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RESEARCH ARTICLE

PEOPLE LIVING WITH HIV (PLHIV) AND ACCESS TO ANTIRETROVIRALS IN THE SAKASSOU HEALTH DISTRICT (CENTRAL CÔTE D'IVOIRE)

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ABSTRACT

The fight against HIV/AIDS is based on screening, treatment and biological examination. Access to antiretroviral (ARV) treatment, the second component of the fight against HIV/AIDS, is effective in the Sakassou Health District. Despite these efforts, the Sakassou Health District remains a high-risk area. The aim of this study is to analyze the determinants of access to antiretroviral drugs for people living with HIV (PLHIV) in the Sakassou Health District. The study revealed that 91.5% of PLHIV are over 18 years of age. In terms of gender structure, 80% of PLWHA are women and 20% men. In terms of geographical accessibility, 63.5% of PLWHA are more than 5 km from a health center. The remoteness of the majority of PLHIV from health centers is an obstacle to access to antiretroviral treatment. Some 96.8% of PLHIV are regularly taking their antiretroviral treatment. However, 3.2% have experienced interruptions in their antiretroviral treatment. Interruption of antiretroviral treatment among PLWHA is significantly associated with excessive alcohol consumption, recourse to prayer camps, food insecurity, denial of HIV status and stigmatization. This study leads to the conclusion that improving access to antiretrovirals is a guarantee of health security for PLWHA.

INTRODUCTION

HIV/AIDS is a major public health threat in sub-Saharan Africa. Of the 37.8 million people worldwide living with HIV/AIDS, around 25 million live in this region (G. Kombe et al., 2005, p.671). According to L. Yéo (2014, p.38), after exposure to HIV, an infected person can either develop the disease or not. The risk of developing the disease varies according to the type of exposure, its severity and other factors that may influence contamination. Symptoms such as weight loss in excess of 10%, profuse night sweats, moderate but persistent fever and diarrhoea lasting more than a month contribute to the deterioration of the patient's general condition (UNAIDS, 2004, quoted by G. Kombé et al., 2004, p.671). The human immunodeficiency virus (HIV) attacks the body's immune system. However, recent advances in HIV treatment have slowed the progression of the disease to the point where HIV infection is considered a chronic and manageable disease, enabling more HIV sufferers to lead healthy, long and active lives (Santé Publique France, 2016, p.4). And this is thanks to antiretrovirals, the first of which is zidovudine.

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Treatment of the infection has simplified considerably with the availability of several fixed combinations comprising three antiretrovirals (ARVs) in a combined form in a single tablet per day. With the various advances made since the appearance of the HIV virus, we now have six classes of antiretrovirals: nucleoside IT inhibitors, non-nucleoside IT inhibitors, integrase inhibitors, protease inhibitors, entry inhibitors of two kinds: fusion inhibitors (IF) and CCR5 co-receptor antagonists, and Zidovudine, a member of the dideoxynucleoside class (V. Avettand-Fenoel et al., 2017, p.16-20). Côte d'Ivoire, one of the countries hardest hit by HIV infection in West Africa, is facing a mixed epidemic of HIV, both generalized in the 15-49 age bracket, concentrating in key populations made up of sex workers, Men who have Sex with Men, transgender people, and drug addicts. Thanks to the efforts made by the government in this fight, the seroprevalence rate has gradually decreased, from 4.7% in 2005, 3.7% in 2012 and 2.5% in 2018. The rate in the general population aged 15-49 is 2.1% (RIP PLUS, 2021, p.1). In 1995, following several policies driven by international institutions, Côte d'Ivoire set up a national program to combat AIDS, sexually transmitted diseases and tuberculosis. This makes Côte d'Ivoire one of the most committed countries in Africa in the fight against AIDS (M. Philippe, V. Laurent and M. Jean, 2001, p.3; M. K. Dominique, 1998, p.14). In 1997, Côte d'Ivoire committed itself to providing ARV treatment to

HIV patients as part of the UNAIDS initiative (M. Philippe, V. Laurent and M. Jean, 2001, p.3). After a decade, more precisely in August 2008, the Ivorian government opted for free ARV treatment. Access to antiretroviral treatment is a global health issue. It ranks third among priority actions (S. Tenguel et al., 2009, p.157). In this drive to improve access to antiretroviral treatment, the number of follow-up and treatment services increased from 2014 to 2015, rising from 746 sites in 2014 to 806 in 2015 (Ministère de la Santé et de l'Hygiène Publique, 2015, p.141). The Sakassou Health District has benefited from the achievements of control policies to curb the recrudescence of HIV/AIDS in its territory. Despite these efforts, the Sakassou Health District remains a high-risk area. What are the socio-demographic characteristics of people living with HIV in the Sakassou health district? What are the constraints on geographical access to antiretroviral drugs? What is the level of use of antiretrovirals by PLHIV in Sakassou District? The aim of this study is to analyze the determinants of access to antiretrovirals for people living with HIV (PLHIV) in the Sakassou health district. The study is based on the hypothesis that improved access to antiretrovirals is a guarantee of health security for PLHIV.

