Utilization of Family Planning Services in Africa’s Most Populous Nation, are we at a tipping point

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Abstract
Background
Nigeria is the most populous country in Africa, with a population growth rate of 2.53 percent, one of the highest contributors to the global maternal and new born deaths burden. Family planning service utilization has remained low despite efforts by development partners and the government. Hence, the need to examine the utilization of family planning services in order to understand regional preferences, trends, patterns, and utilization associated factors such as accessibility and availability of the services to the populace.

Methodology
Critical analysis regarding the utilization of family planning in Nigeria was used with source data from NDHS 2003, 2008, 2013, and 2018 and DHIS2. The analysis focused on the utilization of family planning services and most utilized family planning options.

Finding
Contraceptive use among women of reproductive age is generally higher in the northern region than in the southern region. A five-year trend in the utilization of family planning services by women of reproductive age is showed a slightly declining trend in the utilization of family planning services by women of reproductive age in the country. Injectables and implants were married women’s most utilized family planning options. As reported by health facilities, utilization of family planning services in 2021 showed that condoms and implants were the most utilized family planning options.

Conclusion
The findings urge the need to intensify sensitization among the rural populace on the benefits of family planning, improve female literacy and empowerment, and make easily accessible family planning services and commodities.

Keywords: Utilization, Family Planning, Services, Contraceptives, Implants, Injectables, Condoms

Background
The utilization of family planning services in Nigeria has remained low despite efforts by the government and development partners [1,2,3,4]. Nigeria is a country on the Gulf of Guinea, with the highest human population in Africa, the ripple effect of this population growth. Without commensurate improvement in the socio-economic and human per capita index, the consequences will be enormous, from emerging urban slums posing a greater risk for disease outbreaks to resource depletion, rising unemployment rates among the populace etcetera [5] reported 2.5 percent as Nigeria’s annual rate of population change between 2020-2025, with a 3.11 percent Gross Domestic Product (GDP) growth in quarter one (Q1) of 2022 [6], when compared to the United States of America, with a 0.57 percent annual growth rate in 2022 [7], This brings to bear that the rate of Nigeria’s population explosion is not sustainable in the long term. According to findings of [7], the contraceptive prevalence rate of family planning utilization among married women or those in a union was 12%. This implies that...
88% of women of reproductive age who are married or in a union do not utilize family planning services, thereby being at risk for unintended pregnancies, which may result in unsafe abortion or bearing children out of choice. Family planning is one of the most cost-effective ways to prevent maternal, infant, and child mortality as it reduces the number of unintended pregnancies, the number of abortions, and the proportion of births at high risk [8]. Therefore, one can conclude that the low uptake of family planning services could be one of the reasons for Nigeria’s high maternal, infant, and child mortality rates. From the economic viewpoint, family planning helps reduce parenthood’s financial and emotional burden. Families with fewer and healthier children can devote more resources to providing their children with adequate food, clothing, housing, and educational opportunities [9]. The high proportion of malnourished and out-of-school children in Nigeria, as asserted by, can again be attributed to the low uptake of family planning services.

Access to and knowledge about family planning are predictors of the services’ utilization [10]. In Nigeria, family planning services are conducted at all levels (primary, secondary, and tertiary) of health care, making the services accessible to the population. Regarding family planning, several studies have reported adequate knowledge but only for residents of urban areas and among women who had at least a secondary level of education [11]. This implies that the vast majority of rural dwellers, which accounts for 80% of the population, do not have adequate knowledge about family planning hence a likelihood of non-utilization of the services. Other predictors of the utilization of family planning services in Nigeria are the level of education, wealth index, and geo-political region of residence [12]. According to [13], contraceptive prevalence ranges from 26% in Lagos State (Southwest) to <1% in Jigawa and Kano States (Northwest). Male partner consent has also been shown to predict uptake of family planning services [14]. Findings of a study by [15] showed that the use of family planning was high among the respondents whose husbands gave consent to the use of family planning. Low utilization of family planning services in Nigeria implies the poor state of predictive factors (access, knowledge, and partner consent) coupled with barriers to utilizing these services. According to [16], barriers to using modern methods of family planning services in Nigeria include concern for safety to health, Husband’s opposition, desire for more children, religious prohibition, lack of money, and fear of side effects.

Given the many benefits of family planning, it is pertinent that Nigeria develops and implements interventions to improve the utilization of family planning services, especially now that the country is faced with poor maternal, newborn, and economic indices. Though there have been several interventions and programs by both the government and development partners aimed at improving the utilization of family planning services, such interventions and programs seem to yield just little results as utilization has remained consistently low.

Interventions and programs aimed at improving the utilization of family planning services can only be effective and yield desired results if the utilization of the services in terms of preferences, trends, patterns, and utilization associated factors such as accessibility and availability of the services to the populace is examined. Interventions and programs developed and implemented based on findings from such examinations are believed to yield more results. Therefore, it only makes sense to understand the regional distribution of the utilization of family planning services, to help inform strategic reproductive health program planning and implementation. Hence this paper aims to explore the utilization of family planning services in Nigeria.

