

Contraceptive Use in Nigeria: Challenges and Pathways to Sustainable Solutions

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Abstract

Background: Contraceptive uptake in Nigeria remains low, despite its proven benefits in reducing unintended pregnancies, maternal morbidity and mortality, and unsafe abortions. Like many Sub-Saharan African countries, Nigeria faces a high rate of unmet need for family planning, largely due to persistent socio-cultural and systemic barriers.

Objectives: This paper examines the current state of contraceptive use in Nigeria, with the aim of identifying key challenges and proposing actionable solutions. It explores the concept of contraception, current prevalence and usage patterns, influencing factors, and barriers to access and utilisation.

Methods: A desk-based narrative review was conducted using data from the 2018 Nigeria Demographic and Health Survey (NDHS) and relevant peer-reviewed literature. Trends in contraceptive use among married and unmarried women aged 15-49 were analysed, alongside factors influencing uptake.

Results: As of 2018, the contraceptive prevalence rate among married women was 17%-12% used modern methods, while 5% relied on traditional methods. Among sexually active unmarried women, 28% used modern methods, with male condoms (19%) being the most common. Factors influencing use include age, education, religion, socioeconomic status, fertility preferences, residence, and attitudes. Key barriers include cost, distance to health facilities, limited availability of methods, fear of side effects, misinformation, and limited male involvement.

Conclusion: Nigeria's contraceptive prevalence remains far below the government's target of 27%. Addressing these gaps requires multi-sectoral strategies involving increased government investment, improved access to services especially in rural areas and greater community and male engagement in family planning efforts.

Keywords: Contraceptive Use; Family Planning; Reproductive Health; Nigeria; Barriers and Solutions

Introduction

Many developing countries continue to grapple with significant public health challenges, including rapid population growth, unintended pregnancies, and unsafe abortions largely attributable to low rates of contraceptive use [1]. In Nigeria, maternal health remains a pressing concern. Abortion is legally permissible only when the life of the woman is at risk. According to the 2018 Nigeria Demographic and Health Survey (NDHS), the country recorded a maternal mortality ratio of 512 deaths per 100,000 live births a figure considerably higher than that of developed nations [2]. Family planning is widely recognised as a crucial intervention for reducing maternal deaths. The use of contraceptive methods plays a vital role in preventing unintended pregnancies, reducing induced abortion rates, and lowering maternal morbidity and mortality [2].

As of 2015, the global population was estimated at 7.3 billion and projected to reach 8.5 billion by 2030. Much of this growth is expected in high-fertility countries like Nigeria, which had a total fertility rate of 5.53 children per woman in 2016 [3]. Nigeria's population, then estimated at over 190 million, is projected to increase by 44% between 2015 and 2030 [4]. Increased contraceptive use in high-birth-rate nations such as Nigeria could significantly reduce poverty, hunger, and contribute to lowering maternal and child mortality accounting for an estimated 32% of maternal deaths and 10% of child mortality [5].

Nigeria remains one of the most populous countries in Sub-Saharan Africa, with a total fertility rate (TFR) of 5.3 among women aged 15-49 years [6]. Only 17% of married women report using any form of contraception, and 19% report an unmet need for family planning. Among these users, 12% use modern methods, 5% use traditional methods, with injectables and implants each accounting for 3% of current use [6].

Globally, of the 1.9 billion women of reproductive age (15-49 years) in 2019, approximately 1.1 billion had a need for contraception. Of these, 842 million were using contraceptive methods, while 270 million still had an unmet need. The proportion of family planning needs met by modern methods (SDG Indicator 3.7.1) stood at 75.7% globally in 2019; however, less than half of this need was met in Western and Central Africa [7].

In response to the challenges posed by rapid population growth, unsafe abortions, and high maternal mortality which place enormous strain on healthcare systems and societal resources global efforts have increasingly focused on strategies to reduce fertility rates [8]. These priorities are embedded within the Sustainable Development Goals (SDGs), which advocate for improved maternal and child health. The 2030 Agenda emphasises gender equality, empowerment of women and girls, and the realisation of sexual and reproductive health and rights, extending beyond prior global commitments. Specifically, SDG Goal 3 (health) and Goal 5 (gender equality) explicitly reference access to family planning as key to achieving broader development objectives. Without universal access to quality, rights-based family planning services, it will be difficult to end poverty, eliminate hunger, improve educational outcomes, or drive sustained economic growth [8].

