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Uptake of modern and traditional contraceptive methods in Nigeria: Lessons from a nationwide initiative on programming for results (2015-2018)

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Abstract

In general, family planning uptake promotes healthy living among couples and their children, in addition to aiding national development. This study was a secondary analysis of data collected from two nationally representative data - 2015 and 2018 National Nutrition and Health Surveys (NNHS) - aimed at measuring the uptake of modern and traditional contraceptive methods among women of reproductive age in Nigeria. The data were analysed by presenting differentials in prevalence of modern and traditional contraceptives between 2015 and 2018. The results showed that during the periods modern contraceptive uptake in Nigeria ranged between 10% and 17%. By contrast, the prevalence of the traditional methods was 8.3% and 10.0%. Within four years (2015-2018), the average national modern contraceptive uptake among women increased by 7%, while the traditional contraceptive uptake reduced by 2%. The uptake of both modern and traditional contraceptive methods varied by ages group of women, geo-political regions, and State of residence. We conclude that the uptake of modern contraception is below expectation in all regions in Nigeria. The uptake is worse in the northern regions as compared to the southern regions. Government needs to invest more to increase access to and utilization of modern contraceptive methods. *(Afr J Reprod Health 2022; 26[11s]: 62-68).*

Keywords: Modern contraceptive methods, traditional contraceptive methods, family planning, Nigeria

Résumé

En général, l'adoption de la planification familiale favorise une vie saine chez les couples et leurs enfants, en plus de contribuer au développement national. Cette étude était une analyse secondaire des données recueillies à partir de deux données représentatives au niveau national - les enquêtes nationales sur la nutrition et la santé (NNHS) de 2015 et 2018 - visant à mesurer l'adoption des méthodes contraceptives modernes et traditionnelles chez les femmes en âge de procréer au Nigéria. Les données ont été analysées en présentant les différentiels de prévalence des contraceptifs modernes et traditionnels entre 2015 et 2018. Les résultats ont montré qu'au cours des périodes, l'utilisation des contraceptifs modernes au Nigeria variait entre 10 % et 17 %. En revanche, la prévalence des méthodes traditionnelles était de 8,3 % et 10,0 %. En quatre ans (2015-2018), l'utilisation nationale moyenne des contraceptifs modernes chez les femmes a augmenté de 7 %, tandis que l'utilisation des contraceptifs traditionnels a diminué de 2 %. L'adoption des méthodes contraceptives modernes et traditionnelles variait selon le groupe d'âge des femmes, les régions géopolitiques et l'État de résidence. Nous concluons que l'adoption de la contraception moderne est inférieure aux attentes dans toutes les régions du Nigeria. L'adoption est moins bonne dans les régions du nord que dans les régions du sud. Le gouvernement doit investir davantage pour accroître l'accès et l'utilisation des méthodes contraceptives modernes. *(Afr J Reprod Health 2022; 26[11s]: 62-68).*

Mots-clés: Méthodes contraceptives modernes, méthodes contraceptives traditionnelles, planification familiale, Nigeria

Introduction

Globally, contraceptive uptake is an important determinant of pregnancy and birth rates. However, the unmet need for contraception remains high in many developing countries. This inequity is largely responsible for the growing population, and is attributable to beliefs, and shortage of family planning services particularly in developing countries. In Africa, 24.2% of women of reproductive age have an unmet need for modern contraception[1]. Similarly, the study by Cleland *et al*[2] on the uptake of modern contraception in Africa showed that fertility is not

likely to decline at a sustained pace unless a large and growing number of couples are ready, willing, and able to use modern contraception. In many societies, resistance to modern contraception is common and takes the form of outright opposition due to religious or cultural reasons or fear of becoming sterile and other health concerns[3-4].

While the knowledge of family planning has significantly increased over the last decade, the uptake of family planning services has remained low, especially in sub-Saharan Africa[2]. Total fertility rates in sub-Saharan African countries remain critically high with an average of 5.5 children per woman of reproductive age in most African countries[5]. In Africa, contraceptive prevalence rate rose from 23.6% to 28.5%[1]. In Nigeria, for instance, according to the 2013 Nigerian Demographic Health Survey, about 85% of women and 95% of men reported knowing a contraceptive method, but just 15% were using it[5]. The gender difference in knowledge and uptake of contraception might reflect poor economic, cultural, and religious differences that shape health seeking behaviour in Nigeria. These factors cut across the country but most commonly, cultural and religious beliefs account for the worse indices recorded in the Northern region[5-7].