MATERIALS AND METHODS

Presentation of the study area: The Sakassou Health District in the Gbêkê health region (central Côte d'Ivoire) is home to twenty-two (22) health centers, a general hospital, a hospital specializing in the treatment of Burili ulcers, a tuberculosis screening center and a medical school. Figure 1 shows the Sakassou Health District.

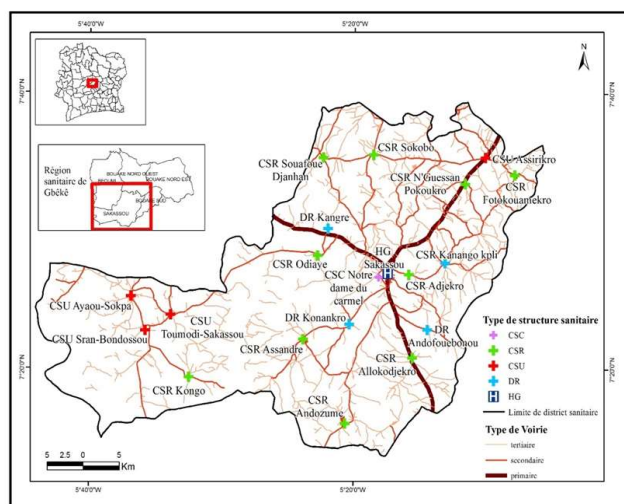


Figure 1. Presentation of the Sakassou Health District

With an estimated population of 108110 inhabitants in 2021 (INS, 2022, p.30), the Sakassou Health District covers an area of 1820 km². Created in 2000, the Sakassou Health District covers 172 villages and four (04) sub-prefectures: Djibril-Assirikro, Toumodi-Sakassou, Ayaou-Sran and the Sakassou sub-prefecture. The health district was affected by the war that ravaged our country from 2002 to 2010. The technical facilities were destroyed during the war, and medical staff deserted the area to take refuge in the government zone.

Data: The data used in this study are of primary and secondary types. These are data collected from practitioners through the various HIV activity reports and from administrative and technical departments.

These include epidemiological statistics from the Sakassou Health District, the Direction de l'Informatique et de l'Information Sanitaire (DIIS) and the NGOs ACONDA and AIDS Alliance Internationale. These data are based on routine HIV activity reports collected and compiled by district staff, and on the results of field surveys conducted with community health workers (CHWs) and data monitoring agents (DMAs). Table 1 shows the distribution of HIV-positive people in the Sakassou Health District.

Table 1. Distribution of HIV-positive people in Sakassou Health District

Sub-prefectures	Number of seropositives/Sub-prefecture
Sakassou	820
Assirikro	203
Ayaou Sokpa	102
Toumodi Sakassou	56
Total	1181

Source: Sakassou Health District, 2022

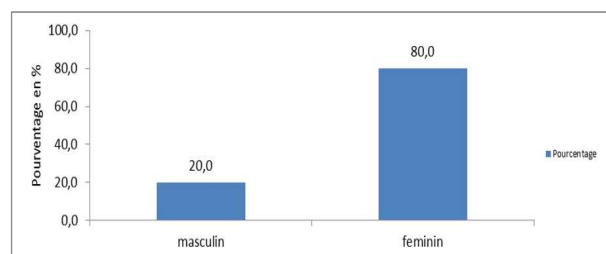
Data collection was carried out over the period from January to December 2022. In particular, questionnaire surveys were carried out over the period from February 15 to June 29 2022. The questionnaire survey was chosen in order to understand the obstacles to accessing ARV treatment in Sakassou district, and the strategies put in place to overcome these obstacles. Surveys were carried out among 342 PLHIV out of a total of 1181 (28.95%) in the Sakassou Health District.

Data processing and analysis: Tables and graphs were processed using EXCEL and SPSS. Maps were created using QGIS mapping software. Data analysis revealed the results of z-difference, Bravais-Pearson and Fisher correlation tests at a significance level of 5%.

RESULTS

Socio-demographic characteristics of PLHIV in Sakassou Health District

Breakdown of people living with HIV by sex: At the 5% significance level, the p-value ($p = 0.0001$) of the z-difference test reveals a highly significant variation in exposure to HIV-AIDS according to gender structure. The gender structure reveals that women constitute the majority of at-risk populations. In fact, 80.1% of PLWHA are female versus 19.9% male. Figure 2 illustrates this.



