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Pattern of Utilisation of Family Planning Services Among Women of Reproductive Age Attending Comprehensive Health Centre, Oba-Ile, Akure, Ondo State Nigeria

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ABSTRACT: Family planning (FP) allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility. A woman's ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy; thereby, promoting the health and welfare of family groups and effectively contributing to the social development of a country. The study was conducted to determine the pattern of utilization of family planning services among women of reproductive age attending the Comprehensive Health Centre, Oba-Ile, Akure, Nigeria. A sequential mixed method explanatory research approach was adopted for the study, with an initial retrospective quantitative data collection from clients' records for the 5-year period (2016-2020); followed by a qualitative data collection using in-depth interview of key informants to provide further explanation on the key findings from the quantitative phase. The findings revealed that of the randomly selected 317 records, majority 147(46.4%) of the women were aged 21-30 years and the mean age was 30.48 years; 302 (95%) of them were married; and they all had formal education; although, only 43(13.56%) had tertiary education. Over two-thirds of them 253 (79.8%) were employed; while, 30(9.46%) were students and 34(10.72%) were either unemployed or full housewife. Those with Parity 1-3 were 212(66.9%), and only 4 (1.3%) had 7-10 children; while, the mean parity was 3. The total number of women utilizing family planning services in the facility annually, increased from 132 in 2016 to 713 in 2020. The sample did not reveal any quarterly pattern of utilization of the services by the women. The study also showed that majority (37.9%) of the women used the Jadelle method of family planning, followed by Implanon (30.9%); and majority of the clients did not change

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their choices (57.1%). The qualitative data revealed the need for sustained presence of family planning providers and continued support from development partners; as the drop in 2017 was reportedly due to lack of a provider, while the consistently improved attendance thereafter was attributed to the collaboration with development partners.

KEYWORDS: pattern, utilization, family planning, women, reproductive age, comprehensive health centre

INTRODUCTION

Family planning (FP) allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility. A woman's ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy (World Health Organization - [Inter-agency Working Group on Reproductive Health in Crises], 2010). Family planning therefore promotes the health and welfare of family groups and contributes to the social development of a country. In addition to preventing pregnancy-related health risks, family planning also provides non-health benefits; such as, educational and social empowerment opportunities for women, and good economic and population growth for the nation (World Health Organization, 2023).

In 2021, it was estimated that 1.9 billion women were of reproductive age group (15–49 years) worldwide, and 1.1 billion of them had need for family planning; while, 874 million were using modern contraceptive methods, 164 million had an unmet need for contraception (World Health Organization, 2023). According to the World Health Organization (2023), the percentage of the need for family planning met by modern methods was estimated at 77% in 2022, indicating a meagre 10% increase from 67% since 1990 but stagnated globally at around 77% from 2015 to 2022, although it increased from 52% to 58% in sub-Saharan Africa where Nigeria is. It was further revealed that in 2022, global contraceptive prevalence of any method was estimated at 65% and of modern methods at 58.7% for married women or those in a union; while, the number of women desiring to use family planning also increased from 900 million in 2000 to nearly 1.1 billion in 2021 (World Health Organization, 2023).

Women mostly use contraception to prevent unintended pregnancies (Gbenga-Epebinu, et al., 2020). For married or cohabiting women between the ages of 15 and 49, evaluation of family planning services is routine; indicators of quality include contraceptive use and the contraceptive prevalence rate (Park, 2015). According to the 2017 World Population Day report, "Family Planning: Empowering people, Developing Nations," approximately 59 million relied on traditional methods of family planning due to limited access to information/services and a lack of support from their partners/communities. World Population Day (WPD) (2017) reports that 39% of all women without access to family planning live in Africa or South Asia. Unwanted pregnancies accounted for around 45 percent of all births worldwide between 2010

