

## Family Planning for a HIV Seropositive Woman: Experience from *Association Espoir pour Demain (AED)* in the Urban District of Kara (Togo)

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### Abstract

**Objective:** To determine the prevalence of use of family planning and contraceptive methods, and the epidemiological profile of the target population.

**Method:** A retrospective cross-sectional study of a descriptive type was conducted from January 1, 2016 to June 30, 2017. For the active queue, cares were free within the AED and in public health facilities in relationship with the AED. People concerned were HIV-positive women that received contraceptive services in the AED.

**Results:** Among the 1224 patients in the active queue, there were 766 women of reproductive age and 320 protected, giving a frequency of 41.77%. During the study period, 97 women adopted a modern contraceptive method. The mean age was 30 years [14 - 50 years], 73.2% were married and 36.1% had a primary education level. Women had on average 3 children and 78 women (78.3%) used contraception to space births. The predominant contraceptive methods were jadelle (57.7%), Depoprovera (27.8%) and the pill (14.4%). We have identified five (05) cases of failure of the contraceptive method with 04 pregnancies under jadelle.

**Conclusion:** Women of childbearing age living with HIV need effective contraceptive methods to prevent unplanned pregnancy and perinatal transmission.

**Keywords:** HIV Positive Women; Family Planning; AED; Togo

### Introduction

The HIV epidemic is a public health problem, especially in sub-Saharan Africa, where most of the infected people live. The elimination of new infections is a concern in the affected countries. As an example, Togo has a national HIV and AIDS policy that opts for a generation without AIDS in 2020 [1]. In this regard, the World Health Organization is implementing in the country mother-to-child transmission programmes (PMTCT) that combine family planning (FP) and HIV prevention. One of the objectives of the programmes is to prevent new HIV infections among women of childbearing age and unwanted pregnancies among women living with HIV [2]. The integration of family planning (FP) and HIV services increase the access to health services and the use of contraception for people living with HIV who wish to avoid pregnancy, reduce unmet need for FP and reduce the new HIV infections in children [3,4]. However, this integration generates complexity and requires rigor in the administration of contraceptive methods.

Several considerations in the context of the medical condition and the medically relevant characteristics determine the choice of a contraceptive method [5]. Hormonal contraception provides protection against unwanted pregnancy, but not against HIV or other sexually transmitted infections (STIs). All people at high risk of HIV infection or other STIs should have easy access to prevention strategies, such as condoms and, where appropriate, pre-exposure prophylaxis [1,5]. However, interactions between antiretroviral therapy and hormonal contraception may exist [5,6].

In Togo, the health programmes have a positive impact on family planning and HIV prevalence. According to the 2013 Demographic Health Survey (EDST III), HIV prevalence is 2.5% and the proportion of HIV-positive children is 10.4%. Regarding family planning at PMTCT sites, 6378 clients received counseling, 2023 used dual protection and 675 used other contraceptive methods [7].

The AED, where the study took place, is a specialized center for the care of people living with HIV (PLHIV) that is providing also, at the same time, family planning services.

### **Aim of the Study**

The aim of the study is to determine the frequency of family planning in the AED, the epidemiological profile of the patients and the rate of use of modern contraceptive methods designed for PLHIV.

### **Methodology**

**Study area:** This study was conducted at the Association Espoir pour Demain (AED). Within the AED, FP services are integrated with HIV services. PLHIV are fully covered for all the services. There were 1224 patients in the active queue including 766 women of childbearing age.

**Study design:** It was a retrospective descriptive study about 18 months, January 1<sup>st</sup>, 2016 to June 30<sup>th</sup>, 2017. The data was collected on a pre-established form. The data sources were individual client charts, FP records, and monthly reports.

**Study population, inclusion:** An HIV-positive woman who has adopted a contraceptive method at the AED. All women were on anti-retroviral therapy with Tenofovir (TDF) + Lamivudine (3TC) + Efavirenz (EFV).

**Data analysis:** Analysis and data processing were done with Epi Data 3.1 software.

**Ethical considerations:** Authorization from the AED.

### **Results**

#### **Frequency of family planning among HIV-positive women at the AED**

There are 320 protected women in the population of 766 women of childbearing age, a frequency of 41.77%. During our study period, 97 new HIV-positive patients adopted modern contraceptive methods.