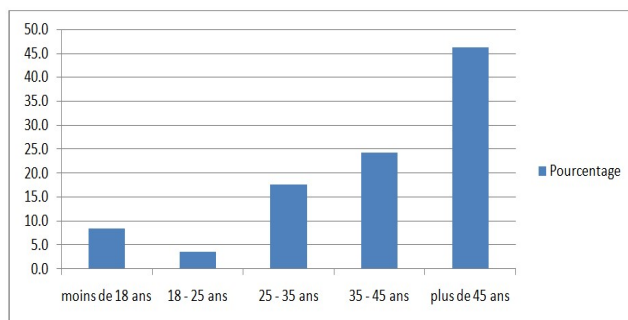
Source: Sakassou Health District, 2022

Figure 2. Distribution of PLHIV by sex in the Sakassou health district (p.2)

The high prevalence among women can be explained by the systemic effect of a number of factors, including female anatomy and precarious socio-economic conditions. Anatomically, women are more vulnerable to HIV infection because of the female genital tract, which can retain seminal

secretions from their partners, and because of the fragility of the vaginal mucosa. According to 82% of respondents, women's high exposure to HIV/AIDS is explained by their inability to offer condoms to their partners. According to 89% of respondents, the proposal of condoms by women in couples to their partners is often perceived as a lack of trust or an admission of infidelity. Thus, the systemic effect of separation anxiety, loneliness and even financial insecurity, to accept unprotected sex despite suspecting their partner of being infected. In addition, women's high exposure to HIV is linked to their difficult living conditions. Highly dependent on men, they tend to give themselves up to the highest bidder without any precautions, especially as they have no power of discussion during sex.

Distribution of people living with HIV by age group: PHAs vary very significantly by age group. This is shown by the p-value ($p = 0.002$) of the Fisher test at the 5% significance level. Some 8.5% of PLWHA are under 18. The 18-25 age group accounts for 3.5% of all PLHIV. On the other hand, 17.5% of PLHIV in the cohort are aged between 25 and 35. The 35-45 age group accounts for 24.3% of PLHIV. The highest rate is in the over-45 age bracket. Figure 3 shows the distribution of PLHIV by age group.

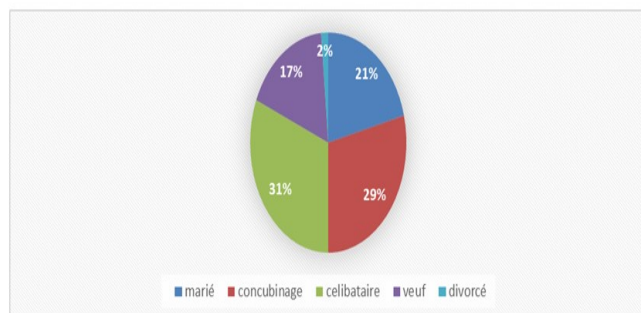


Source: Sakassou Health District, 2022

Figure 3. Distribution of PLWHA by age group in Sakassou Health District (p.3)

Statistically, 91.5% of PLWHA are over 18 years of age. This is the active population. In view of this fact, HIV/AIDS could be an obstacle to economic development in the Sakassou Health District. The economic situation of PLWHA, especially in rural areas, remains precarious. This economic precariousness is an obstacle to access to antiretroviral drugs.

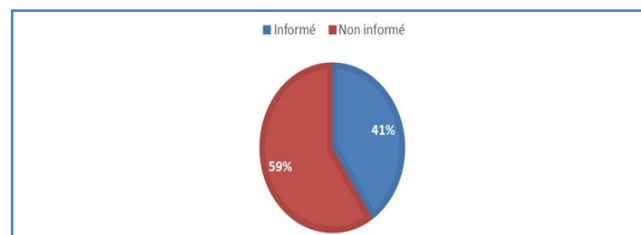
Distribution of people living with HIV by marital status: Exposure to HIV/AIDS is influenced by marital status. This is a discriminating factor that determines a certain lifestyle and sexual behavior that can either expose or protect against HIV/AIDS infection. Figure 4 shows the distribution of PLWHA according to marital status.



Source: Sakassou Health District, 2022

Figure 4. Distribution of PLHIV by marital status (p.3)

The variation in PLHIV by marital status is significant according to the p-value ($p = 0.0001$) of the difference z-test at the 5% significance level. Single and cohabiting people are the most at-risk populations. They account for 60% of all PLWHA. HIV/AIDS among singles and cohabitants is significantly linked to risky sexual behavior, characterized by infidelity and failure to use condoms during intercourse. Some 58.8% of HIV-positive people informed their partner of their HIV status. On the other hand, 39.2% of PLWHA preferred to hide the information from their partner. According to the survey results, despite awareness campaigns, HIV/AIDS remains a taboo subject, particularly in rural areas, due to stigmatization. Figure 5 shows the distribution of PLWHA according to their partner's level of information about their seropositivity.