At the London Summit in 2012, Nigeria promised to achieve 36% Contraceptive Prevalence Rate (CPR) by 2020 and an annual CPR growth rate of 2%[8]. However, its CPR remains at 24.2% for all women and 27.6% for married women in 2018, while its unmet contraceptive need was 16.6%[9]. If Nigeria achieved its family planning 2020 commitment, over 20,000 mothers and over 100,000 of children would have been saved within the same period. Besides, by 2050, it would save about $2.2 billion in social costs if it achieves its annual CPR growth of 2%[9]. However, despite the commitment and substantial investment of the Nigerian government and major international donors in family planning service provision in Nigeria, modern contraceptive use remains low, especially in northern Nigeria[6].

About 10% of married women of reproductive age used modern methods in 2013, indicating that the contraceptive prevalence had not changed in Nigeria since 2003[5]. Besides, regional contraceptive prevalence estimates vary widely. According to the 2013 Nigerian Demographic and Health Survey, modern contraceptive prevalence varied between 2.7% and 12.4% in the northern zones compared to between 11.4% and 24.9% in the southern zones. Northern states like Yobe, Jigawa, and Sokoto, had modern contraceptive prevalence rates of 0.5, 0.6 and 0.7% respectively[5].

Some of the barriers associated with low uptake of contraceptives in developing countries include the lack of knowledge about family planning methods, low male involvement, type of community (remoteness of communities) poverty, illiteracy, poor co-ordination of family planning programmes, negative cultural and religious beliefs, fear of contraceptives side effects and associated treatment costs[10]. Similarly, Anyanwu *et al*[3] reported education to be a major determinant factor in the uptake of family planning. Literate women were more likely to use the modern methods, such as the use of condom, rhythm methods, pills, intrauterine contraceptive device (IUCD), while the non-literates relied on abstinence and prolonged breast-feeding.

In Nigeria, the low level of family planning uptake has been linked to factors that span demand and supply domains. The supply factors associated with low contraceptive use in Nigeria include method mix, providers' technical and interpersonal skills, provider bias, erratic supply of contraceptives, and types of health facility[11]. Among the demand factors that are associated with contraceptive use in Nigeria are sociodemographic and economic characteristics of women including age, parity, education, religion, types of marriage (monogamy vs. polygamy), urban vs. rural residence, and household wealth[4,12-15].

In addition, family planning providers restrict access to contraceptive methods based on motivation to protect their clients and follow perceived social norms, their observations about a client's personal characteristics, such as age, parity and marital status, and their desire to protect themselves from blame from negative effects of contraceptive use[11]. Nigeria's current CPR of 24.2% (provide the reference) showed that there is still a wide gap in knowledge of contraceptives. Only 15% of women aged between 15 and 49 years use contraception to limit and space their births. In the past decade, the Federal Government

of Nigeria invested in the promotion of family planning using several reproductive health platforms and programme including Saving One Million Lives (SOML), a World Bank supported loan facility to Nigeria to improve the quality of reproductive healthcare services since 2012[16]. SOML is a performance based programme that involve rewarding states that demonstrated verifiable improvement in key indicators of any of the six important pillars of maternal, newborn and child health[16]. This study was conceived to measure the impact of the renewed investment in family planning by assessing the prevalence and trends of modern and traditional contraceptive uptake among women of reproductive age in Nigeria.

