% in 2004 from 8% in 1980. This increase is very significant considering that 65% of Moroccan women of reproductive age live in rural area, and 50% lack formal education. This effort helped bridge the gap in access to family planning services between the country's poor and rich (97).

Similarly, one of the studies to identify reasons why certain countries in the region have made significant progress in family planning compared Kenya, where total fertility fell about 40 percent between 1980 and 2000, with neighboring Uganda, where fertility declined by 10 percent. It found that both economic development and a strong national family planning program were associated with increased uptake of modern contraception and corresponding lower fertility (98). This finding was also collaborated by another comparative analysis of Zimbabwe, where the fertility rate fell more rapidly than in Zambia, reveals that a strong family planning program in Zimbabwe backed by high level political commitment and institutional and financial stability were key ingredients of success (99).

Their success is a demonstration of the importance of a well-structured program that combined necessary political commitment with an adequate supply of product and creation of a conducive environment for the adoption of family planning is required in Sub-Saharan Africa (100,101).

- **Institutional arrangements and financial mechanisms**.

A unified institutional structure responsible for program implementation was found to be effective in Zimbabwe. Conversely, separation of those institutions resulted in a weaker family planning program in Zambia (102). The primary health care strategy adopted by the government integrated family planning as a component of a broader maternal and child health program. All service delivery units were instructed to provide family planning as an integral part of their maternal and child health services.

In Rwanda, performance-based financing mechanisms at various levels were found to be helpful. Performance contracts were established between the presidency and district mayors (Imihigo) that included an indicator on family planning. Performance incentives were also given to health workers to improve their motivation levels and to health centers for providing quality care. Universal health insurance schemes (mutuelles de santé) further enhanced the coverage of health care and encouraged community involvement in health provision (103).

- **Community-based distribution approach can help increase the availability and accessibility of contraceptive services especially in remote, rural or hard to reach areas**

Relatively better progress on family planning indicators in Eastern Africa compared to Western Africa has been attributed to stronger family planning efforts that ensured wider availability of modern contraceptives. Ethiopia recorded a rapid rise in the proportion of married women using modern contraceptives in 2000 from about 8% to 36% in 2016. This rise was largely attributable to a "Health Extension Worker program" (HEW) (104). The family planning program used about 34,000 trained HEWs in 17,000 new posts. Using the community-based distribution approach, the health extension workers took the services (including injection and implant insertion) to the remote villages where the people live.

In Nigeria, a 3-year family planning intervention was done in 10 LGA using community-based distribution (CBD) approach for modern contraceptives. Trained CBD agents provided information on reproductive health and family planning commodities and also make referrals to primary health centers within the communities. At the end of the intervention, the use of family planning commodities in the community increased from 28% to 49%, and an increase in the proportion of current contraceptive users from 16% at baseline to 37%. An average of 50% increase was also observed in primary health care patronage for modern contraceptives in the study areas (105). This study demonstrated that the CBD approach played a critical role in enhancing access to Reproductive Health and Family Planning information and services in the project communities.

A program led by the Johns Hopkins Center for Communication Programs (CCP) in six Nigerian cities helped improve modern contraceptives use in the program areas by ten percentage-point. Similar increase in the desire of women to have fewer children was also achieved. Their key instrument was demand creation and behavioral change communication(106). This is also collaborated by the lessons learnt from Rwanda and Zimbabwe success as shown in the results.

- **Task shifting policy**

Expanding the options and mix of contraceptive method available to women require sustained efforts at supplying wide range of FP commodities including the LARCs, a good distribution system that ensures the rural populations are well reached, and

creating demands by improving the quality of information and education communication to dispel misconception around contraception (107). Task shifting policy which allows training of community health workers to deliver injectables and implants can help increase both the geographical access as well as expand the contraceptive choices available to population in at the community level including the remote hard to reach communities. A study in the North Nigeria shows that when adequately trained and supportively supervised, community health extension workers can safely perform contraceptive implants insertion, providing more effective methods than the condoms and pills they are allowed to do without task shifting policy in Nigeria (108).