Methodology
Critical analysis regarding the utilization of family planning in Nigeria was used with source data from Nigeria Demographic Health Survey (NDHS) 2003, 2008, 2013, and 2018 and District Health Information System 2 (DHIS2). The analysis focused on the utilization of family planning services and most utilized family planning options.

Results
Percentage Of Sexually Active Women (Aged 15–49 Years) Using Modern Contraceptives
Male and female sterilization, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, the standard day’s method, the lactational amenorrhoea method (LAM), and emergency contraception are some of the available family planning methods in Nigeria. Figure 1 below shows the percentage of women aged 15–49 years using modern contraceptives.
Contraceptive use among women of reproductive age is generally higher in the northern region than in the southern region. The implication is that a greater proportion of women of reproductive age in the northern region are married or in a union compared to their counterparts in the southern region. The findings could also imply that there are more controlled births in the northern region compared to the southern region. The rate of abortions could also be inferred to be less in the region with high utilization of family planning services.

A five-year trend in the utilization of family planning services by women of reproductive age is shown in figure 2. There is a slightly declining trend in the utilization of family planning services by women of reproductive age in the country, the implication of which includes uncontrolled births, an increasing rate of abortions, and an increasing economic burden for families.

**Figure 1:** Percentage of Women Aged 15-49 Years Using Modern Contraceptives (Source: Dhis2)

**Figure 2:** A Trend of Women Aged 15-49 Years Using Modern Contraceptives (Source: Dhis2)

**Contraceptive Prevalence Rate (CPR)**

The Contraceptive (CPR) is a true and better measure of contraceptive use as it only considers those who are married or in a union. The trend below shows CPR from the various District Health Survey (DHS) in Nigeria. The rising trend is an indication of the increasing utilization of family planning services among married women.
New Family Planning Acceptors

Before any health care service is utilized, the clients must first accept it. Acceptance of health care services by clients is often a sequel to several sensitization and enlightenment on the importance of such services. Figure 4 below shows the percentage of eligible clients accepting family planning services. An average of 52% acceptance of the services is seen in the northern region, slightly higher than the average in the southern region.

The gentle rising trend of new family planning acceptors depicted in Figure 5 suggests the slow behavioral change in response to interventions targeted at increased utilization of family planning services.
Figure 5: Trend in Family Planning Acceptance From 2017-2021 (Source: Dhis2)

**Most Utilized Type of Family Planning Services**
Utilization of any of the several family planning options (injectable, condoms, pill, implants, IUD) implies its availability and preference by clients. Findings from [7], revealed that injectables and implants were married women’s most utilized family planning options. As reported by health facilities, utilization of family planning services in 2021 showed that condoms and implants were the most utilized family planning options as shown in Figure 6 below.

Figure 6: Family Planning Options Utilized by Clients In 2021 (Source: Dhis2)

**Discussion**
Family planning service utilization was found to be high in the northern region. This finding was in contrast to that of [12], who found low utilization in the region. The inconsistency in these findings could be due to methodological differences employed by the studies. While the study by Johnson employed a cross-sectional approach where data was obtained through interviews, the present study used reported data from the National Health Management database. The increasing trends in CPR and acceptance of family planning services imply more controlled births in the near future and, consequently, a decline in maternal and neonatal mortalities and improved household economies and standard of living. The findings of this study showed that family planning acceptance was slightly higher in the northern region compared to the southern region. This is not consistent with [13], whose findings showed more acceptance rate in the south-south region. The result of the present study could be valid given that a four-year period (from 2017 to 2021) is enough to have a behavioral change towards acceptance of the services, especially in the face of several regional interventions.

**Conclusion**
The utilization of family planning services has remained low over the years; this may be because family planning is still a contentious issue in contemporary Nigeriansociety because of traditional and cultural beliefs. In recent years, however, due to increased formal education and intensified efforts by partners and government, slight improvement is being recorded in the utilization of the services, as evident in the increasing trend of CPR and acceptance rate of the services.
Recommendations
The following are recommended to improve the utilization of family planning services
i. Intensified sensitization especially of the rural populace on importance and benefits of family planning.
ii. Measures should be taken to improve female literacy and employment as these will most likely lead to improved utilization of family planning services among women.
iii. Implants should be supplied in adequate quantities to health facilities providing family planning services to avoid stock-out given its preference by clients.

Limitations
Dhis2 data does not provide detailed information about clients or users of family planning. Thus, the study was limited in the level and depth of analysis that was intended. For instance, the study intended to investigate the utilization of family planning services viz-a-viz clients’ age, level of education, and place of residence (urban or rural) to compare findings with previous studies.

Abbreviations
GDP: Gross Domestic Product
Q1: Quarter one
NDHS: Nigeria Demographic Health Survey
DHIS2: District Health Information System 2
IUD: Intrauterine Device
LAM: lactational amenorrhoea method
CPR: Contraceptive Prevalence Rate
DHS: District Health System
MSDAT: Multi-Source Data Analytics and Triangulation Platform.

Ethics Approval and Consent to Participate
Not applicable

Consent for Publication
Not applicable

Availability of Data
This study used data that are available from publicly accessible data sources. In particular, all NDHS and Dhis2 datasets are available from MSDAT’s online platform at https://msdat.fmohealthconnect.gov.ng

Competing Interest
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Authors’ contributions
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