#### **Epidemiological profile**

##### **Age**

The average age was 30 +/- 4 years old. Women aged under 20 and women aged over 45 represent each 4.1% of the population (Table 1).

Age (years)	Frequency	Percentage (%)
[14 - 19]	4	4,1
[20 - 24]	11	11,4
[25 - 29]	30	31
[30 - 34]	23	23,7
[35 - 39]	16	16,5
[40 - 44]	9	9,2
[45 - 50]	4	4,1
Total	97	100

**Table 1:** Distribution of the population by age group

#### Epidemiological characteristics by marital status, level of education, parity, and body weight

In 73.2% of the cases, the clients were living in a couple. Pauciparous represent 46.4% of the population with an average of two (2) surviving children. Sixty-four (64) of these women were educated; for 36.1% of them, a primary school was the highest level of education reached while 38.1% of these clients attended a secondary school. Their average weight was 54 +/- 5 kg with extremes of 40 and 79 kg (Table 2).

Characteristics	Frequency (n = 97)	Percentage (%)
<b>Matrimonial status</b>		
Married	71	73,2%
Single	26	26,8%
<b>Education</b>		
None	23	23,7%
Primary school	35	36,1%
Secondary school	37	38,1%
Higher education	2	2,1%
<b>Parity</b>		
Nulliparous (0)	9	9,3%
Primiparous (1)	20	20,6%
Pauciparous (2- 3)	45	46,4%
Multiparous (4 - 11)	23	23,7%
<b>Corporal weight</b>		
[40 - 49 kg]	25	25,8%
[50 - 59 kg]	50	51,6%
[60 - 69 kg]	18	18,5%
[70 - 79 kg]	4	4,1%

**Table 2:** Distribution of clients by marital status, educational attainment, parity, and body weight.

#### Contraceptive methods used

All clients received condoms. More than half of the clients (57.7%) chose the Jadelle implant, and 27.8% of the women chose the injectable Depo Medroxyprogesterone Acetate (DMPA) (Table 3).

Contraceptive method	Frequency	Percentage (%)
Jadelle	56	57,7%
Injectable DMPA*	27	27,8%
Pills	14	14,4%
Total	97	100%

**Table 3:** Distribution of clients by selected contraceptive method.

\*DMPA: Depo Medroxyprogesterone Acetate

### The reason for using contraceptive

Seventy-six (76) clients or 78.3% chose a contraceptive method to space births, while 21 or 21.7% chose a method to limit births. The mean duration of the desired birth spacing was 27.3 months. The desired number of children was on average 3 +/- 1 children per woman (Table 4).

Desired number of children	Frequency	Percentage (%)
1	4	4,1%
2	40	41,2%
3	22	22,7%
4	22	22,7%
5	9	9,3%
Total	97	100%

**Table 4:** Distribution of clients by desired number of children.

### Failure of the contraceptive method

We recorded the occurrence of five (05) cases of pregnancy including four (04) cases under the Jadelle implant and one (01) under pills. Pill pregnancy occurred after 13 months of use. The pill was stopped as soon as the pregnancy diagnosis was confirmed. The outcome of the pregnancy was spontaneous miscarriage at 3 months. Regarding the Jadelle implant, the average time of use before pregnancy was 19.25 months with 16 months and 24 months as extremes. Jadelle implant withdrawal was systematic in all clients at the time of the diagnosis. The outcome of the pregnancies was two (02) clandestine abortions and two (02) normal term deliveries of healthy children.

## Discussion

### Frequency

The prevalence of contraceptive use among HIV-positive women was 41.77%. This rate is in line with data from the Third Demographic Health Survey in Togo (EDST III), where contraceptive prevalence among women living with HIV was 42.30% [7]. Given the lack of information on contraception for people living with HIV, for fear of the side effects of contraceptives commonly reported by those around them and because they worry about possible drug interactions with antiretrovirals, some people use inappropriate contraceptive methods [8].

### Epidemiological profile

In our study, all women were on antiretroviral therapy. In its national HIV and AIDS policy, Togo has chosen option B +, so women living with HIV benefit from triple therapy.