Lessons learned from a study in Rwanda shows community-based FP program cannot succeed if it does not ensure to supply what the users prefer. The deployment of CHW to improve supply of modern contraceptives in rural and hard to reach areas in Africa significantly expands geographic access but does not necessarily translate to improved contraceptive use (109). Similarly, evidence from a study in Ethiopia shows that a community-based family planning program and access to credit did not lead to significant improvement in the use of modern contraception because there was a mismatch between the contraceptive women preferred (injectable) and the pills and condom typically provided by community-based agents (110).

- **Male partner involvement**

Leveraging on evidence that men's main sources of reproductive health information are mainly peers and media, "Malawi Male Motivators" was an intervention created to reach the men that are often not included in other FP interventions. In this intervention male outreach workers (male motivators) deliver contraceptive information to fellow men in the community. The attitudes of the men and their motivation to adopt family planning were positively influenced by the trained male motivators. Additionally, participants were also encouraged to be actively involved in discussing, jointly deciding, as well as supporting their wives and girlfriends on family size, fertility and contraceptive choices and practices (111). The result showed such peer-delivered educational intervention improved male involvement and consequently, improved modern contraceptive uptake in Malawi.

- **Harness private sector outlets using social marketing and franchising and subsidies**

Private sector, particularly drug stores, provide a huge untapped potential to increase access to a range of modern contraceptive in Nigeria. For example, modern contraceptive methods are available in only 55% of potential service delivery outlets in Nigeria (58). And 80% of those modern contraceptive stocking outlets are in the private sector. However, only 54% of private sector has modern contraceptives and only 5% stocked at least three methods (58).

Drug stores and pharmacies together are responsible for most of the contraceptives provided by the private sector in sub-Saharan Africa, outside the urban area and where public facilities are few (112). They are usually the first place to go in those rural area for people seeking family planning information and services. They are also particularly convenient source not only for people of low-income, but also for the adolescents, men and unmarried women as well.

Using marketing techniques in collaboration with private providers network, social marketing and franchising, provide an important opportunity to reach key groups of people which other family planning program have poorly served (113). Those groups include the adolescent, unmarried women, men, low-income clients, and people living in rural settings (114), this have been shown to significantly improve access to Long-acting reversible contraceptives in sub-Saharan Africa (115,116).
Resent evidence from Nigeria shows social marketing program demonstrated significant success by exceeded 100,000 sales of LARCs(117) and that community health workers and patent medicine vendors can administer injectables contraceptives safely (118) when trained.

These findings show that for family planning programs to be successful in sub-Saharan Africa, it should involve men and it should have a country wide distribution of family planning services particularly at the community level. Additionally, it should have multiple contraceptive method mix that meet the needs of all the various groups in the population, including adolescents and unmarried people (101). Such strong family planning programs also need corresponding stable funding and good logistic management to ensure availability of adequate stocks at the service delivery points. Considering the fact that the least served population in Nigeria are the poorer people, those living in the rural area, the men, the adolescents, and the unmarried women, family planning program with strategies that have proven to increase the access to modern contraceptive for these groups will hold important key to significant increase in uptake and continued use of modern contraceptives in Nigeria.

Chapter 5

5. Discussion

The results of the thesis are discussed in this section under the five main segments of the chosen Jean Fredric Levesque 2013, Conceptual Framework: Perception of contraceptive needs; seeking contraception; reaching contraception; utilizing contraception; and satisfaction of contraception need. In each segment, the corresponding pairs of supply and demand factors will be discussed. A sixth segment is added that discussed the lessons learnt from sub-Saharan Africa that can help improve access to and uptake of modern contraception in Nigeria.

Poor perception of contraceptive needs in Nigeria.

The perception of modern contraceptives needs depend on the quality of information available to potential users and their corresponding ability to understand and process the information in other to make well informed decisions on whether they need modern contraceptives, what type suits them, when to use and where to obtain the services (119). The study finds inadequate supply of relevant information on modern contraception in Nigeria and corresponding poor health literacy, misinformation and which leaves many potential users unable to adequately perceive their need for contraception.

In Nigeria, there is inadequate supply of quality information on the different types of modern contraception and family planning services. The main source of family planning information are the media, but in the rural area where about half of the population lives, access to media is limited. Health workers are the other source of information on contraceptives, but health workers with sufficient training in family planning, and those with good communication skills, are in short supply especially at the rural settings where many of the less educated families that need the information live. Even where service providers are available, there are also concerns about their unfriendly attitude and bias that affect the quality of information they provide. Additionally, hospital-based dissemination of family planning information mainly reaches the married women who are the group that predominantly go to health facilities for antenatal clinic, post-natal clinic, immunization clinic and family planning clinics.