Nevertheless, contraceptive uptake remains low across much of Sub-Saharan Africa, including Nigeria [9]. United Nations Population Division estimates indicate that in 2020, approximately 218 million women in developing countries wanted to avoid or delay pregnancy but were not using any modern method of contraception [9].

Barriers to contraceptive use are multifaceted. Logistical challenges, such as long distances to healthcare facilities and frequent stock outs of contraceptive supplies, are common. Social barriers including opposition from partners or family members further limit access. Additionally, many women lack adequate knowledge of their fertility, are unaware of available contraceptive options, or hold misconceptions regarding the safety and effectiveness of modern methods [10].

Conceptual framework

Concept of contraceptive

The term contraceptive originates from the Latin word “kon-truh-septiv”, which means “serving or intended to prevent conception or impregnation”. It refers to any method, device, or medication designed to prevent pregnancy. Contraception is the deliberate prevention of pregnancy by interfering with the normal physiological processes of ovulation, fertilization, or implantation. It may also be regarded as a family planning strategy or a modern technological advancement aimed at regulating fertility [11,12].

Contraceptives can be described as tools, drugs, or procedures that prevent conception either by stopping the sperm from fertilizing the ovum or by preventing the implantation of a fertilized egg [11]. In essence, contraception is the intentional prevention of pregnancy through the use of contraceptive measures [13].

According to Darroch., *et al.* (2011), contraceptive use enables couples and individuals to exercise their fundamental right to freely and responsibly determine the number and timing of their children [14]. Ahmed., *et al.* (2012) estimated that contraceptive use can avert more than 40% of maternal deaths. The utilization of modern contraceptive methods not only helps couples achieve their desired family size but also assists in proper birth spacing. This significantly reduces maternal and infant mortality by preventing unsafe abortions, birth-related injuries, and other pregnancy complications [15].

Effective contraceptive use reduces maternal mortality by preventing teenage pregnancies and ensuring adequate birth intervals. Studies indicate that children born less than two years after a previous birth are twice as likely to die within their first year of life compared to those born after an interval of two years or more. As of 2015, the global population stood at 7.3 billion and is projected to reach 8.5 billion by 2030. It is noteworthy that Nigeria continues to record the highest fertility and morbidity rates in Africa [16].

Types of contraceptive

Contraceptive methods are broadly categorized into traditional and modern methods.

Traditional methods include rings or herbs, waistbands, scarification, padlocks, potash solutions, blue powders, feathers, abstinence, polygamy, and coitus interruptus, among others.

Modern methods are further divided into natural and artificial approaches.

Natural methods include abstinence, withdrawal, Lactational Amenorrhoea Method (LAM), Cycle Beads Method, Basal Body Temperature (BBT), Calendar or Rhythm Method, Billing’s Method, and the Sympto-Thermal Method.

Artificial methods include hormonal and non-hormonal options.

Hormonal methods: Oral contraceptive pills, injectables, and implants.

Non-hormonal methods: Barrier methods (male and female condoms, diaphragms, foams, jellies), sterilization, intrauterine devices (IUDs), and periodic abstinence.

Modern contraceptive methods such as male and female sterilization, IUDs, implants, injectables, pills, condoms, and spermicides are more effective in preventing pregnancy compared to traditional methods like withdrawal and periodic abstinence [17].

Historical background of contraceptive use in Nigeria

The desire to regulate reproduction is as ancient as humanity itself, with traditional methods dating back to the time of early ancestors. Modern contraceptive practices were introduced in Nigeria in the 1950s due to rising cases of unwanted pregnancies, abandoned babies, and maternal deaths resulting from unsafe abortions [18].

In 1958, the Marriage Guidance Council was established, and Dr. Adeniyi Jones opened the first family planning clinic in Lagos. However, it later closed due to funding challenges. In 1964, Pathfinder International funded the Family Planning Council (FPC) of Nigeria, a voluntary and non-profit body that eventually became the Planned Parenthood Federation of Nigeria (PPFN) [19].

