

Economic recession and family planning uptake: Review of a Nigerian health institution

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ABSTRACT

Introduction: Family planning has been considered a “best buy” among health investments in terms of improving healthier and more economically stable societies. Uptake has, however, remained low in sub-Saharan Africa. This study assessed a 5-year trend in contraceptives uptake at the family planning clinic of a Southwest tertiary health institution in Nigeria during an economic recession.

Materials and Methods: This was a 5-year retrospective review of 2552 hospital records for family planning clients at the Lagos State University Teaching Hospital from 15 August 2011 to 31 August 2016 compiled from the clinic register quantitatively. Data entry and analysis were conducted using SPSS version 20.0. A test of significance was used to determine association between variables and level of significance set at $P < 0.05$. Ethical approval was sought from the hospital authorities before commencement of the study.

Results: The highest proportion of new acceptors of contraceptives was in the year 2013 (24.8%) followed by a gradual decline. Unemployment rate among the respondents was 8.5%. Despite a distinct preference for some long-acting reversible contraceptives (LARCs), namely, intrauterine contraceptive device (45.0%), followed by implants (43.3%), there was significantly less preference for hormonal LARCs such as implants with increasing age.

Conclusion: The study findings are counter-cyclical, in that economic recession seemed to reduce contraceptive usage with a potential of increasing fertility in Lagos, Nigeria, which could result in further increase in population size and its sequelae. Multidimensional efforts are required to improve contraceptive coverage to reduce the already overstrained resources.

Key words: Contraceptive; economic recession; family planning; Lagos.

Introduction

Family planning is a fundamental component of maternal health as its uptake is a significant factor in the reduction of maternal mortality and ensuring positive child health outcomes.^[1] An estimated 80 million women have unintended pregnancies annually and 45 million will end up having abortions on a worldwide basis.^[2] In addition, every year, approximately 70,000 women die from complications of unsafe abortions all over the world. Unsafe abortion being one of the leading causes of maternal deaths in the

developing world as it is sometimes used as a form of birth control.^[3]

Globally, contraceptive uptake has been known to be an important determinant of pregnancy and birth rates. In Africa, less than 30% of women use some form of contraception, and about 1 in 26 women of reproductive age die from a maternal

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cause compared to 1 in 9400 in Europe.^[4] Unintended pregnancy has been known to have adverse effects on the health and well-being of women and children as well as bear economic burden on families and societies. For instance, about 85% of couples will have a pregnancy within 1 year if they do not use any form of contraception.^[5]

In addition, worldwide, contraceptive use has risen from 54% to 63% in 1990 and 2007, respectively. The proportion of married women age 15–49 years reported as using any method of contraception increased minimally between 1990 and 2007 from 17% to 28% in Africa, 57% to 67% in Asia, and 62% to 72% in Latin America and the Caribbean countries, with significant variation among countries in these regions.^[6] The cross-cutting contribution to the achievement of the sustainable development goals justifies a greater investment in family planning.^[7,8] According to the Nigerian Demographic Health Survey 2008, contraceptive prevalence rate was 10%.^[9] As a result, there are many unintended pregnancies and illegal abortions contributing to a high maternal mortality ratio which appears to indicate a large unmet need for contraceptive use.^[10]

Contraception is the ideal preventive care service offering men and women the means to plan the timing of child birth. It is a cost-effective public health measure increasingly being used in many parts of the world, particularly in Asia and Latin America. Uptake, however, remains low in sub-Saharan Africa.^[11]

Recently, the International Monetary Fund and the Central Bank of Nigeria agreed that the Nigerian economy is in recession after contracting for two consecutive quarters in 2016.^[12] The National Bureau of Economic Research defines a recession as “a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real gross domestic product (GDP), real income, employment, industrial production and wholesale-retail sales.”^[13] In a recession, the rate of unemployment increases, businesses cease to expand, and cost of living rises.^[14]

Robust family planning results in healthier, more economically stable families, communities, and nations. It has been proven that every dollar spent on family planning can result in up to \$31 savings in health care, water, education, housing, and other costs.^[15] In today’s financially strapped environment, family planning is even more important and has been long considered a “best buy” among health investments. Family planning offers a safe, effective, and affordable way to reduce maternal and child morbidity and mortality as well as a

cost-effective means of reducing government expenditure on reproductive and child health problems.^[16]

Lagos state is the most populous state and economic hub of Nigeria. With many children, families are more likely to tend toward poverty and remain so compared to families with fewer children.^[17] In addition, children from large families are usually less nourished and less educated than those from smaller families.^[18,19]

This study was conceptualized to determine a 5-year trend in contraceptives uptake at the family planning clinic of the Lagos State University Teaching Hospital (LASUTH), Southwest, Nigeria, given the recent economic recession in the country. This institution is the state-funded tertiary health organization which serves as a referral point for primary and secondary state-owned government health establishments and private hospitals in Lagos and neighboring states in the country. Lagos state is also the main economic hub of Nigeria.