Methods

This was a secondary data analysis of the 2015 and 2018 NNHS conducted in Nigeria to provide a benchmark for performance in the SOML-PforR intervention programme. The Saving One Million Lives Programme for Results (SOML PforR) is a maternal and child health initiative by the Government of Nigeria launched in 2015 and supported by the World Bank as an interventional response to the annual 900,000 deaths among children and mothers in the country[16-17]. These surveys shared the comparability of estimates from them. The sample design and selection of respondents were similar. The National Nutrition and Health Survey using Standardized Monitoring and Assessment of Relief and Transition (SMART) methods was designed as a cross-sectional household survey using a two-stage cluster sampling to provide results representative at the state level in 37 domains/states and 20 households in each clusters, which were also used by Multiple Cluster Indicator Surveys and Demographic and Health Survey, and thus allows for comparison of results[17]. The samples for the 2015 and 2018 NNHS were nationally representative and covered the entire population residing in dwelling units in the country. The survey used the national sample frame, which is a list of Enumeration Areas (EAs) prepared for the 2006 Population Census. Administratively, Nigeria is divided into 36 states and one Federal Capital Territory, 774 Local Government Areas (LGAs), and wards. In addition to these administrative units, during the 2006 population census, each locality was subdivided into census Enumeration Areas (EAs). The primary sampling unit (PSU), referred to as a cluster in this survey, is defined on the basis of EAs from the 2006 EA census frame. The detailed description of the survey including the procedure and data collection method has been published elsewhere[17].

A total of 24,985 women aged 15-49 years were assessed for their nutrition status and reproductive health including uptake of modern and traditional contraception using the NNNHS steering committee validated tool and protocol.

To address the objective of this paper, data on modern and traditional contraceptive prevalence were extracted from the survey reports. In this survey, modern contraceptive methods include female sterilisation, male sterilisation, the oral contraceptive pill, the intrauterine device (IUD), injectable, implants, male condoms, female condoms, the diaphragm, foam/jelly, the lactational amenorrhoea method (LAM), and emergency contraception. Traditional methods include the rhythm (periodic abstinence), withdrawal and also folk methods such as herbs. The prevalence of current use of modern and traditional contraceptive methods was presented in proportion. We then calculated the differences between the prevalence of current users of modern and traditional contraceptive methods and also demonstrated whether there is an increase or decrease in the uptake of either of the two broad contraceptive methods between 2015 and 2018. We presented the prevalence and differences in prevalence across geo-political regions, states, and the entire country in simple proportion.

Results

Modern contraceptive methods

Table 1 shows that the percentage of women using modern contraceptive increased by 69.6% between 2015 (10.2%) and 2018 (17.3%).

Although the percentage of contraceptive users was higher in age group 20-49 years than those aged 15-19 years, both age groups recorded

Table 1: Percentage of women aged 15-49 years using any modern contraceptive method according to age, region and state

Background characteristics	2015 NNHS	2018 NNHS	Difference: 2015-2018	% Difference
Nigeria	10.2	17.3	7.1	69.6
Age				
15-19	11	4.8	-6.2	-56.4
20-49	20.7	18.2	-2.5	-12.1
North Central				
Kwara	21.8	10.2	-11.6	-53.2
Plateau	23.6	14.7	-8.9	-37.7
Nassarawa	21.4	17.3	-4.1	-19.2
Niger	6.9	4.5	-2.4	-34.8
FCT	24.3	22.3	-2.0	-8.2
Kogi	9.9	14.7	4.8	48.5
Benue	11.4	29.4	18.0	157.9
North East				
Adamawa	22.8	5.4	-17.4	-76.3
Taraba	21.6	5.1	-16.5	-76.4
Bauchi	13.1	3.4	-9.7	-74.0
Gombe	14.7	5	-9.7	-66.0
Yobe	1.3	1.6	0.3	23.1
Borno	0.7	3.9	3.2	457.1
North West				
Jigawa	10.9	0.6	-10.3	-94.5
Katsina	13.5	4.6	-8.9	-65.9
Sokoto	15.4	6.1	-9.3	-60.4
Kaduna	24.0	12.8	-11.2	-46.7
Kebbi	11.9	7.2	-4.7	-39.5
Zamfara	9.3	6.1	-3.2	-34.4
Kano	10.0	7.7	-2.3	-23.0
South East				
Abia	34	16.8	-17.2	-50.6
Anambra	19.4	15.4	-4.0	-20.6
Imo	15.2	12.6	-2.6	-17.1
Enugu	17.9	28.1	10.2	57.0
Ebonyi	7.7	26.5	18.8	244.2
South South				
Edo	34.9	29.9	-5.0	-14.3
Akwa-Ibom	26.4	25.5	-0.9	-3.4
Cross-River	29.5	28.8	-0.7	-2.4
Rivers	20.3	27.4	7.1	35.0
Delta	19.7	28.4	8.7	44.2
Bayelsa	9.5	24.3	14.8	155.8
South West				
Ondo	30	23.9	-6.1	-20.3
Lagos	39	35.7	-3.3	-8.5
Ogun	39.5	36.4	-3.1	-7.8
Oyo	45.8	44.5	-1.3	-2.8
Ekiti	30.2	31.9	1.7	5.6
Osun	30.8	41.3	10.5	34.1