In 1965, Professor A. O. Ojo of the Department of Obstetrics and Gynaecology, University College Hospital (UCH), Ibadan, opened an evening family planning clinic (5-8 p.m.) with Mrs. Ebun Delano, where they trained doctors, nurses, and other providers [20].

By 1982, family planning education had been incorporated into the midwifery curriculum at UCH Ibadan through the efforts of Mrs. R. O. Babalola and international partners such as Johns Hopkins and Pathfinder International. In 1988, the National Policy for Population Control was drafted under General Ibrahim Babangida's administration [20].

Current contraceptive usage in Nigeria

The Nigeria Demographic and Health Survey (NDHS, 2018) reports that 17% of married women aged 15-49 use some form of family planning, with 12% using modern methods and 5% relying on traditional ones. The most common methods are implants (3%), injectables (3%), and withdrawal (3%). Among sexually active, unmarried women in the same age group, 28% use modern methods, and 9% use traditional ones the male condom (19%), withdrawal (5%), and pills (3%) being the most popular [21].

Modern contraceptive use is higher among urban women (18%) compared to rural women (8%) and increases with wealth from 4% in the poorest households to 22% among the richest. Regionally, usage ranges from 2% in Sokoto and Yobe States to 29% in Lagos. Over time, modern method use rose from 4% in 1990 to 12% in 2018 [22].

Studies show greater use of modern contraceptives in the urban and southern regions of Nigeria compared to the rural and northern regions [22]. Factors influencing contraceptive use include age, marital status, education, religion, knowledge, socioeconomic status, family size, parity, residence, and attitudes toward family planning [22].

Lamina (2015) found that women who approved of family planning were twice as likely to use contraceptives compared to those who disapproved [23].

A study in Abakpa Nike, Enugu State by Mgbe., *et al.* (2018) showed 89% of respondents were aware of modern methods, with effectiveness and partner involvement being key reasons for usage. Similarly, Obi and Labiran (2015) in Benin City reported that 85% of women were aware of contraception, 92% had correct knowledge, 82% had positive attitudes, and 64.5% were users [24].

Despite these benefits, Nigeria's contraceptive prevalence rate (CPR) for modern methods has increased only slightly-from 3.5% in 1990 to 12% in 2018 (NPC and Macro, 1999-2018). Consequently, the total fertility rate (TFR) decreased marginally from 6.0 to 5.3, while maternal and child mortality remain high (512/100,000 and 132/1,000, respectively) [24].

Regional disparities persist: women in the South-West, South-South, and South-East report higher use (35%, 22%, and 28%) than those in the North-Central, North-East, and North-West (16%, 10%, and 7%) [24].

Education remains a major determinant of contraceptive use. Higher education correlates positively with modern contraceptive uptake [25]. Babae and Mpupa (2011) reported that women with primary, secondary, or tertiary education were more likely to use family planning than illiterate women [26].

Jalango (2013) found that 40% of uneducated women had a child by age 20, compared to 30% of those with primary education and only 8% with secondary education [27]. NDHS (2018) also revealed that women with secondary or higher education had a 23% contraceptive use rate, compared to 4% among those with no education [22].

Age is another significant factor; younger women generally have stronger fertility desires, while middle-aged women show higher contraceptive use. A study by Hacitepe (2013) confirmed that middle-aged women use contraceptives more frequently than both younger and older women [28].