Though most studies suggest that the level of awareness of modern contraception is high in the country; however, that level of awareness does not indicate a good depth of knowledge regarding the various methods, the advantages of those methods, the likely

side effects and what to do when those side effects arise, where to procure modern contraceptives or seek any help regarding contraception. This depth of knowledge, as against being merely aware of one type of contraception, is what is required to be able to make well informed decision on contraception. Therefore, lack of information and the consequent lack of in-depth knowledge do not only affect the need perception but also the ability to engage with the services and the motivation to continue the use of modern contraception.

It is therefore not a surprise that misconceptions, belief in myth and fear of contraceptives are prevalent in Nigeria, considering the low literacy level especially in the rural area and among people of low socioeconomic quintiles. Poor perception of contraceptive need in Nigeria found in this study is consistent with the findings in a recent study which highlighted the insufficient knowledge for informed decision making on modern contraception as a major barrier to access in Africa (119,120).

Barriers to seeking contraception in Nigeria

Seeking contraception describes the health systems supplying contraceptive services that is considered acceptable by the potential users and the corresponding ability of the users to seek the service by overcoming their personal and contextual barriers. However, the results show that bias on the part of the service providers, their poor communication skills, and their unprofessional attitude tend to limit access to modern contraception in Nigeria, and this is worse in the pubic sector. This is consistent with the finding of one other study that shows providers bias is a violation of the principle of free choice, an important family planning program guiding principle (121), and constitute a significant barrier to access to modern contraception.

Consequently, unmarried individuals in Nigeria, particularly adolescents, find the modern contraceptive services at private facilities more acceptable and accommodating than family planning services in the public facilities. Here, the ease of walking into the shops without a prior appointment or prescription, extensive documentation and long queue in addition to more guaranteed confidentiality and anonymity, make this source preferable to most Nigerians especially the adolescents and the unmarried women. That explains why social marketing by some programs in Nigeria has been successful.

Some barriers to accessing modern contraception are at the individual level, where people choose not use contraception on the bases of religion, desire for another child or preference for a large family. Some other barriers are from family members and spouses who discourage or disapprove modern contraceptives or the society which frowns at unmarried women or adolescents' freedom to be sexually active and therefore use of modern contraceptives.

From married women who lack the agency and autonomy in deciding to use modern contraceptives to unmarried women and adolescents who find the family planning services unfriendly, especially in the public facilities, Nigerians women face significant barrier in seeking modern contraceptives acceptable to them.

Reaching contraceptives

To be considered reachable contraceptive services should be available to potential users who need them in a location they have ability to physical reach. The findings show that many Nigerians are unable to reach contraception because they live in an environment where there are limited number of service delivery points or stock-out of the family planning products or limited range of methods.

Lack of physical access constitutes a significant barrier to accessing modern contraceptive in a country where about 54% of the population live in rural settings some of which are hard to reach, and with limited number of functional health facilities. In some places where services are available (especially in the public sectors), they may not be adequately accommodating for all the groups of potential users. Their relatively more accommodating nature can partly explain why drug stores are preferred source of modern contraception in Nigerians. The ease of walking into the shops without a prior appointment or prescription, extensive documentation and long queue, in addition to more guaranteed confidentiality and anonymity, make drug stores preferable to many Nigerians especially the adolescents and the unmarried women. The stores are also more widely distributed especially at the community level, however, there are limited skilled family planning service providers, insufficient range of contraceptive methods, and relatively costlier services in the private facilities.

People living with physical and mental disability with unmet needs also have even more serious difficulties reaching contraception. Physical disability that limits the mobility of users is known to affect the ability to reach contraception, but in this study no literature was found in that regard. However, considering that contraceptives use is usually a private issue, it is likely that those with physical disability may have problem reaching modern contraceptives as a result of lack of confidentiality or anonymity especially if they have to be helped to move to service delivery point or helped with communication.