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and 2014, but despite the benefits of family planning, it is estimated that about 190 million women of reproductive age did not use any form of contraception in 2019 (Ameyaw et al., 2019). "Contraceptive use" refers to a person's deliberate decision to use one or more forms of birth control to achieve the desired number of children or the desired spacing between children. Indicators of the prevalence of contraceptive use in a country include the percentage of the population that is aware of its availability, as well as the percentage of women who actually use it to delay or avoid pregnancy (Gbenga-Epebinu, & Ogunrinde 2020). According to Singh et al. (2017), 1.2 million fewer infant deaths would have occurred if contraceptives had been used successfully, preventing 5 million unwanted births. Studies in Sub-Saharan Africa reported low rates of contraceptive use; as noted by Solanke (2017), some of the numerous reasons for this are women's misconceptions about contraceptive use, the use of unproven concoctions, religious views, and marital rejection. Women with an unmet need for family planning include those who are neither pregnant nor postpartum amenorrheic but who are fecund and who want to delay their next birth for two years or more, or who want to stop childbearing altogether but are not using a contraceptive method. It also includes those who are in the midst of a mistimed or unwanted pregnancy, who are postpartum amenorrheic but whose most recent birth was mistimed or unwanted (NPC & ICF, 2019). The Nigeria Demographic and Health Survey (NDHS) 2018 further revealed that the percentage of married women who use some kind of contraception increased from 29% in 1996 to 57%; while, the percentage of women using modern methods of contraception rose from 26% in 1996 to 44% in 2006. The data however showed that only about 24.4% of married couples in the south-west use modern methods of contraception (NPC & ICF, 2019). More recent data showed that in Nigeria, 86.6% of married or cohabiting women do not use any form of contraception to avoid having children; the rate of married women who did not use any kind of contraception to space their children was highest in Ebonyi state at 97.0 percent and lowest in Oyo state at 65.7 percent (Emmanuel, et al., 2020).

The main objective of the study was to assess the pattern of utilization of family planning services among women of reproductive age attending Comprehensive Health Centre, Oba-Ile; and, the possible factors related to the observed pattern. Specifically, the types of family planning services utilized and the characteristics of the women were assessed. The only research hypothesis raised was that there is no significant relationship between the age of the women and their pattern of utilization of family planning services.

METHODS

A sequential mixed method explanatory research approach was adopted for the study, with an initial retrospective quantitative data collection from clients' records for the 5-year period (2016-2020); followed by qualitative data collection, using in-depth interview of key informants to provide further explanation on the key findings from the quantitative phase. The target population for this study was women of reproductive age (15-49 years) attending the Comprehensive Health Centre, Oba-Ile, Akure, South West Nigeria. Using Taro Yamane

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formula, 317 family planning clients were selected out of the 1528 who attended the clinic in the 5-year period (Table 1). Multistage sampling technique was used. The five years were stratified according to the quarters in each year. Months of the year were randomly selected from each quarter; and the same randomly selected months were selected in each of the 5 years in view of the possibility of seasonal variations acting as a confounding variable. Proportional sampling was carried out to determine the number of participants from each month (March, June, September, December) in each year. Systematic random sampling was adopted to select every second client card in each selected month.

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
2016	13	8	7	8	13	2	5	9	24	9	8	26	132
2017	11	2	6	7	8	1	5	3	7	12	16	10	88
2018	9	13	13	14	46	12	24	44	41	9	17	11	253
2019	26	7	7	10	17	13	14	28	54	86	46	34	342
2020	57	55	40	111	93	101	41	35	58	39	45	38	713
Total	116	85	73	150	177	129	89	119	184	155	132	119	1528

 Table 1: Monthly Family Planning Clinic Attendance 2016-2020

Total=1528

At the quantitative phase, a structured self-developed checklist was used for gathering data from the family planning records of the selected 317 clients in the 5 years covered by the study. The information collected were age, religion, marital status, occupation, educational level, parity, family planning method utilized and method changed. The face and content validity of the instrument was ascertained by experts in test and measurement and by family planning providers' educator. Data was collected with the aid of record officers and two student midwives who were trained as research assistants. At the qualitative phase, customized interview guide specifically on the findings during the quantitative phase was used to interview 3 key informants. The three key informants consisted of a field supervisor and two social marketers attached to the Family Planning Unit at the Primary Health Care Agency. The quantitative data from the records was analyzed using Statistical Package for Social Sciences (SPSS); while, simple content analysis was used to analyze the qualitative data.