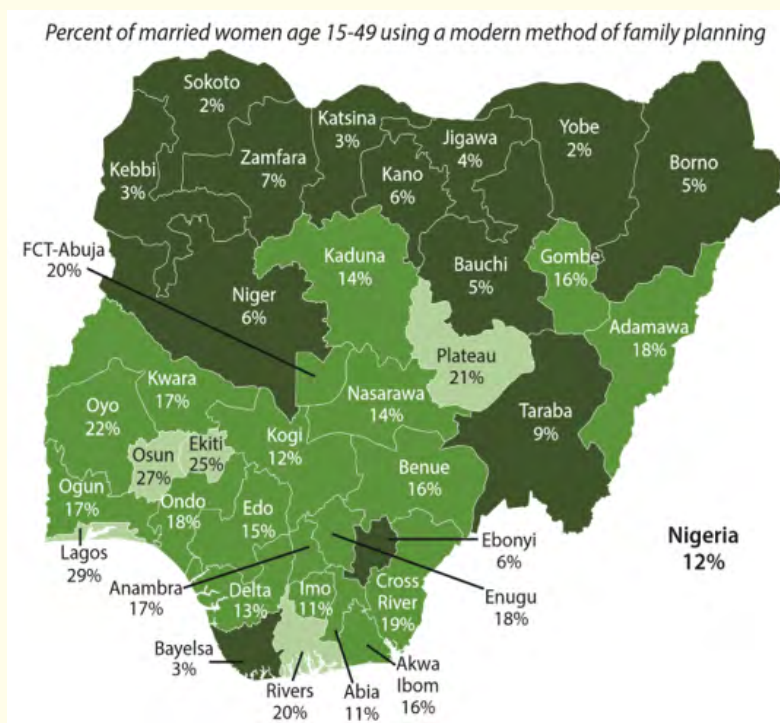


Figure: Source: Adopted from 2018 Nigerian demographic and health survey.

Women's demand for family planning [29]

Women who wish to delay or stop childbearing are considered to have a demand for family planning services. According to the 2018 Nigeria Demographic and Health Survey (NDHS), the total demand for family planning among married women in Nigeria stands at 36%. Approximately one in five married women (22%) desire to postpone childbearing either to delay their first birth or to space subsequent births for at least two years while 14% wish to stop childbearing entirely. This total demand encompasses both met and unmet needs. The met need refers to the proportion of women currently using contraceptive methods, also known as the contraceptive prevalence rate. In Nigeria, about 17% of married women use any form of family planning method [29].

Unmet need for family planning

The term unmet need for family planning describes the proportion of married women who intend to delay or cease childbearing but are not currently using any method of contraception. In Nigeria, 19% of married women have an unmet need for family planning 12% wish to delay childbirth, while 7% want to stop entirely [30]. The rate of unmet need has slightly increased from 16% in 2013 to 19% in 2018. This persistent gap between desire and actual use highlights the need for more effective reproductive health interventions and awareness programs [30].

Demand for family planning satisfied by modern methods

The indicator known as demand satisfied by modern methods measures how many women who want to delay or stop childbearing are effectively using modern contraceptives. In Nigeria, only about one-third of women's family planning needs are met through modern methods. Encouragingly, this has improved over time from 13% in 1990 to 34% in 2018. The increased use of modern contraceptives has contributed to the prevention of approximately 12,000 maternal deaths [30].

Challenges to contraceptive use

Despite awareness of family planning benefits, numerous barriers hinder the adoption and consistent use of contraceptive methods, particularly modern ones. These challenges are both socio-cultural and systemic.

Myths and misinformation

Misconceptions and rumors about family planning are widespread, often discouraging women from adopting modern contraceptive methods. Studies have reported fears that contraceptives cause infertility or serious side effects [31]. Such misinformation, commonly spread through informal networks, remains a significant obstacle [31].

Desire for more children

In many parts of Nigeria, the desire for large families remains culturally ingrained. Some studies found that women who have not reached their desired family size tend to avoid contraceptives [32]. In semi-urban areas of Ekiti State, Durowale, *et al.* (2017) found that about 39.5% of women preferred to have more children, influenced by cultural ideals surrounding fertility and family prestige [32,33].

Age

Age also influences contraceptive uptake. Older women are more likely to use family planning methods than younger ones [5]. Vasundhara, *et al.* (2012) observed that contraceptive use peaks among women aged 30 years and above and declines after that age, reflecting both reproductive goals and biological factors [5].

Education

Education strongly correlates with contraceptive use. Studies reveal that educated women are more likely to use modern contraceptives and have smaller, better-planned families. Evidence from multiple Demographic and Health Surveys confirms that increased education levels enhance family planning awareness and adoption [34].