The majority of clients (73.2%) were married and had an average of two (02) children. Their average age was 30 [14 - 50 years]. In general, they were sexually active young women. Their desire for procreation is legitimate and comparable to that of the general population. This explains the fact that 78.3% opted for family planning in order to space births. The role of educational level is not negligible for the adoption of a contraceptive method (level of education: secondary 38.1% and primary 36.1%).

Zamané, *et al.* [9], in his study on the desire for children in women infected by HIV, found that age and the insufficient number of living children were the reasons for the desire for procreation. In their study, infected women wanted to have an average of 3 +/- 1 child. This corresponds approximately to the fertility rate in Togo which is 4.1 children per woman according to EDST III. Also, 19.6% decided to limit births because they reached the desired family size. Aska, *et al.* [10] in "Determinants of Fertility Desires Among HIV Positive Women Living in the Western Highlands Province of Papua New Guinea" revealed that thirty-four percent of the participants desired a child in the future.

Failure to procreate was a source of suffering and sometimes conjugal violence [10,11]. According to the study by Somé, *et al.* [11] on reproduction and contraception among people living with HIV in Bobo-Dioulasso, Burkina Faso, 99% of respondents would use the Medically Assisted Procreation (MPA) as an alternative to the natural method of procreation.

The desired birth-interval length was on average 27.3 months. This duration is in line with the WHO targets. Waiting at least for 24 months before pregnancy reduces the risk of adverse maternal, perinatal, and infant outcomes.

### **Choice of contraceptive methods**

HIV-positive people with no other sexually transmitted diseases (STDs) and effective antiretroviral therapy do not sexually transmit HIV, provided the viral load has been undetectable for at least six months [12]. AED clients chose hormonal contraception. Most of them (57.7%) chose a long-acting method namely the Jadelle implant while 27.8% preferred the injectable DMPA and 14.5% chose the combined oral pills. These three contraceptive methods prevent pregnancy but do not protect against sexually transmitted infections and HIV. The condom is the only method that prevents pregnancy and HIV. Condoms are therefore routinely distributed to all clients as recommended by WHO [5,6,8]. The choice of the contraceptive methods of the clients of the AED reflects that of Kara's region and also a reluctance of the population with respect to the intrauterine device (IUD) [13]. There is an interaction between hormonal contraception and antiretroviral therapy. AED clients benefit from triple therapy with Efavirenz, Tenofovir, and Lamivudine.

Efavirenz and nevirapine may reduce the effectiveness of combined oral contraceptives and contraceptive implants [6,14,15]. We recorded five (05) pregnancies when using contraceptive methods including one (01) pregnancy under combined oral pill and four (04) pregnancies under Jadelle implant. According to the study by Scarsi and al, within 1 year of combined use, levonorgestrel exposure was markedly reduced in participants who received efavirenz-based ART, accompanied by contraceptive failures. In contrast, nevirapine-based ART did not adversely affect levonorgestrel exposure or efficacy [16]. Two retrospective cohort assessments conducted in Swaziland (Perry, *et al.*) and Kenya (Patel, *et al.*) have shown an increased risk of contraceptive failure in women using contraceptive implants and receiving efavirenz [16,17].

According to the medical eligibility criteria for contraceptive use 2015, women using Antiretroviral Therapy (ART) containing efavirenz or nevirapine can use COCs, CICs, combined contraceptive patches and rings, POPs, NET-EN, and LNG and ETG implants (MEC Category 2). Women using efavirenz or nevirapine can use DMPA without restriction (MEC Category 1) [5]. DMPA and the hormonal IUD appear to maintain contraceptive efficacy when taken with antiretrovirals [6,14].

Women on antiretroviral therapy who choose to use combined oral contraceptives or contraceptive implants should be counseled on the potential decrease in effectiveness of these methods when used concurrently with certain antiretroviral regimens. In addition, alternative methods must be proposed to them [14].

## Conclusion

According to our study, Jadelle implant and injectable DMPA were the most popular contraceptive methods used by women with HIV. However, because of the interactions between antiretroviral therapy and hormonal contraception, we recorded four (4) pregnancies under Jadelle implant after an average duration of use of 19.25 months and a pregnancy under combined oral pill. Women on Antiretroviral Therapy should be informed of this risk for proper condom use. The IUD is a safer method for this population. It is therefore important that in the AED, counseling is strengthened on the IUD and especially on the PPIUD.

## Declaration of Conflict of Interest

The authors have no conflict of interest to declare.

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