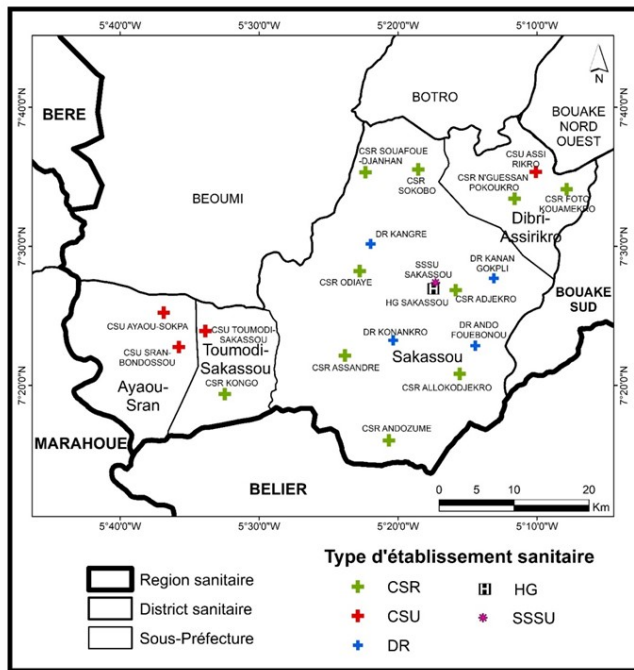
Source: Sakassou Health District, 2019

Figure 5. Distribution of PHAs according to their spouse level of information about their HIV status (p.3)

According to 64% of respondents, refusal to inform partners is linked to anxiety. According to these respondents, informing the partner increases the risk of disrupting cohesion within the couple and the family unit. According to B. Tavernier (2010, p.4) "After the announcement, the person will continue to carry more or less a secret that affects his or her intimacy, social and emotional life, and relationship with time. He or she will have to choose to whom and when to tell it, at a time when the future seems to be slipping away". In 45% of cases, the partners of PLWHA do not know their HIV status. More than a third of them, i.e. 37%, said their partners had not been infected.

The mobility of PLWHA, a constraint on access to the hospital network

A dense hospital network: The hospital network in the Sakassou Health District is made up of first-contact health facilities and referral hospitals. Front-line health establishments are the point of entry into the healthcare system, based on the pyramid structure of the Ivory Coast healthcare system. The territorial network is based on the health areas of dispensaries, rural health centers and urban health centers. The Sakassou Health District is home to 22 first-contact health facilities, which are normally the entry points into the healthcare system. The populations of the Buyo health district are served by eleven (11) rural health centers (CSR), four (04) rural dispensaries (DR), four (04) urban health centers (CSU), one (01) school and university health service (SSSU) and one (01) general hospital (HG), which is the reference hospital (HR). In addition to the public health establishments, there is one (01) faith-based health center run by the Carmelite missionary sisters, and two (02) non-governmental organizations (NGOs), Sarène and Sainte Martine, located in the Sakassou sub-prefecture. Map 2 shows the distribution of ESPCs in the Sakassou health district.

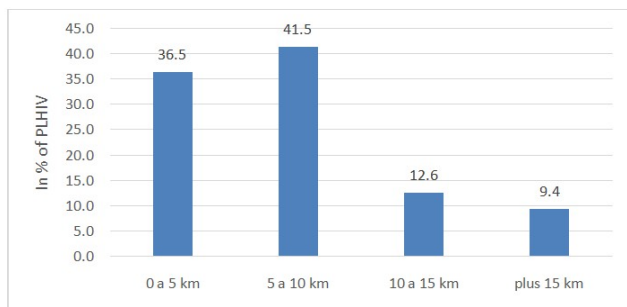


Source: Sakassou Health District, 2022, Production: KONAN Yannick, 2022

Map 2. Distribution of ESPCs in the Sakassou health district

Geographical accessibility constraints for health centers:

These geographical accessibility constraints are assessed through physical distance and cost distance. Physical distance is the distance separating PLHIV from health centers in their place of residence. Cost distance, on the other hand, is based on the cost of transport. The majority of PLHIV live some distance from health centers. Some 63.5% of PLHIV are more than 5 km from a health center. The distribution of PLWHA according to geographical accessibility is shown in figure 6.

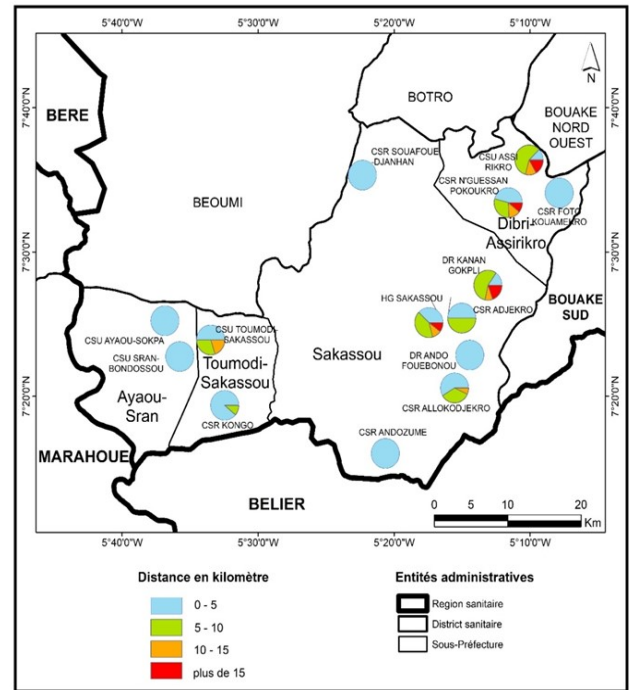


Source: Sakassou Health District, 2019

Figure 6. Distribution of the distance separating PLHIV from health centers in the Sakassou health district (p.4)

In conclusion, 78% of PLWHA in the Sakassou Health District are less than 10 km from health centers. PLHIV located between 0 and 5 km are in almost all health areas, except in Toumodi Sakassou, Sakassou General Hospital, Kanangopkli, N'guessan Pokoukro, Assirikro and Allokodjekro, where some PLHIV are more than 10 km from the health center.