Cultural and religious barriers

Cultural norms and gender roles significantly influence reproductive decisions. In some communities, women require their husband's or mother-in-law's approval to access family planning services. Cultural ceremonies such as the Ewu Ukwu celebration among the Igbo, which honors mothers of ten or more children, reinforce pro-natalist attitudes [35].

Accessibility and availability

The physical and logistical accessibility of contraceptive services remains a key determinant of use. Rural areas often lack well-equipped family planning centers or trained providers. Women's limited mobility, particularly under cultural restrictions like purdah, further reduces access [36].

Employment and economic status

Women's economic empowerment and employment status play vital roles in contraceptive uptake. Employed and wealthier women tend to have higher rates of modern contraceptive use. Financial independence fosters decision-making autonomy and facilitates access to healthcare services [36].

Regional disparities

Contraceptive prevalence is consistently higher in urban areas than rural ones, where access to healthcare and education is limited. The NDHS (2018) indicates that 26% of married women in urban areas use contraceptives compared to only 10% in rural settings [37].

Male partner objection

Opposition from husbands or partners is a common reason for non-use of family planning. In patriarchal societies, men often dominate fertility-related decisions, and women may refrain from contraception due to fear of conflict or disapproval [38].

Gender preference and high parity norms

A persistent preference for male children often leads couples to continue childbearing until a son is born. In Northern Nigeria, the ideal number of children averages 7.5, with many couples desiring even more [38].

Gender inequality

Patriarchal norms severely limit women's autonomy in reproductive decisions. Men often make final choices concerning family size, timing of pregnancies, and contraceptive use. As a result, women's health outcomes are often dependent on their partners' preferences [39].

Knowledge and information gaps

Limited awareness about modern contraceptive methods-how they work, where to access them, and their safety-continues to undermine usage, especially in rural communities [40].

Cost of services

Financial constraints and the cost of contraceptives discourage use among low-income women. Dependence on donor-funded supplies also creates supply chain inconsistencies, affecting sustained access [40].

Association with promiscuity

In some conservative communities, contraceptive use especially by unmarried women is perceived as promoting promiscuity and moral decline, leading to social stigma [40].

Solutions to improve contraceptive use

Several strategies have been proposed to address these barriers:

1. Establishment of adolescent and youth-friendly centers: Providing youth-friendly reproductive health services in hospitals and community clinics can increase contraceptive uptake among young people. Public-private partnerships have been recommended to enhance access and quality [38].
2. Male involvement: Encouraging men's participation in family planning decisions can significantly increase contraceptive acceptance. Programs should target men alongside women to promote shared responsibility [29].
3. Health education and awareness campaigns: Continuous community education through antenatal, postnatal, and outreach programs-can dispel myths and foster informed choices about contraception. Media campaigns and religious group sensitization are also effective tools [19].
4. Improved accessibility: Governments should expand the number of family planning centers, especially in rural areas, and provide free or subsidized contraceptives. Increased availability of trained healthcare workers and mobile clinics can enhance outreach [12].
5. Policy and legal frameworks: A strong national reproductive health policy, including task-shifting strategies and gender-sensitive laws, is essential to expand contraceptive access. Advocacy for policy reforms, community engagement, and greater political commitment can improve service delivery [34].

Methodology

This study employed a desk-based narrative review and meta-analysis approach to examine the current state of contraceptive use in Nigeria.

Data were extracted from the 2018 Nigeria Demographic and Health Survey (NDHS), peer-reviewed journals, and reports published between 2010 and 2023.

Searches were conducted using databases such as PubMed, Google Scholar, and ScienceDirect. The analysis used descriptive statistics and thematic synthesis to identify key trends, patterns, and determinants of contraceptive use across Nigeria.

Study design

This research adopted a desk-based narrative review and meta-analysis design aimed at synthesizing existing evidence on contraceptive use in Nigeria. The study design allowed for the critical examination and comparison of findings from diverse sources, including demographic surveys, peer-reviewed journals, and national policy documents. The meta-analytical component quantitatively pooled relevant data from secondary sources to estimate overall contraceptive prevalence, identify determinants of use, and highlight regional disparities.

Data sources

Data for this study were obtained from multiple credible and verifiable sources.