Materials and Methods

Study location

The study was carried out at the family planning clinic of the LASUTH, Ikeja, Lagos. Lagos state is located in the Southwestern part of Nigeria. It lies approximately on longitude 20° 42'E and 30° 22'E and between latitude 60° 22'N and 60° 42'N, respectively. Lagos state, although the smallest state geographically in Nigeria, has the highest population and can be considered the commercial capital of the country. Presently, it has a population of over 21 million.^[20,21]

There are 276 primary health care centers, 25 state general hospitals, 1 state tertiary hospital distributed across the 20 LGAs in Lagos state. In addition, there are three federal tertiary health centers and several privately owned health facilities in the state.^[21]

LASUTH is the only tertiary hospital owned by the government of Lagos state. The family planning clinic opening hours are between 8 am and 4 pm from Mondays to Fridays. Most methods of contraception, reproductive screening, and counseling services are provided at the clinic.

This was a 5-year retrospective review of hospital records of the family planning clients at the teaching hospital conducted in September 2017. A total of 2552 records of all new acceptors who had attended the family planning clinic over a 5-year period from 15 August 2011 to 31 August 2016 were compiled from the clinic register quantitatively.

Information retrieved from the records includes year of contraceptive uptake, sociodemographic data such as age and occupation, state of origin, and choice of contraceptive method.

Data entry and analysis were conducted using SPSS version 20.0 and data were presented as tables and charts. Chi-square was used to test for association between variables and level of significance set at $P < 0.05$. Approval was sought from the hospital authorities of LASUTH before commencement of the study. Furthermore, identifiers were not used in recording subjects' information.

Results

The highest proportion of new acceptors of contraceptives was in the year 2013 (24.8%). A gradual decline was observed thereafter. The distribution of the proportion of new family planning clients over the 5-year timespan during which data were collected is relatively symmetrical [Table 1].

Over half of the clients ($n = 1441$, 56.5%) were within the age group of 31 and 40 years. The distribution of ages of new family planning clients is highly unimodal and symmetrical. The highest proportion (39.8%) of the respondents were self-employed, and 905 (35.5%) of the women reported being junior professionals. The unemployment rate among these respondents was 8.5%. Therefore, more than 89% ($n = 2272$) of the clients were engaged in some kind of economic activity [Table 2].

Table 3 shows that the most common method of contraceptive used was the intrauterine contraceptive device (IUCD; 45.0%), followed by implants (43.3%; in a combination of Jadelle 26.6% and Implanon 16.7%). The majority (61.7%) of new family planning clients were from Southwest Nigeria (Ogun, Osun, and Lagos states) [Figure 1].

A larger proportion of new family planning clients – roughly 60% – used IUCDs between years 2011 and 2013, than that of new clients from 2014 to 2016. Conversely, a much smaller proportion of new clients used implants from 2011 to 2013, than from 2014 to 2016. Between both time periods, almost no new clients (zero to two) used either of bilateral tubal ligation (BTL) or vasectomy [Figure 2].

During the 2011–2013 period, two clients from the 41–50 years age group had BTL, one client from the 31–40 years group reported that her spouse had done a vasectomy. From 2014 to 2016, another client from the 31–40 years group also reported spousal vasectomy. There was a statistically significant association between age and

Table 1: New clients over 5 years

Year	Frequency ($n=2552$)	Percentage
2011	82	3.2
2012	538	21.1
2013	633	24.8
2014	472	18.5
2015	485	19.0
2016	342	13.4

Table 2: Sociodemographic details of clients

	Frequency ($n=2552$)	Percentage
Age (years)		
<20	12	0.5
21-30	617	24.2
31-40	1441	56.5
41-50	448	17.5
≥ 51	34	1.3
Occupation		
Snr professional	253	9.9
Jnr professional	905	35.5
Self-employed	1015	39.8
Skilled	99	3.9
Student	63	2.5
Unemployed	217	8.5