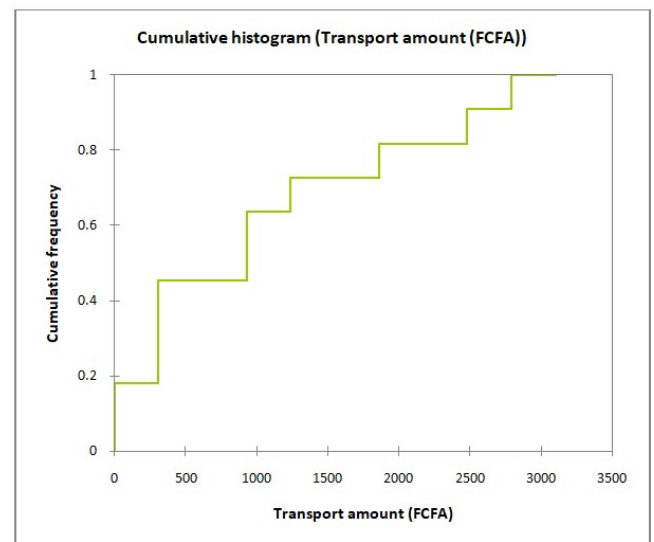
The effect of distance interferes with the cost of transport. The cost of transport itself depends on the availability of transport, the state of the roads and the weight of the clientele. The cost of transport to health centers varies between 200 F.CFA and 3000 F. CFA (figure 7). The estimated median value of 800 FCFA shows that 50% of PLWHA pay at least 800 to access a health center.



Source: our surveys, 2022 Production: KONAN Yannick, 2022

Map 3. Distribution of PLHIV by partner infected with HIV/AIDS in Sakassou health District

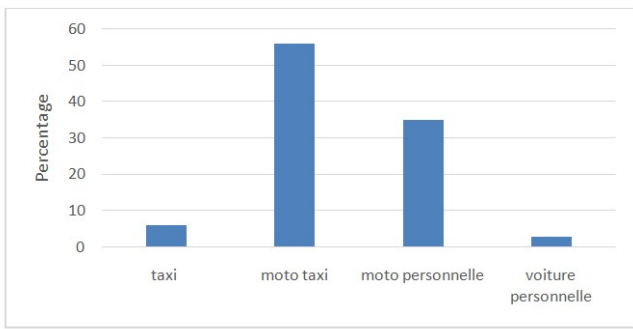
On the other hand, the first quartile estimated at 375 FCFA reveals that 25% of PLWHA have to pay at least 375 FCFA to reach a health center.



Source: Sakassou Health District data processing, 2019

Figure 7. Increasing cumulative frequency of the cost of transporting PLHIV to health centers

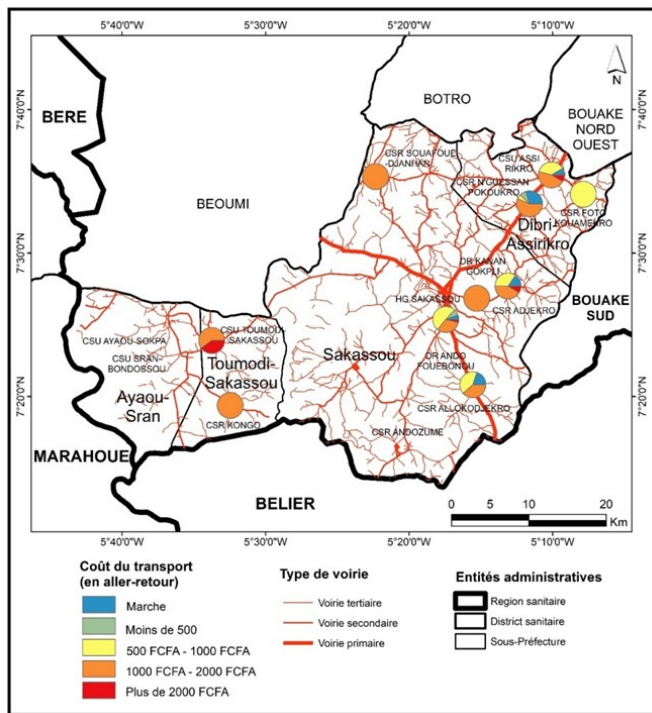
The cost of transport could be a hindrance to consultations for people living with HIV/AIDS, as the majority of patients are farmers who suffer under the weight of economic insecurity. Around 91% of PLWHA travel to health centers by motorcycle. Of these, 56% use motorcycle cabs. Given the poor state of the roads, motorcycles are the most common means of transport to reach isolated areas. Figure 8 shows the distribution of means of transport used by PLWHA.