some decrease in contraceptive use between 2015 and 2018. Among the North-central states., improvement in modern contraceptive use was observed in only Kogi (48.5%) and Benue (157.9%). In the Northeast region, Borno State had the highest improvement, from 0.7 to 3.9%, while Adamawa recorded the greatest decline, from 22.8% to 5.4%. Decline was also observed in Taraba (-76.4%), Bauchi (-74.0%) and Gombe (-66.0%). None of the Northwestern states recorded any improvement in contraceptive use between 2015 and 2018. Among the five states in the

Table 2: Percentage of women aged 15-49 years using any traditional contraceptive method according to age, region and state

Background characteristics	2015 NNHS	2018 NNHS	Difference: 2014-2018	% Difference
Nigeria	10.2	8.3	-1.9	-18.6
Age				
15-19	2.8	0.9	-1.9	-67.9
20-49	10.6	8.8	-1.8	-17.0
North Central				
FCT	5.6	3.2	-2.4	-42.9
Benue	11.4	7.4	-4.0	-35.1
Niger	1.2	1.5	0.3	25.0
Plateau	1.3	3.2	1.9	146.2
Kwara	2.2	6.8	4.6	209.1
Kogi	1.3	6.2	4.9	376.9
Nasarawa	0.5	5.8	5.3	1060.0
North East				
Bauchi	1.2	0.6	-0.6	-50.0
Adamawa	4.8	3.3	-1.5	-31.3
Gombe	0.8	1.1	0.3	37.5
Taraba	0.8	2.8	2.0	250.0
Borno	0	0.4	0.4	
Yobe	0.2	-		
North West				
Kaduna	5.5	0.2	-5.3	-96.4
Jigawa	7.4	0.3	-7.1	-95.9
Zamfara	2	0.1	-1.9	-95.0
Kebbi	2	0.6	-1.4	-70.0
Sokoto	1.5	0.6	-0.9	-60.0
Katsina	2.4	2.2	-0.2	-8.3
Kano	1.8	2.4	0.6	33.3
South East				
Abia	35.2	24.6	-10.6	-30.1
Anambra	40.7	32.7	-8.0	-19.7
Ebonyi	17.1	14.6	-2.5	-14.6
Imo	35.2	30.6	-4.6	-13.1
Enugu	16.8	18.4	1.6	9.5
South South				
Edo	22.1	8.9	-13.2	-59.7
Bayelsa	22.8	15.5	-7.3	-32.0
Akwa-Ibom	19.1	13.9	-5.2	-27.2
Cross-River	17.8	15.1	-2.7	-15.2
Delta	17.5	17.2	-0.3	-1.7
Rivers	17.6	19.2	1.6	9.1
South West				
Ondo	19.1	1.4	-17.7	-92.7
Ekiti	14.4	7.0	-7.4	-51.4
Oyo	13.9	10.8	-3.1	-22.3
Lagos	21.7	20.5	-1.2	-5.5
Osun	14.6	14.5	-0.1	-0.7
Ogun	18.8	19	0.2	1.1

Southeast region, only Enugu and Ebonyi recorded 57.0% and 244.2% increases, respectively, in contraceptive use. Abia, Anambra and Imo recorded reduction in the level of contraceptive use. In the south, three states had reduced contraceptive use, while three states recorded some improvement. The three with improvements were Rivers (35.0%); Delta (44.2%) and Bayelsa (155.8%). Although southwest, had the highest level of contraceptive use at the two time points, only Osun State recorded an appreciable improvement between 2015 (30.8%) and 2013 (41.3%), translating into 34.1% increase. The performance of Ondo State followed a negative trend, decreasing by 20.3% over the same period.