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RESULTS

Variable	Description	Frequency	Percentage (%)
	11.00.37	(n=317)	7 0
Age	11-20 Years	25	7.9
	21-30 Years	147	46.4
	31-40 Years	107	33.8
	41-50 Years	38	12.0
Religion	Christianity	292	92.1
	Islam	25	7.9
Marital Status	Single	11	3.5
	Married	301	95.0
	Divorced	05	1.6
Educational Level	Primary level	92	29.0
	Secondary level	182	57.4
	Tertiary level	43	13.5
Occupation	Health worker	22	6.9
L.	Trader	114	36
	Teacher	21	6.6
	Tailor	18	5.7
	Public / Civil servant	33	10.4
	Hair dresser	10	3.2
	Student	30	9.4
	Farming	35	11.0
	Unemployed	12	3.8
	Full housewife	22	6.9
Parity	0	06	1.9
2	1-3	212	66.9
	4-6	95	30.0
	7-10	04	1.3

Key findings from the quantitative data

 Table 2: Socio-Demographic Characteristics of Respondents

Table 2 shows the socio demographic characteristics of the women who utilized family planning methods in the years under review. The mean age of the women was 30.48 years and majority (302 (95%) of them were married. They all had formal education; although, only 43(13.56%) had tertiary education. Furthermore, over two-thirds of them 253 (79.8%) were employed; while, 30(9.46%) were students, and 34(10.72%) were either unemployed or full housewife. Those with Parity 1-3 were 212(66.9%), and only 4 (1.3%) had 7-10 children; while, the mean parity was 3.

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Pattern of utilization of family planning services 2016-2020

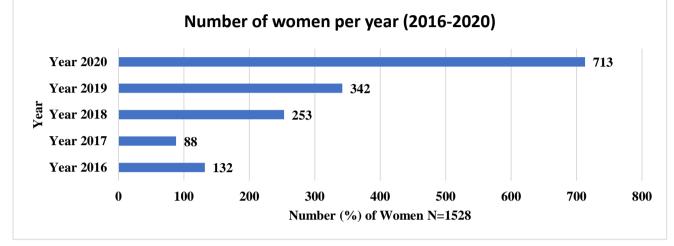


Figure 1: Total number of women who utilized family planning services per year A total of 1528 women accessed family planning services in the 5-year period under review. The annual attendance increased progressively from 2016 to 2020 with the highest annual attendance of 713 (46.66%) in 2020; there was however a drop in 2017 (88 (5.55%) before picking up again in 2018 (Figure 1).

Table 3: Family planning metho	ds utilized by the women
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Method	Frequency (n=317)	Percentage (%)
Jadelle	120	37.9
Implanon	98	30.9
Intrauterine contraceptive device	59	18.6
Depo provera	21	6.6
Pills	12	3.8
Noristerat	07	2.2

Six family planning methods were accessed by the women in the 5-year period (Table 3). Majority of them (120 (37.9%) used Jadelle method; while, only 7 (2.2%) used Noristerat. As shown in Table 4, majority of the women (181 (57.1%) were stable on their family planning choices; while, others made some changes in their methods. Although none of the women was recorded as using condom, 29 (9.1%) changed from condom to other methods (Table 4).

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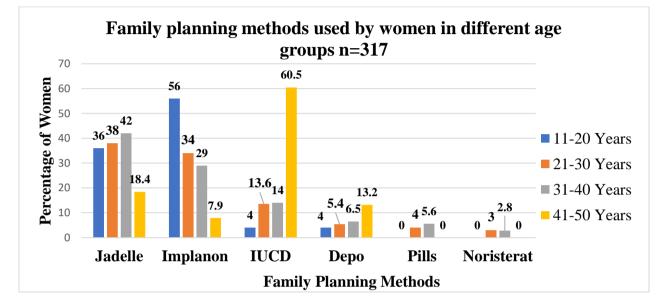


Figure 2: Pattern of family planning method utilization by women in different age groups None of the women in the extreme age groups of 11-20 years and 41-50 years used the Pills or Noristerat (Figure 2). Majority of women aged 41-50 (23 (60.5%) used IUCD; while, the method mostly used by those aged 11-20 years was Implanon (14 (56%), and for those 21-30 years and 31-40 years, it was Jadelle being 59 (38%) and 45 (42%) respectively. Jadelle was however more used across the various age groups.