Utilizing contraception

Besides the challenges of physical access, many Nigerians have difficulties with financial access to modern contraceptives. The high level of poverty and low health insurance coverage means many people in Nigeria have difficulties paying for their needed contraception and implies that they are very sensitive to the prices of modern contraceptives at the private outlets. Even where the products are provided free of

charge at the public facilities, the indirect costs of obtaining the modern contraceptives such as cost of transportation constitute a barrier to modern contraceptives use.The direct cost of procuring long-acting reversible contraceptives (LARCs) such as injectables, implants and intrauterine devices (IUDs) at the private facilities is unaffordable to many Nigerians especially those of low socioeconomic status. The most commonly bought contraceptives are condoms, oral contraceptive pills (OCP) and emergency contraceptive pills (ECP). This is expected since they have cheaper per unit cost, they can easily be bought over the counters and require no prior appointment or long process of documentation. These features make them more accommodating to adolescents and unmarried women, and additionally, condoms offer protection from STIs. However, they are not the most cost-effective choice for family planning over the long term. This is because the cumulative unit cost makes them more expensive over a long term compared to the LARCs and highlights the need to overcome the high initial costs of LARCs.

Satisfaction of contraceptive need

The ultimate goal of access to modern contraceptives is to satisfy the contraceptive needs and to achieve this the service provider should have the appropriate technical and interpersonal skill and the users should be adequately empowered to engage with the service. However, this finding shows that many family planning service providers do not have the necessary skill set or adequate training to provide the range of methods different clients may prefer and this impact negatively on user satisfaction. Patent medicine stores and pharmacies do not have the capacity to administer injectable, implants or intrauterine devices. They also can not sufficiently assess and determine what method suits their clients. Consequently, in such cases, clients tend to prefer use of short acting methods such as condoms and pills which require less input from the providers. The result also shows that facilities that have the ability to offers services that meet adolescent needs, address the concern about side effects, offer follow up visit to client in their community, are found to be preferred by users.

On the other hand, one study found that many Nigerians expect the health professional to accurately determine what specific method is suitable for them this is because many lack the the self-efficacy to engage with the health service. Therefore, empowerment of clients with knowledge on the appropriate and consistent use of their preferred methods is shown to be necessary for users to derive maximum satisfaction. The results also show that women who enjoy follow up visits and those who are motivated by social groups and family planning champions in the society, and who know where to go and have their side effects addressed are shown to be more satisfied and willing to adhere to use of modern contraceptives.

Lessons learned

Large-scale media campaign aimed at influencing individual and community opinions and perception of family planning; use of community-based family approach; utilization of telehealth services such as text message or voice response based mobile technology; mobilizing and engagement of community family planning champions and male motivators; and continual education at antenatal clinics, are some of the method that have proven effective in Nigeria and other sub-Saharan Africa at increasing the supply of adequate and accurate family planning information.

Social marketing and franchising in collaboration with private sector supply of modern contraception by some programs in Nigeria provided the opportunity to better reach the groups that are least served by the public sector. With subsidies, social marketing and social franchising, the private sector provides an opportunity to reach those groups in the community usually poorly reached by other family planning programs.

Door to door distribution where family planning services were not only provided free of charge but distributed to the women at the community level among the people of low socioeconomic status, as modelled by Zimbabwe, Ethiopia and Rwanda, have been shown to improve uptake, use and continuation of modern contraceptives. Community health workers are particularly important in reducing inequities in access to services by bringing information, services, and supplies to women and men in the communities where they live and work rather than requiring them to visit health facilities, which may be distant or otherwise inaccessible. Evidence also show that more people will have access when there is collaboration of the private sectors and government such that family planning products are subsidized at the pharmacy, private clinics or patent medicine stores to make it affordable to the people through social marketing and franchising.

Task shifting and training of more family planning service providers, community-based distribution, information and education on modern contraceptives are strategies that can help in achieving the desired satisfaction of contraceptive need.

Limitations:
Nigeria is a large and diverse country and as such, some of the studies in one region may not necessarily be representative of the entire country and the inferences drawn from the studies in one region may not apply to all the other regions. However, this thesis used the literature available to draw inference on the entire country.

In searching for literature for this study, only the literature published in English language was included and those published in French and Portuguese, and other official languages in Sub-Saharan Africa were excluded. Therefore some useful lessons may have been inadvertently missed.

Some of the elements in the conceptual framework could not be adequately analyzed due to paucity of relevant literature in the study population within the scope of the thesis. Some examples of those element include transparency, outreach and screening under approachability; gender under acceptability; and mobility under ability to reach.

