



# EFFECT OF COVID-19 LOCKDOWN ON THE DEMAND FOR MODERN CONTRACEPTION AT THE UNIVERSITY OF CALABAR TEACHING HOSPITAL, CALABAR, NIGERIA

**Abeshi, Sylvester E; Forwah Jacques N; Chiegina O Godwin; Ina Margaret M**

Department of Obstetrics and Gynaecology  
University of Calabar, Nigeria

**Abstract:** The prevailing prevalence rate for contraceptive use in Nigeria is put at between 11%–15%. This rate however seems to be very low notwithstanding the high rate of sexual involvement and widespread awareness of various methods of contraception. Many couples are now desiring to have smaller family sizes due to economic challenges and most recently, the Covid-19 pandemic, which had a global socio-economic impact with job losses. There were lots of deaths and job losses during the lockdown, which the world has not witness since after the second world war, affecting families and global economy. This study aims to review the uptake or request for modern methods of contraceptives prior to and after the various phases of the global Covid-19 lockdown of 2020/21.

This was a retrospective study comparing data of clients who requested for family planning services from the family planning unit of the department of Obstetrics and Gynaecology of the University of Calabar teaching hospital. The folders or files of all the clients who used services in the unit from January 1<sup>st</sup>, 2019 to December 31<sup>st</sup>, 2022 was reviewed. The socio demographic profile of the clients were collated and analyzed using simple frequencies and percentages.

Over the 5year period of this study, 2018 to 2022, a total of 2,940 clients received various forms of contraceptives. Oral contraceptive pills were given to 387 clients, (13.2%), Implanon 929(31.6%), injectables 250(8.5%), jadelle 486(16.5%), IUCD 329(11.2%), condoms 467(15.9%), bilateral tubal ligation (BTL) 92(3.1%). BTL was the least demanded 92(3.1%) over the 5year period, while the long acting Implanon 929(31.6%) was the most demanded.

It was noted in this study that previously held myths about contraceptives were no longer as strong as was initially conceived. The men however, have not been forthcoming on issues of contraception. Not a single case of vasectomy was record of the 5year review period. From this study contraceptive uptake rate dropped significantly in 2020 and 2021; 420 and 440, respectively. This drop could not have been unconnected with the Covid-19 lock down following the Covid-19 pandemic. Thereafter there was a gradual increase in uptake starting from 2022

**Index Terms -** contraceptive request, Covid-19 lockdown, Cross River, Nigeria

## INTRODUCTION

Planning the size of a family by the couple is very central to the overall benefit of every member of the family, including the children, parents and even the extended dependents. This planning has to do principally on determining the number of children the couple can sustained based on their income and financial resources. The quality of life every member of the family enjoys is centered on family planning. The quality of education, quality of health, career advancement, wellbeing and upkeep of the children, community services, are all determined by the economic status of the family. Poor socio-economic status and large family size will result in inability of members of that family to achieve their full potentials because of economic constraints, since the little available resources has to be shared among a greater number of persons. The number of out of school children, increasing maternal and infant morbidity and mortality are all products of ignorance, unemployment, lack of education, poverty, and other vices that can be corrected by having a small family size, especially due to the prevailing economic circumstances of our times.

Reduction of maternal deaths by 75% before 2015 was a cardinal goal in the millennium development goals [1,2]. It is however pertinent that these goals have not been realized by many developing nations because of their poor budgetary allocations to the health sector. Most governments in Africa and other developing countries allocate a greater percentage of their annual budgets to military defense and cost of governance. Very little of the budgetary provision is made for health, education, agriculture, infrastructural development and job creations. Hence a lot of children cannot be sent to school, poverty levels are alarming, maternal and infant mortality indices are skyrocketing, human dignity is being debased on a daily basis.

The unemployment rates in the developing countries and the world was worsened by the covid-19 pandemic and subsequent lockdown of the economy of almost all countries of the world in 2020. Notwithstanding all the challenges confronting humanity, people still desire to get into relationships that will ultimately lead to marriage with subsequent birth of children either in wedlock or out of it. The population of the family will continue to increase, thereby affecting all the indices for growth and development of the family, community and the nation.