Source: Our surveys, 2022

Figure 8. Distribution of means of transport used by PLHIV to reach health centers (p.4)

Transport costs vary according to the state of the road network serving the localities and health centers. In health centers located close to primary roads, transport costs vary between 500 FCFA and 1,500 FCFA each way. Map 4 shows the spatial distribution of the cost of transporting PLHIV to health centers in the Sakassou Health District.



Source: our surveys, 2022 Production: KONAN Yannick, 2022

Map 4. Spatial distribution of the cost of transporting PLWHA to and from Sakassou health district

Given their precarious financial situation, the high cost of transport is a barrier to access to antiretrovirals for PLWHA in the Sakassou Health District.

Use of antiretroviral treatments in the Sakassou health district

Antiretroviral treatment regimen for patients living with HIV/AIDS

The therapeutic regimen depends on the type of virus and the physiological state of the HIV patient. Treatment is by triple therapy, i.e. a combination of three molecules. The following molecules are used Tenofovir (TDF), Lamivudine (3TC),

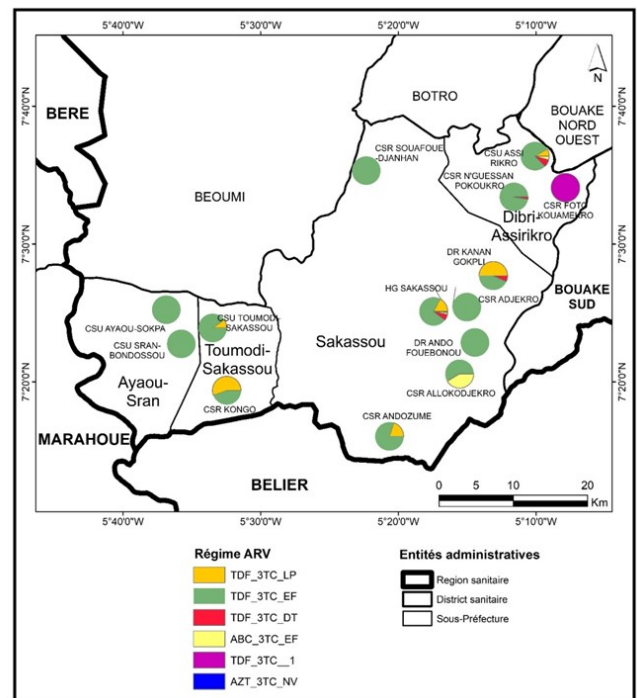
Efavirenz (EFV), Abacavir (ABC), Nevirapine (NVP), Lopinavir/Ritonavir (LPV), Zidovudine (AZT) and the latest discovery, Dolutegravir (DTG). These are the molecules used to treat patients in the Sakassou health district. Table 6 shows the distribution of the therapeutic regimen in the Sakassou health district.

Table 6: Distribution of therapeutic regimens in the Sakassou Health District

Molecules	TDF-3TC-LPV	TDF-3TC-EFV	TDF-3TC-DTG	ABC-3TC-EFV	AZT-3TC-NVP	Total
Proportion	22,8 %	66,1 %	6,4%	4,4%	0,3%	100%

Source: Sakassou Health District, 2019

Some 66.1% of patients are on TDF-3TC-EFV. In contrast, 22.8% of patients are on TDF-3TC-LPV. In 6.4% of cases, treatment is based on TDF-3TC-DTG. ABC-3TC-EFV is recommended for 4.4% of patients. Only 0.3% of patients receive AZT-3TC-NVP. The low percentage of patients treated with TDF-3TC-DTG is due to the gradual switch of patients to TDF-3TC-EFV. However, there is an uneven spatial distribution of the ARV treatment regimen in the Sakassou Health District, as shown on Map 5.



Source: Sakassou Health District, 2019 Production: Konan Yannick

Map 5. Distribution of ARV treatment regimens for PLHIV in Sakassou health district

The TDF-3TC-EFV regimen is used among PLHIV in 80% of health centers in the Sakassou Health District. However, the AZT-3TC-NVP-based regimen is dominant among PLHIV at the Kongo and Fotokouamekro rural health centers. In the Kanago kpi rural health center, 50% of PLHIV are on a TDF-3TC-LPV5-based regimen. In contrast, this regimen is used secondarily at Kongo Rural Health Center.

ARV treatment of patients in the Sakassou Health District:

The rate of patients who have stopped treatment at least once is 3.2%. On the other hand, 96.8% of PLWHA had never interrupted their medication.