Method changed	Frequency (n=317)	Percentage (%)	
Nil	181	57.1	
Condom	29	9.1	
Depo provera	27	8.5	
Jadelle	22	6.9	
Pills	20	6.3	
Implanon	15	4.7	
Intrauterine contraceptive device	09	2.8	
Combined oral contraceptives	03	0.9	
Withdrawal	01	0.3	
Noristerat	08	2.5	
Emergency pills	02	0.6	

Table 4: Family planning methods changed by the women during the period under review

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Hypothesis Testing

 H_0 – There is no significant relationship between the women's age and their pattern of utilization of family planning services.

	0			ng family	Total	Chi	df	Р -
	plannii	ng method	ls		_	Square		value
Methods	11-20	21-30	31-40	41-50				
	Years	Years	Years	Years				
Jadelle	09	59	45	07	120	66.749	15	0.000
Implanon	14	50	31	03	98	_		
IUCD	01	20	15	23	59	_		
Depo	01	08	07	05	21			
Pills	00	06	06	00	12			
Noristerat	00	04	03	00	07			
Total	25	147	107	38	317			

Table 5: Relationshi	p between the age	of the women	and their family	v planning options
	p between the age	of the women	and then raining	pramming options

Table 5 shows the relationship between the age of the women and their family planning method choices. It revealed the chi square value as 66.749, the df as 15 and the p-value less than 0.05 (P=0.00); suggesting a significant relationship between the age of the women and their choice of family planning services, hence the null hypothesis was rejected.

Key findings from the Qualitative Data

The in-depth interview of the key informants was a quest for explanation for the drop in attendance in 2017, choice of family planning methods by the women, and the sustained improvement in attendance since 2018. The drop in attendance in 2017 was reportedly due to the lack of a permanent family planning provider at the facility during the period. Women were said to choose the methods that favoured them based on their desire to have or to not have more children, and the convenience and compatibility of the method of choice. The women were said to prefer Jadelle because it is long lasting and would reduce frequency of visit to the facility and the possibility of forgetting to keep the due dates. The improvement in attendance and utilization of family planning services from 2018 to 2020 was attributed to the support from development partners, sponsored campaigns, continuous training and re-training of providers, marketing activities in the community including male involvement, and the fact that all family planning commodities are free.

DISCUSSION OF FINDINGS

Since Christianity is the main religion in the study area, it was not surprising to find that 92.1% of the women were Christians; while, only 7.9% were Muslims. Relationship between study setting and religion of participants is not new, as Eyitope et al., (2016) also reported that nearly all (91%) the participants in a similar study setting were Christians. With majority (80.2%) of

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the women in the combined age groups of 21-30 years and 31-40 years, it suggests that most of them were young adults actively involved in the childbearing phase of their lives. Irinyenikan (2013), in his study on the contraceptive preferences of female residents in Akure also found that most of the women were in similar age range. Furthermore, nearly all (95%) the women were married, probably suggesting that married women are more likely to comfortably approach a family planning facility for commodities, and they are more involved with childbearing and spacing than do single or divorced women. Only 34 (10.7%) of the women were either unemployed or full housewives suggesting a rationale for working women utilizing family planning services to be able to manage their employments together with the demands of the home front effectively. About two-thirds of the women (66.9%) had one to three children; while 30% had 4-6 children. Only 4 (1.3%) had seven or more children.

These findings are consistent with those of Eyitope et al., (2016), who found that 82.7% of women who used family planning methods had given birth between one and four times. About three decades ago, women were sensitized to having only four children in line with a national policy on maximum of four children per women in Nigeria. The government of Nigeria formulated the nation's first population policy in 1988, with the aim of achieving reductions in fertility (four children per woman by 2000), the proportion of early marriages, the population growth rate, and infant mortality by expanding coverage of family planning (FP) services and family life education across the country (NPC, 2015). The policy however failed to achieve its aspirations due to insufficient resources, poor coordination among lead agencies and service providers, and a lack of political will (NPC, 2015). The present-day economic realities however are motivating women towards embracing family planning principles; hence, majority of the women (66.9%), with less than four children, utilizing family planning services.