Contraception plays a critical role in controlling unwanted pregnancies, fertility rate, population growth rate and maternal mortality rate which have been shown to be associated with each other [3]. Nigeria has a low contraceptive prevalence rate (15%) and a high (16%) unmet need for contraception [4,5]. She has a high total fertility rate (5.5%) and a high population growth rate (2.6%) [6,7]. Nigeria is rated the fourth (4th) highest maternal mortality country in the world, with an estimated 814 deaths per 100,000 live births [6,8].

The world bank data pinpoints the percentage of unemployed Nigerians with advanced education at 13.69% in 2016 and 15.3% in 2019. This is worrisome as it translates to a bulging youthful, energetic unemployed population with no contribution to the economic growth of the country [12]. Unemployment rate in Nigeria increased to 33.30% in the fourth quarter of 2020 from 27.10% in the second quarter (Q2) of 2020 [13]. These figures are definitely higher when the rate for 2021 and that of first quarter (Q1) of 2022 are released. Contraceptives interact with the other factors by preventing women from having unplanned pregnancies and subsequently dying from pregnancy-related causes. It has also been known to improve the educational and economic status; especially that of girls and women [8,9].

There is a wide range of contraceptive methods available which include the traditional or folk methods, barrier methods, Intrauterine Contraceptive Devices (IUCDs), hormonal methods, emergency contraception and sterilization. The choice of contraceptive is mostly influenced by the education, poverty, awareness, ignorance, culture, religion, myth about the method, availability, cost and side effects of the type of contraception [10,11]. Many women in Nigeria still have an unmet need for contraceptive irrespective of the growing awareness of the various forms of contraceptives. Currently issues concerning contraceptive and family planning are treated with a lot of emphasis and this necessitated the creation of a consultant manned unit with other trained medical personnel to oversee the activities during antenatal clinics and post-natal visits. Covid-19 came with much skepticism and fear and the vaccine was received the same way.

According to Reuters, Nigeria has administered at least 27,583,270 doses of Covid vaccines so far. As of December 2021, BBC reported that only 3% of Nigerians have been vaccinated, in a population of well over 200 million persons. Getting the vaccines initially was one of the major issues but it is now readily available in most Primary health centers (PHC) and some selected private hospital and clinics today in Nigeria. The issue with Covid-19 vaccination in Nigeria and some other countries, however still remains vaccine acceptance. There are lots of controversies surrounding the production of the Covid vaccine and till date its acceptance

remains a major public health concern among the vaccinated and those yet to be vaccinated. The long term effect of Covid-19 infection or Covid-19 vaccine on pregnancy and breastfeeding has not been fully established. There are also lots of concern about the effect of the Covid-19 vaccine on the genome and future fertility. These concerns directly or indirectly influence the overall contraceptive uptake. Fear of the unknown can greatly influence certain decisions we make concerning our health and wellbeing now or in the future.

## METHODOLOGY

There are various forms of modern methods of contraception. The choice of contraceptive administered depends on the client's past medical history, experience with other forms of contraceptives, future fertility desires, side effects and other contraindication for use, after overcoming concerns about taboos, religious believes and myths about modern contraceptives. Adequate counselling and informed consent is very essential before administering any method. In some cases, especially in bilateral tubal ligation (BTL), the provider may require the consent of the husband to safeguard against future litigation. This was a retrospective study on request for modern methods of contraceptives at the family planning unit of the University of Calabar teaching hospital, Nigeria. The case note of all the clients that received services in that facility in 2018,2019, 2020 and 2021 were retrieved. These were the immediate acute phase of the pre and post Covid-19 era. The client's age, parity, educational status, occupation and type of contraceptive requested were obtained from their folders or files and analyzed in frequencies and percentages over the duration of study. The results obtained were presented in form of tables and figures.