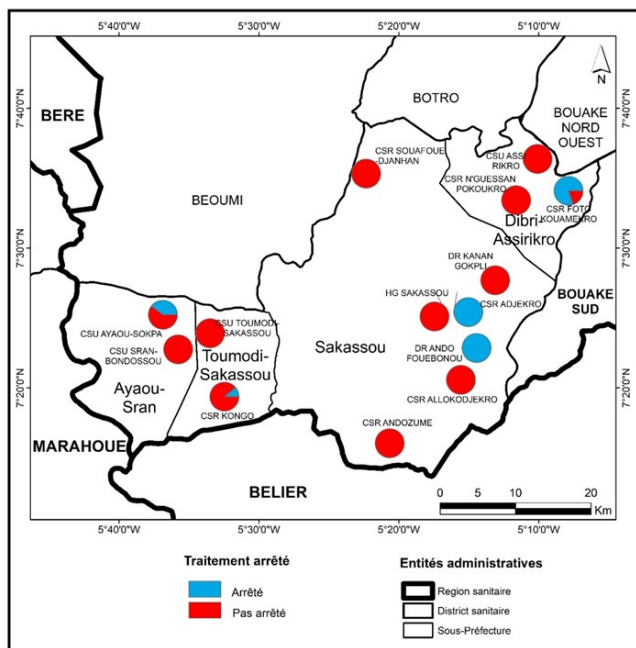
These figures clearly show that the counseling was well done. Table 7 shows the distribution of treatment status among PLHIV in the Sakassou health district.

Table 7. Distribution of treatment status of PLWHA in Sakassou health district

Situation	Workforce	Proportion
Order	11	3,2%
Not stopped	331	96,8%
Total	342	100,0%

Source: Sakassou Health District, 2019

Caring for PLWHA is a process. Indeed, before screening a patient, it's very important to talk to him or her about the disease, treatment and the dangers of not taking triple therapy. It is following this process that the patient is screened by the rapid detection test known as *determina*. The majority of patients who receive good counseling do not stop treatment, because they have perceived the importance of medication in balancing their health. In almost all health centers in the Sakassou health district, PLWHA do not stop treatment. However, more work needs to be done in the Ayaou Sokpa, Andofouebonou, Adjekro and Fotokouamekro health centers to reduce the existing proportion of PLHIV stopping treatment. Map 6 shows the spatial distribution of the ARV treatment situation in the Sakassou Health District.



Source: Sakassou Health District, 2019 Production: KONAN Yannick

Map 6. Distribution of the treatment situation for PLHIV in the Sakassou health district

Discontinuation of ARV treatment among PLHIV in the Sakassou health district: The duration of interruption varied between 2 weeks and 12 months. Interruptions of more than 3 months are high (Table 8). Interruption increases the risk of deterioration in the health of PLWHA. Poor compliance with ARV treatment allows the virus to remain active. Interruption leads to a rebound of the virus in the body (C. Fagard and B. Hirschel, 2002, p.1). Interruption of ARV treatment among PLWHA is linked to a number of factors, including excessive alcohol consumption, recourse to prayer camps, food shortages in rural households during lean periods, denial of serological status and stigmatization.

Table 8. ARV treatment discontinuation times for PLHIV

Duration (months)	Workforce
0,5	1
2	1
3	4
4	1
5	1
9	1
11	1
12	1
Total	11

Source: Sakassou Health District, 2019

At the 5% significance level, the p-value ($p = 0.02$) of the Bravais Pearson test reveals a significant influence of the use of prayer camps on the interruption of ARV treatment. There was also a significant correlation between food insecurity and interruption of ARV treatment. Prayer camps are places of hope for some HIV sufferers, who turn to God in despair at the prospect of lifelong treatment. In the Sakassou Health District, 4.7% of PLHIV have already attended a prayer camp, compared with 95.3% who have never done so. Figure 9 shows the distribution of PLWHA who have attended prayer camps.



Source: Sakassou Health District, 2019

Figure 9. Distribution of PHAs who have attended prayer camps (p.6)

Prayer camps are places of refuge and last resort, not just for PLWHA, but for all those suffering from illnesses that, depending on the population, have long been untreated by modern medicine. In prayer camps, illnesses such as mental disorders, Buruli's ulcer, tuberculosis and AIDS are sometimes attributed to magico-religious factors.