The primary data source was the Nigeria Demographic and Health Survey (NDHS 2018), which provides comprehensive national statistics on fertility, contraceptive use, and reproductive health indicators. Supplementary data were drawn from peer-reviewed journals published between 2010 and 2023, reports from the World Health Organization (WHO), United Nations Population Fund (UNFPA), and the National Population Commission (NPC), as well as from PubMed, Google Scholar, and ScienceDirect databases.

Search strategy

A systematic search was conducted to identify relevant literature addressing contraceptive use, determinants, and barriers in Nigeria. The search used a combination of Boolean operators and keywords such as "contraceptive use in Nigeria," "family planning uptake,"

“barriers to contraception,” “determinants of contraceptive use,” and “reproductive health in Sub-Saharan Africa”. Searches were restricted to studies published in English from January 2010 to June 2024. Reference lists of key papers were also screened manually to identify additional relevant publications.

Inclusion criteria

The following criteria guided the inclusion of studies in the review and meta-analysis:

1. Studies conducted within Nigeria or among Nigerian populations.
2. Quantitative or mixed-method studies reporting data on contraceptive prevalence, patterns, or determinants.
3. Articles addressing barriers, facilitators, or policy implications of contraceptive use.
4. Publications appearing in peer-reviewed journals, government reports, or recognized institutional databases.
5. Studies published between 2010 and 2024.

Exclusion criteria

Studies were excluded from the analysis if they:

1. Were not directly related to contraceptive use or family planning.
2. Lacked measurable data or relevant statistical indicators.
3. Focused primarily on populations outside Nigeria.
4. Were opinion pieces, editorials, or policy briefs without empirical evidence.
5. Were duplicates or unavailable in full text.

Data extraction and analysis

Data extraction was performed using a structured template to ensure consistency and accuracy.

Information such as author, year of publication, study location, sample size, contraceptive prevalence, determinants, and major findings were recorded.

Descriptive statistics (percentages and proportions) were used to summarize prevalence and usage patterns, while thematic analysis was employed to categorize qualitative findings.

Quantitative data from the NDHS and other national surveys were pooled to generate aggregate estimates of contraceptive use by region, education, age, and socioeconomic status.

Results were presented using bar charts, pie charts, and line graphs for visual clarity.

Significance of the study

This study contributes to the body of knowledge on reproductive health by providing an updated synthesis of evidence on contraceptive use in Nigeria.

It highlights not only the prevalence and determinants but also the persistent socio-cultural and systemic barriers affecting family planning uptake.

The findings offer valuable insights for policymakers, public health practitioners, and development partners seeking to enhance family planning programs and achieve Nigeria’s reproductive health targets under the Sustainable Development Goals (SDGs).

Scope and limitations

The scope of this study is national, encompassing all six geopolitical zones of Nigeria, with emphasis on patterns, determinants, and barriers to contraceptive use among women of reproductive age (15-49 years). However, the study is limited by its reliance on secondary data, which may not fully capture emerging community-level dynamics or the most recent changes since 2018. Variations in methodology and sample size among included studies also pose potential heterogeneity in results. Despite these limitations, the triangulation of multiple credible data sources strengthens the reliability and validity of the findings.

Results

The meta-analysis revealed regional, educational, and socioeconomic disparities in contraceptive use across Nigeria.

The national contraceptive prevalence rate (CPR) was 17% among married women aged 15-49 years, with 12% using modern methods and 5% traditional methods.

Usage was higher among urban residents (26%) than rural dwellers (10%), and education showed a strong positive correlation with uptake.

The following charts present the descriptive statistics visually.

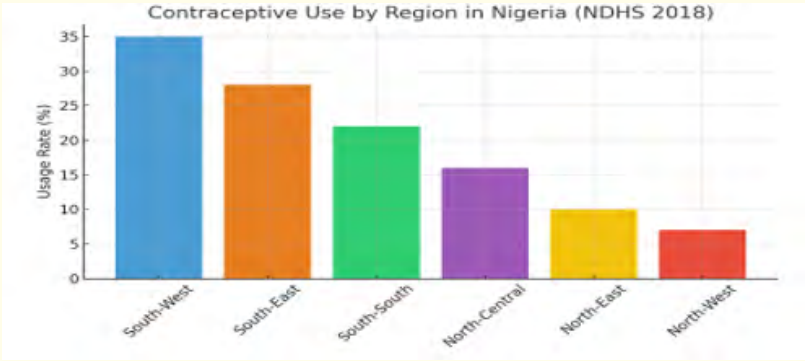


Figure 1: Contraceptive use by region.
Source: Nigeria Demographic and Health Survey (NDHS, 2018).