## RESULTS

Table 1 Summary of contraceptive use over 5year review

METHODS	2018	2019	2020	2021	2022	TOTAL
PILLS	105(13.6%)	101(13.7%)	61(14.5%)	55(12.5%)	65(11.4%)	387(13.2%)
IMPLANON	244(31.7%)	238(32.2%)	131(31.2%)	152(34.5%)	164(28.7%)	929(31.6%)
INJECTABLES	58(7.6%)	56(7.6%)	37(8.8%)	48(10.9%)	51(8.9%)	250(8.5%)
JADELLE	152(19.7%)	146(19.8%)	69(16.4%)	69(15.7%)	50(8.8%)	486(16.5%)
IUCD	85(11.1%)	77(10.4%)	40(9.5%)	24(5.5%)	103(18.1%)	329(11.2%)
CONDONS	112(14.5%)	105(14.2%)	61(14.6%)	74(16.8%)	115(20.1%)	467(15.9%)
BTL	14(1.8%)	16(2.1%)	21(5.0%)	18(4.1%)	23(4.0%)	92(3.1%)
	<b>770</b>	<b>739</b>	<b>420</b>	<b>440</b>	<b>571</b>	<b>2940(100%)</b>

Table 1 shows the distribution and request of the various forms of modern contraceptives. Implanon which has a longer duration of action. 31.6% of the clients preferred this method.

Table 11 Age range of clients using various contraceptives

AGES (YEARS)	2018	2019	2020	2021	2022	TOTAL
< 20	65	69	42	38	52	266(9.0%)

<b>21-29</b>	170	156	88	90	114	618(21.0%)
<b>30-39</b>	226	214	112	118	140	810(27.6%)
<b>40-49</b>	206	202	98	106	148	760(25.9%)
<b>&gt;50</b>	103	98	80	88	117	486(16.5%)
	<b>770</b>	<b>739</b>	<b>420</b>	<b>440</b>	<b>571</b>	<b>2940</b>

Table 11 show the distribution of women requesting for contraception during the period under review. Women of age group 30-39(27.6%) were the group with most request followed by 40-49years (25.9%). These are mostly women pursuing education or career progression.

Table 111-Educational status

<b>Level Attained</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>TOTAL</b>
<b>None</b>	42	38	30	28	46	184(6.3%)
<b>Primary</b>	128	122	108	114	134	606(20.6%)
<b>Secondary</b>	420	412	126	142	185	1285(43.7%)
<b>Tertiary</b>	120	115	98	138	152	623(21.2%)
<b>Postgraduate</b>	60	52	58	18	54	242(8.2%)
	<b>770</b>	<b>739</b>	<b>420</b>	<b>440</b>	<b>571</b>	<b>2940(100%)</b>

Table 111 shows the educational profile of the clients. Those with secondary education form the majority of those requesting for contraception. A good number of these are undergraduates and those pursuing various forms of career advancement.

Table iv- Parity of the Clients

<b>Parity</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>TOTAL</b>
<b>Nulliparous</b>	125	120	130	128	138	641(21.8%)
<b>1-2</b>	158	148	88	84	149	627(21.3%)
<b>3-4</b>	178	148	122	118	146	712(24.2%)
<b>5-6</b>	268	286	64	74	96	788(26.8%)
<b>&gt;6</b>	41	37	16	36	42	172(5.9%)
	<b>770</b>	<b>739</b>	<b>420</b>	<b>440</b>	<b>571</b>	<b>2940(100%)</b>

Table 1V women with 5 or more children form the majority of clients requesting for modern contraception 32.7%.