In line with the reported increase in utilization of family planning services (World Health Organization, 2023), the number of women utilizing family planning services in the study setting increased progressively in the five-year period (2016-2020); although, there was a dip in 2017. The documented pattern of continuous increase in utilization of family planning services from 2018 to 2020 was attributed to the support from development partners (FMOH & NPHCDA, 2020), sponsored campaigns, continuous training and re-training of providers, marketing activities in the community including male involvement, and the fact that all family planning commodities are free. The collaboration between the government and development partners (FMOH & NPHCDA, 2020) could be described as effective in promoting acceptance and utilization of family planning services by the community and should be sustained beyond the lifespan of special programs and projects. Guaranteeing continued access of the women to their preferred contraceptive methods would promote their human rights, enhance their productivity at work and in their education, and provide them with other health and non-health benefits (World Health Organization, 2023).

The dip in attendance in 2017 was related to the lack of a permanent family planning provider in the facility that year. Global collaborations towards achievement of maternal and child health goals of the elements of the Primary Health Care (PHC), Millennium Development Goals (MDGs), and most recently the Sustainable Development Goals (MDGs) have contributed to improvement in the recruitment, capacity building and support of health workers at the first level of care. Unfortunately, the

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increasing migration of nurses and midwives from Nigeria to other countries and from the rural to urban areas threatens the achievement of universal health coverage in the country (Garbar, 2023). According to the World Health Organization (2023), achieving universal access and the realization of sexual and reproductive health services requires intensified support through effective government policies and programmes (World Health Organization, 2023). In Nigeria, it is important to stop the increasing migration of health personnel by providing enabling working environment in the health sector at all levels of health care service delivery.

It was interesting to note that majority (68.8%) of the women used long-lasting hormonal implants [Jadelle (37.9%), which lasts for 5 years and Implanon (30.9%), which lasts for 3 years]. The qualitative phase of the study revealed that the women preferred Jadelle because it is long lasting, would reduce frequency of visit to the facility, and possibly reduce the likelihood of forgetting to keep the appointment due dates. This high level of use of hormonals by the women is in contrast to the findings in the study by Gbenga-Epebinu et al., (2020) that revealed Jadelle was the fifth most commonly used contraceptive; while, condom was first. Paul et al. (2018), in their study identified implants and IUCDs as the most widely used contraceptive methods between March 2016 and August 2017. In this study however, IUCDs were used by less than one-fifth of the women, majority of whom were the older women, aged 41-50 years. The choice of family planning methods by age of the women was statistically significant (p<0.000). This could be suggestive of increasing preference for long lasting hormonal methods by upcoming generation of women as the older women exit the reproductive age group.

Expectedly, some of the women changed their family planning methods during the period under review; however, almost three-fifths of them were stable on their choices during the period. None of the women was recorded as using condom accessed from the facility; but, 29 (9.1%) changed from condom to other methods. They were probably using condom before accessing services in the facility. Condom however remains the only contraceptive method that can prevent both a pregnancy and the transmission of sexually transmitted infections, including HIV (World Health Organization, 2023). As documented during the qualitative phase, women's choice of methods depended on whether or not it favoured based on their desire to have or to not have more children, the convenience, and the compatibility of the method. Any of these factors could make a woman change from one method to another or temporarily suspend family planning services; for example, if planning to have a baby. According to the World Health Organization (2023), the most appropriate method of birth control depends on an individual's overall health, age, frequency of sexual activity, number of sexual partners, desire to have children in the future, and family history of certain diseases.

CONCLUSION

The study observed increasing utilization of family planning services at the Oba Ile Comprehensive Health Centre, Ondo State in line with the 2023 report of the World Health Organization. Family planning method choices were related to the users' ages. Continued

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collaborative efforts of development partners was critical to sustaining the progress. Focused attention however needs to be paid to arresting the increasing migration of nurses and midwives from the country because of its threat to universal health coverage including family planning.