Traditional contraceptive methods

As shown in Table 2, the percentage of women using traditional contraceptive methods in Nigeria dropped slightly from 10.2% to 8.3% in 2015 and 2018, respectively. In the Northcentral region, a similar downward pattern was observed in the FCT (-42.9%) and Benue State (-35.1%). By contrast, traditional contraceptive use increased in Plateau, Kwara, Kogi and Nasarawa States.

Data for the Northeast showed that Bauchi and Adamawa States recorded some decrease over the time, while Taraba State increased from 0.58% to 2.8%. With the exception of Kano State, which recorded an increase of 33.3% from 1.8 to 2.4, other states followed a downward pattern in use of traditional contraceptive method, with the greatest decline observed in Kaduna (5.5% to 0.2%) and Jigawa (7.4% to 0.3%). Except Enugu, all the Southeastern states showed varying magnitudes of reduction in traditional contraceptive use, ranging from -30.1%, in Abia, to -13.1%, in Imo State. A similar decline was observed across states from the South south. region, with the exception of Rivers State, where the percentage rose slightly by 9.0% from 17.6% in 2015 to 19.2% in 2018. Most of the states in the Southwest region experienced a decreasing trend in traditional contraceptive use. The exception was Ogun State, where the level remained virtually the same (2015 – 18.8%; 2018 – 19.0%).

Discussion

The findings from this study highlighted a general low uptake in modern and traditional family planning as less than one in five of women of reproductive age group are using modern or

traditional methods. Although the national average modern contraceptive uptake increased between the first and second NNHS surveys, most of the states recorded declines in prevalence of modern contraceptives. The observed differences in modern contraceptive uptake were also evident within the six geo-political regions of the country. About one in ten women in Nigeria were still using traditional methods of family planning to prevent unwanted pregnancy, and the majority of these women were in the South-South and South-East regions of the country.

The investment of the Federal Government of Nigeria on modern contraception from 2015 provided reassuring support for increased access to contraceptive commodities in the country. The investment included payment of counterpart funds for the purchase of commodities and supply chain logistics[18]. The observed national average seven-point digit increase in modern contraceptive suggests that Nigeria is retooling to be on the right track to achieve sustainable access to modern contraception. Much as there was noticeable improvement in the average national modern contraceptive, many states, particularly in the Northwest, Northeast, Northcentral, and Southeast still recorded declines in uptakes. It is plausible that the reduced uptake in the northern region might be due to the age-old reason of negative sociocultural taboos and misconception about modern contraception. For example, some women declined using family planning methods because of their religious belief and fear of their side effects, including childlessness[4,19]. The poor uptake of modern methods in Nigeria has also been associated with hidden cost at the point of service delivery to clients; these include cost of consumable items, storage and logistics to transfer commodities from the store to service area[20]. Although use of traditional methods, considered as inefficient methods of family planning, is gradually declining among women, uptake of these methods is still flourishing in some states – Nasarawa, Kogi, Kwara and Plateau –in Nigeria. Use of traditional contraceptive methods is often considered as an alternative by clients that do not have access to modern methods or due to fear of the side effects of or religious reasons regarding modern methods[21-22]. It will be interesting to explore other possible reasons for the increasing uptake on traditional methods, especially in the Northcentral states of Nigeria.

This analysis provided a global picture on both modern and traditional contraceptive uptakes in Nigeria and compared performance within and among the six geopolitical regions and each state. However, the interpretation of these results is limited by the following reasons. First, there was no information on other characteristics of women that were interviewed, which could potentially influence decision for contraceptive methods uptake. Some of these characteristics include marital status, income and religious belief. Second, it is insufficient to adduce a single reason for the observed difference in both modern and traditional contraceptive uptakes in the two surveys that were analysed. The renewed commitment of the Federal Government of Nigeria to scale up family planning uptake by collaborating several local and international organizations would also need to be explored to ascertain the effect of these investments on the overall family planning uptake[18].

In conclusion, there is still a high unmet need of modern contraception among women of reproductive age group in Nigeria. A significant number of these women used traditional methods that are considered relatively inefficient to prevent unwanted pregnancy and sexually transmitted infections. Government at all levels need to redouble their efforts to promote universal access to modern contraception and demystify barriers that limit their uptake.

Ethical consideration

This analysis used secondary data from NNHS, there was no need to secure another ethical approval. The two original surveys were given ethical approval by the National Ethical Review Committee, Abuja.

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