Table 3: Distribution of contraceptives by method utilized

Method	Frequency ($n=2552$)	Percent
Non-acceptors	10	0.4
Vasectomy	1	0.04
BTL	2	0.1
Condom	40	1.6
OCP	60	2.3
Injectable	186	7.3
Implants	1104	43.3
IUCD	1149	45.0

OCPs, Oral contraceptive pills; BTL, Bilateral tubal ligation; IUCD, Intrauterine contraceptive device

utilization of temporary contraceptives ($P = 0.00$). There was a bell-shaped pattern across all methods. The frequency of contraceptive use increased reaching a peak between ages of 31 and 40, and it gradually decreased after [Table 4].

The professionals were the highest (45.5%) new acceptors followed by the self-employed (39.7%). The most popular methods among all occupational groups were implants and IUCDs. However, there was no statistically significant association between occupation of clients and contraceptive uptake ($P = 0.06$; Table 5).

Discussion

Unemployment trend in Nigeria has increased from 8% in the first quarter of 2014 to 14% in the last quarter of 2016 with

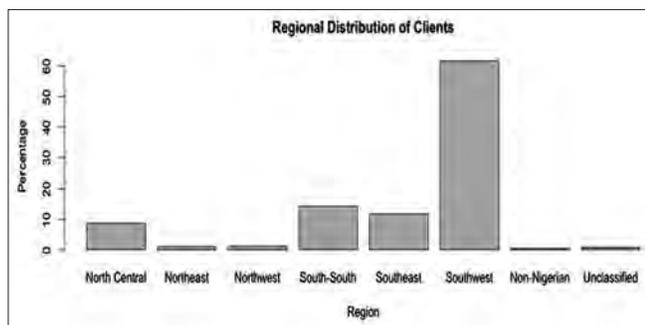


Figure 1: Contraceptive use by clients' geo-political origin

Table 4: Age group by choice of temporary contraceptive

Age (years)	Temporary method					Total (%)
	Injectables	IUCD	Implants	Condoms	OCPs	
≤30	38 (6.0)	206 (32.8)	343 (54.5)	11 (1.8)	31 (4.9)	629 (100.0)
31-40	105 (7.3)	636 (44.3)	645 (44.9)	21 (1.5)	29 (2.0)	1436 (100.0)
≥41-50	43 (9.1)	307 (64.8)	116 (24.5)	8 (1.7)	0 (0.0)	474 (100.0)
Total	186	1149	1104	40	60	2539 (100)

Chi-square=153, $P=0.00$. OCPs, Oral contraceptive pills; BTL, Bilateral tubal ligation; IUCD, Intrauterine contraceptive device

about half of the total population of the country within the labor force population estimated at 81.15 million who could be unemployed.^[22] The unemployment rate of 8.5% observed in this study aligned with the national range.

The population size in Lagos has been on the upward range from 10,781,000 to 14,234,000 in 2010 and 2017, respectively.^[23] In response to the population growth in Nigeria, the National Population Policy of Nigeria emphasizes the importance of effective and efficient use of contraception to achieve a reduction in total fertility rate (TFR) of 0.6 children per woman every 5 years; the current TFR being 5.7.^[24]

Quality family planning services bring a wide range of benefits to women, their families, and society. A woman's ability to choose if and when to become pregnant has a direct impact on her health and well-being by preventing pregnancy-related health risks.^[25]

The frequency of new acceptors of contraceptives in this study decreased from 24.8% (633) in 2013 to 13.4% (342) in 2016, and the decreasing trend of acceptance of contraceptives appeared to correspond directly with economic recession. This decline in the number of new acceptors of contraceptives may be due to less economic opportunities available for women that reduced the incentives for fertility decline through family planning services.^[26] One may posit that due to the economic recession, potential clients refrained from visiting the family planning clinic, instead devoting more time to obtaining employment or working longer hours.