References

- Ameyaw , E., Budu, E., Sambah, F., Baatiema, L., Appiah, F., Seidu, A.A., & Ahinkorah, B. (2019). Prevalence and determinants of unintended pregnancy in sub-Saharan Africa: A multi-country analysis of demographic and health surveys
- Emmanuel, N., Victor, N., Ikechukwu, S., Onyemaechi, G., Chidiebere, E., & Maureen, N. (2020). Predictive Factors to Access and Use of Family Planning Services by Rural and Semi-urban Dwellers in Afikpo North Local Government Area, Ebonyi State, Nigeria.
- Eyitope, O., Olugbenga, O., & Oluremi, O. (2016). Family Planning Utilization Pattern in Ekiti State University Teaching Hospital, Ado-Ekiti, Nigeria.
- FMOH, & NPHCDA. (2020). *Performance-Based Financing User Manual Volume 1*. Federal Ministry of Health & National Primary Health Care Development Agency.
- Garbar, S. (2023). Nurses' brain drain portends setback for universal health coverage. *Pharmanews, June, 45*(6), 39
- Gbenga-Epebinu, M.A., Okafor, N.A., & Olofinbiyi, R.O (2020). Utilisation of Modern Contraceptives Among Couples in Ilokun Community in Ado Local Government Area, Ekiti state. *Euro Afro Studies International Journal*,1(3),1-13. DOI:10.5281/zenodo.3735450
- Gbenga-Epebinu, M.A & Ogunrinde, M.E. (2020). Qualitative Analysis of Factors Influencing Modern Contraceptives Use Among Couples in A Rural Settlement in Ekiti State, Nigeria. *Commonwealth Journal of Academic Research*, 1(3), 66 – 73. DOI: 10.5281/zenodo.3883142
- NPC. (2015). Nigeria's 2004 National Policy on Population for sustainable Development -Implementation Assessment Report. National Population Commission of Nigeria.
- NPC & ICF (2019). Nigeria National Demographic and Health Survey 2018 (2018 NDHS) National Population Commission (NPC) Nigeria & The DHS Program ICF Maryland, USA https://dhsprogram.com/pubs/pdf/FR359/FR359.pdf
- Paul, N., Theophile, N., Eugene, V., Nkemnji, S., Yolande, N., & Phillipe, N. (2018). Trends and patterns of family planning methods used among women attending family planning clinic in a rural setting in sub-Saharan Africa.
- Park, K. (2015). textbook of preventive and social medicine; demography and family planning; 23rd edition pg 479, 481.
- Singh, S., Bankole, A. & Darroch, J.E. (2017) The impact of contraceptive use and abortion on fertility in sub-Saharan Africa: estimates from 2003-2014. *Population and development review*,43(supply1),141.

Vol.12, No.1, pp.,93-104, 2024

Print ISSN: ISSN 2053-406X,

Online ISSN: ISSN 2053-4078

Website: https://www.eajournals.org/

Publication of the European Centre for Research Training and Development -UK

- Solanke, B.L.(2017)Factors influencing contraceptive use and non-use among women of advanced reproductive age in Nigeria. *Journal of health, population and nutrition*,36(1), 104 111
- Tolefac, P. N, Nana, T. N, Yeika, E. V., Awungafac, N. S., Ntsama, Y. & Njotang, P. N. (2018). Trends and patterns of family planning methods used among women attending family planning clinic in a rural setting in sub-Saharan Africa: the case of Mbalmayo District Hospital, Cameroon BMC Res Notes 11, 541 (2018). https://doi.org/10.1186/s13104-018-3658-1
- World Health Organization. (2023). *Family planning/contraception methods*. https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception
- World Health Organization Inter-agency Working Group on Reproductive Health in Crises. (2010). 5. Family Planning. In Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings: 2010 Revision for Field Review. https://www.ncbi.nlm.nih.gov/books/NBK305152/
- World Population Day (WPD) (2017). World Population Day (WPD) Data Sheet. https://www.prb.org/resources/2017-world-population-data-sheet-pdf/