Chapter 6

6. Conclusions and Recommendations

Conclusions

Modern contraceptive prevalence in Nigeria has remained low despite a long history of family planning programs to meet the contraceptive needs of the population. This is because of the complex interplay of the demand and supply factors that limit access to adequate family planning information and services.

The main supply factors include inadequate information and education on modern contraception, insufficient method mix and stock out of products, inadequate skilled providers, limited supply of services acceptable especially to the people in the rural settings and unmarried women and adolescents.

The main demand factors include the culture of preference for large family, unfavorable attitude to premarital sex by unmarried women or adolescent and the patriarchal setting that gives little autonomy to married women for independent decision making about family planning. The pervasive myth and misconception about modern contraceptives, low literacy level, and poverty and religious factors, also play negative role against access to modern contraceptives

At the individual level, poor depth of knowledge of modern contraceptives fuels fear of side effect and other misconception and myth around modern contraceptives, lack of autonomy, poverty constitute significant barrier to use of modern contraceptives.

A strong family planning program that is well funded by the government and in collaboration with relevant stakeholders in the public and private sectors has been shown to mitigate these barriers to modern contraceptives access in other Sub-Saharan African countries and in some successful family planning projects in Nigeria. These programs work because they adopt strategies that involve massive media campaigns that influence societal norms to dispel fear and myth and misconception around modern contraceptives by supplying accurate information and enhancing dialogue. Secondly, community distribution ensures that people in remote or rural areas with limited access to health facilities are reached, while social marketing galvanizes the public sector involvement to reach the unmarried and adolescents.

In a country with many poorest couples and individuals who have the highest fertility, the lowest contraceptive use and the highest unmet need for contraception, it is imperative for the government to invest in pro-poor family planning strategies that works. This is particularly a matter of public health and policy urgency considering that

maternal and child mortality is highest among these poor and that the young population of Nigeria is going to have even more unmet needs for modern contraceptives as many more continue to arrive in the reproductive age over the next decade.

Recommendations

On the evidence of the findings in this study, the following recommendations are made to the Federal Government, State Government and Local government of Nigeria and all relevant stakeholders and partners working to improve access to modern contraceptive services in the country.

1. Information, education and communication.
    a. Using all media to supply accurate information on availability, quality, safety and various types of modern contraception and dispel the pervasive fear of side effects, misconceptions and myths around modern contraceptives
    b. For rural communities where access to electronic and print media is limited, employ community FP champions who will be trained to communicate effectively with the people and disseminate accurate contraceptive information and dialogue in the local languages.
    c. Invest in behavioral change communication to educate the public in order to influence societal norms and attitudes that constitute barriers to accessing modern contraception by adolescent and unmarried women. While also educating men to empower women with autonomy for contraceptive decision-making
    d. Mobilize support of the opinion leaders including imams, pastors, civil society organizations, community-based organizations, faith-based organizations, women groups, schools, youth associations for greater and sustainable community impact.
    e. Increase access to sexual and reproductive health information, (availability and quality of family planning and health services in the community) supplies and services, particularly for young people, unmarried women and those living in poorer households.

2. Modern contraceptive products availability and distribution
    a. Increase family planning service delivery points around the country especially rural and resource poor setting with constant supply of modern contraceptives stocks.
    b. Employ community-based distribution approach, by employing group of men and women to educate, motivate and distribute modern contraceptives in the community.
    c. Encourage public private partnership which privately run facilities are supported by the government to provide high-quality, comprehensive sexual and reproductive health services; and drug stores are supported to provide some modern contraceptive methods at a more affordable cost and engage in social marketing and franchising to reach adolescent and unmarried people.
    d. Mobile clinics to reach hard to reach internally displaced people camp or hard to reach remote areas.

3. Human resource for health
    a. Health worker trainings and health system upgrades focused on ensuring the provision of high-quality and respectful services across the spectrum of sexual, reproductive and maternal health care for all women
    b. Employment more health workers in family planning services
    c. Implement task shifting policy and capacity building of low cadre health workers for family planning services.

4. Strong political will and financial commitment from the government
    a. Make family planning a national priority and create honor Abuja declaration and family planning 2020 commitment.
    b. Ensure prompt release of counterpart funding for family planning line item in healthcare system's budgets.

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