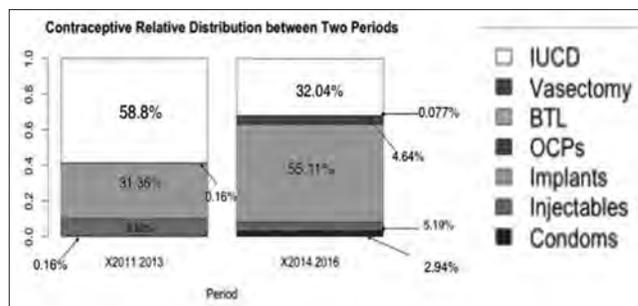


Figure 2: Contraceptive methods used over the 5-year period

Generally, the effects of economic recession can be viewed in the context of short-term and long-term consequences ranging from high unemployment, falling incomes, reduced economic activity, falling consumer confidence, and depressed consumer spending on various needs including healthcare services such as family planning commodities compared to a non-recessionary period.^[27]

It is frequently assumed that an economic downturn would result in increased acceptance of contraceptives leading to fertility decline. Nonetheless, fertility behavior during economic recession varies depending on factors such as gender, age, social class, and family size. In addition, various policies and individual fertility decisions may alter the relationship between recessions and fertility. In most countries however, recession has brought a decline in the number of births and fertility rates.^[28]

About 81% of new acceptors within the study period were between 21 and 40 years of age being the peak of active reproductive years for women. Family planning not only allows spacing of pregnancies but also delays pregnancies in young women at increased risk of health problems while also preventing pregnancies among older women who also face increased risk.^[29] With self-employment often comes more flexible schedules and control over time which may account for the greater proportion (40%) of respondents being self-employed.

The preponderant methods among the respondents were long-acting reversible contraceptive (LARC) methods such as implants (43.3%) and IUCDs (45.0%). There has been a general shift in clients' acceptance of LARCs due to proven efficacy, long-term cost-effectiveness, limited contraindications, and reversibility.^[30] The majority of new clients in our study were from the Southwest likely attributable to proximity in terms of geographical regions.

The opportunity cost of a hospital visit could be a lower wage brought about by lost labor. Despite the composite proportion using implants, further data disaggregation along

Table 5: Temporary contraceptive methods used by occupation over the 5-year period

Occupation	Implant	Injectable	IUCD	Condoms	OCPs	Total (%)
Professionals	510 (44.2)	82 (7.1)	517 (44.8)	19 (1.7)	25 (2.2)	1153 (100.0)
Self-employed	412 (40.9)	77 (7.7)	485 (48.2)	13 (1.3)	20 (2.0)	1007 (100.0)
Unemployed	96 (44.2)	16 (7.4)	94 (43.3)	4 (1.8)	7 (3.2)	217 (100.0)
Skilled/students	86 (53.1)	11 (6.8)	53 (32.7)	4 (2.5)	8 (4.9)	162 (100.0)
Total	1104	186	1149	40	60	2539

Chi-square=20.7, $P=0.06$. IUCD, Intrauterine contraceptive device; OCP, Oral contraceptive pill

two time periods (2011–2013 and 2014–2016) showed an increase in the proportion of new clients using condoms and oral contraceptive pills which are commodities that can be obtained easily at family planning clinics and do not require time-consuming procedures compared to implants and IUCDs. This increase is consistent with the notion that during an economic recession, individuals are keen on minimizing time spent outside of the labor force, or maximizing the time seeking employment.

Family planning needs and fertility behavior vary based on the age of clients during recession.^[31] Even though there was a preference for LARCs in all age groups and occupational groups, there was significantly less preference for hormonal LARCs such as implants with increasing age and greater inclination toward non-hormonal LARCs, namely, IUCDs which could be related to possible reservations about the safety of hormonal methods and side effects associated with hormones.^[32] Even though there has been a gradual decrease in fertility rate for Nigeria over the past decade, studies have also shown that recession has the potential of decreasing the number of births and fertility rates which could cause reduction in rising fertility rates.^[28,33] The new clients on contraceptives in this study increased from 2011 to 2013 and started to decrease from 2014 to 2016.

Conclusion

During the recession, it appears that the proportion of new clients taking advantage of birth control services generally decreased. However, clients preferred LARCs such as implants and IUCD, the most. The study findings can be described as counter-cyclical. In other words, economic recession could reduce contraceptive usage and that possibly increases fertility for families in Lagos, Nigeria, further increasing population and its sequelae which must be tackled using multisegmental and strategic approaches.

Study limitation and strengths

Additional information on the economic status of the clients and the standard of living would have increased the robustness of the study. However, the large sample size increases the power and precision of the study. Furthermore, considering the heterogeneous population in Lagos, higher

sample size will remove any clustering effect and cater for sampling variability.

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Conflicts of interest

There are no conflicts of interest.

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