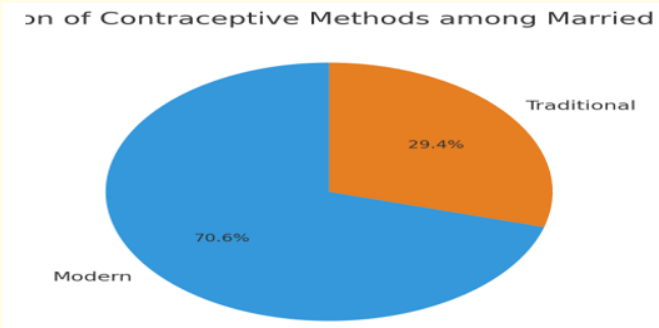


Figure 2: Distribution of contraceptive methods.
Source: NDHS (2018).

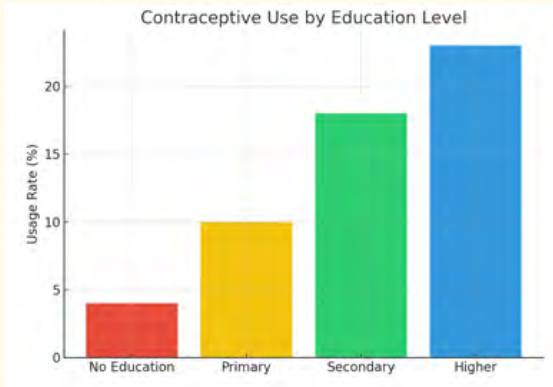


Figure 3: Contraceptive use by education level.
Source: NDHS (2018).

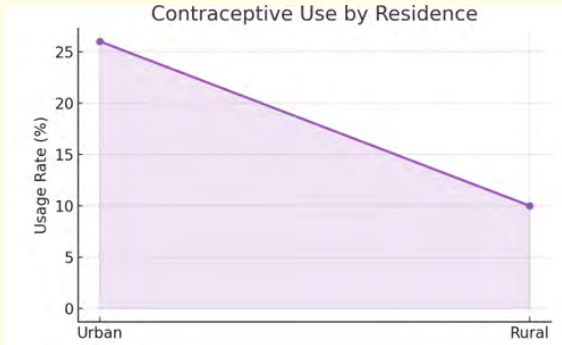


Figure 4: Contraceptive use by residence.
Source: NDHS (2018).

Discussion

Findings indicate that contraceptive uptake in Nigeria remains low despite moderate improvements since 1990.

Regional differences persist, with southern regions recording higher use compared to northern zones. Education emerged as a strong determinant of contraceptive adoption, as educated women possess greater awareness and decision-making autonomy. Economic and cultural barriers-including poverty, male opposition, and myths about infertility-continue to suppress uptake. Urban women benefit from better access to health services and information, accounting for the urban-rural divide. Addressing these barriers is essential for Nigeria to achieve its national target of 27% contraceptive prevalence.

Conclusion

Contraceptive use in Nigeria remains below optimal levels, with disparities across regions and social strata.

Education, economic empowerment, and male involvement are key determinants of uptake. Despite high awareness, practical use is hindered by cultural, economic, and systemic barriers.

Sustained policy efforts and community-based interventions are necessary to improve access and utilization.

Recommendations

1. Intensify nationwide family planning education and advocacy.
2. Involve men in reproductive health decisions through targeted programs.
3. Expand rural family planning services and ensure constant contraceptive supply.
4. Provide free or subsidized contraceptives to low-income women.
5. Integrate reproductive health education into secondary and tertiary curricula.
6. Strengthen policy implementation and community engagement to reduce stigma.

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Competing Interests

The authors declare no conflicts of interest.

Ethics Approval and Consent to Participate

Ethical approval was not applicable.

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