Table V- Occupation of clients

<b>Occupation</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>TOTAL</b>
Unemployed	154	168	122	110	132	686(23.3%)
Farming	64	72	58	68	75	337(11.5%)
Teaching	215	202	124	102	142	785(26.7%)
Civil servant	248	226	88	98	144	804(27.3%)
Business	89	71	28	42	98	328(11.2%)
	<b>770</b>	<b>739</b>	<b>420</b>	<b>420</b>	<b>591</b>	<b>2940 (100%)</b>

## DISCUSSIONS

Married women, especially those who have completed their family size, on the other hand, are more desirous in seeking contraception including bilateral tubal ligation, a method that was previously considered a taboo based on tradition, cultural and religious grounds. The most demanded form of contraceptives requested for and dispensed over the 5year period under review was



Implanon, 929(31.6%), followed by jadelle, 486(16.5%). The least method requested and utilized was bilateral tubal ligation 92(3.1%), followed by injectables 250(8.5%). Not even a single vasectomy was requested for or done over the five-year period. African men generally object to vasectomy with the excuse that it is the women who become pregnant and not them. Hence the women are the ones who need contraception. Table I shows a summary of the various forms of contraception offered in this facility and the uptake distribution. Implanon is a modern hormonal contraceptive with a long-acting and reversible effect. It is effective for up to 3 years and can be given during breastfeeding, thus preventing early pregnancy in about 99% of breastfeeding mothers. Most women will want to resume sexual intercourse early while still breastfeeding and will thus require a method of contraceptive that is compatible with breastfeeding. Implanon and jadelle meets this criteria, hence it's high demand. Jadelle is Levonorgestrel implants which may be used alone or with other medications to prevent pregnancy. It is effective for up to 5years. Jadelle is a set of two flexible cylindrical implants; consisting of a dimethyl siloxane/methylvinylsiloxane copolymer core enclosed in thin-walled silicone tubing. Each implant contains 75mg of the progestin, Levonorgestrel. Each rod is approximately 2.5mm in diameter and 43mm in length. The implants are inserted in a superficial plane beneath the skin of the upper arm. Jadelle does not contain estrogen and hence can be given to breastfeeding clients. Table ii shows the age ranges of contraceptive clients in this facility. The majority of clients were in the age range of 30-39years 810(27.0%), followed by 40-49years 760(25.9%). Clients in these age ranges were either pursuing a career in school, professional advancement, or had completed their family sizes.

Level of education plays a contributory role in decision making on contraceptive usage. Those with no form of formal education or elementary or primary level of education consisted of 790(26.9%), while those with secondary education only accounted for 1235 or 43.7% of the clients. Contraceptive uptake is noted mostly by clients of high parity. Those with 3-6 deliveries constituted the majority 1500(51.0%). Table iv shows contraceptive uptake for nulliparous clients and others. In respect to occupational status, the teachers and civil/public servants constitute the majority of contraceptive users, making up 1589 or 54.0%, while the least request was from those engage in various form of businesses. Table v shows the occupational profile of the clients.

On a year in year out basis, (table 1), contraceptive request was highest in 2018, 770(26.2%), this began to drop in 2019 and in 2020 when there was lockdown, the uptake was lowest, 420 (14.3%), due primarily to the lockdown since many clients who would have requested the services of family planning providers were not allowed to leave their homes since it was not an emergency.

From 2021 and 2022, the demand for contraceptive began to improve gradually, rising to 440(15%) in 2021 to 571(19.4%) in 2022.

## CONCLUSIONS

Contraceptives in whatever form is aimed at preventing unwanted pregnancy. The success or failure of the method depends on the efficacy of the product and its proper usage. Most women would have loved to control their family size but are undecided on the method of choice because of the myths about contraceptives, hence the unmet needs. Permanent methods of contraceptives which are irreversible were the least requested method as was noted in this study. Only 92(3.1%) out of the 2940 clients over the 5year period requested for bilateral tubal ligation (BTL). This method was mostly carried out on women who have had multiple caesarean sections.

Some clients reject BTL because of the regrets associated with the method and the irreversibility of the procedure. It is however noted that with proper counselling and enlightenment, most clients will readily accept most methods of contraceptives. Disruptions in the way life of the populace can have adverse effect on the request for contraceptives and other services. Women in internally displaced camps, for example, may suffer the need for contraceptive services unless this service is taken. Restriction of movement of persons as was seen during the Covid-19 lockdown showed some reduction in uptake. This reduction was not massive because in Calabar the lockdown was partial (see table 1).

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