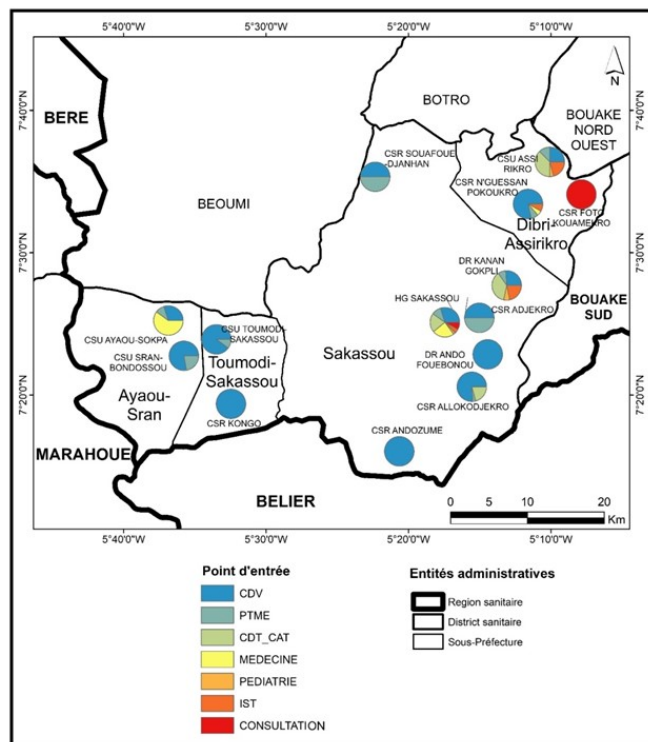
The point of entry for PLHIV into care: The various points of entry to care are the Voluntary Screening Center (VSC), the Mother-to-Child Transmission Protection Service (PMTCT), the Tuberculosis Screening Center (TSC), the Medicine Service, the Pediatrics Service, the Sexually Transmitted Infection (STI) Consultation and the General Consultation Service (table 9).

Table 9. Distribution of entry points for PLHIV into care

Entry points	Workforce	Percentage
CDV	163	47.70%
PMTCT	26	7.60%
CDT/CAT	63	18.40%
MEDICINE	31	9.10%
PEDIATRICS	12	3.50%
IST	33	9.60%
GENERAL CONSULTATION	14	4.10%
Total	342	100%

Source: Sakassou Health District, 2019

The voluntary testing center is the main entry point for most PLWHA in the Sakassou Health District. It is the entry point for 47.7% of PLHIV in this health territory. Next come the CDT service (18.4%), STI consultations (9.6%), the medicine service (9.1%), the PMTCT service (7.6%), the general consultation (4.1%) and pediatrics (3.5%). Pediatrics is the department that detects the fewest HIV-positive cases, as many efforts are made to prevent mother-to-child transmission.



Source: Sakassou Health District, 2019 Production: KONAN Yannick

Map 7. Spatial distribution of entry points for PLHIV in the Sakassou health district

VCTs are the main entry points for PLHIV seeking care in the Sakassou health district. However, PMTCT is becoming an important entry point, particularly in Souafoué Djanhan and Adjekro. While general consultations are the main entry point for PLWHA at the Fotokouamekro CSR.

DISCUSSION

Côte d'Ivoire discovered its first case of HIV/AIDS in 1985. In 1995, it created the national program to combat sexually transmitted diseases and tuberculosis (D.M. Kerouedan, 1998, p.35). With 460,000 PLWHA in 2014, Côte d'Ivoire is one of the worst-affected countries in the West and Central Africa (WCA) region, after Nigeria, Cameroon and the Democratic Republic of Congo, according to UNAIDS estimates, despite the progress made. The prevalence of HIV/AIDS in the general population, which was 4.7% in 2005, fell to 3.7% in 2011, with a strong female predominance of 4.6% and 2.9% among men (Ministry of Health and Public Hygiene, 2016, p.21). This high predominance of the female population in the headcount of People Living with HIV was also observed in the Sakassou Health District. The study showed that women accounted for 80% of PLHIV in this health district, compared with 20% of men. Our results are corroborated by those of the CIPHIA survey, which also revealed a feminization of the risk of contracting HIV/AIDS. The CIPIA survey revealed that HIV

prevalence was higher among women than men in several age groups, notably ages 20 to 24, 25 to 29, 35 to 39, 40 to 44, and 50 to 54. This difference was most pronounced among people aged 25 to 29, for whom HIV prevalence was around sixteen times higher in women (3.2%) than in men (0.2%) (CIPHIA, 2020, p.2). The majority of HIV sufferers are women, as women are subject to a number of vulnerabilities. Their vulnerability is both biological and socio-economic. Women are at greater risk of contracting the HIV virus because of the systemic effect of biological and socio-economic vulnerability. During sexual intercourse, women with very fragile sexual systems are 2 to 4 times more likely to contract HIV. The socio-economic vulnerability of women in African society stems from the fact that they have been brought up with the idea that the man makes all sexual decisions. In sub-Saharan Africa, women are also educated to serve men in the household. As a result of this tradition, women in this part of Africa have a low level of education and are economically dependent on their husbands (UNAIDS, 1997, p.3-4).

The prevalence of HIV/AIDS in Côte d'Ivoire evolves increasingly with age (Ministère de la Santé et de l'Hygiène Publique, 2016, p.21). Similar results were obtained in the Sakassou Health District. The study revealed that adults over 45 are the real at-risk populations. The risk of contracting HIV/AIDS was found to be higher in the over-45s than in other age groups. HIV/AIDS is an urban phenomenon on a national scale. However, this study revealed a predominance of PLWHA in rural areas to the detriment of urban areas in the Sakassou Health District.

Health care provision in Sakassou department is unevenly distributed. The uneven distribution of health facilities is a discriminating factor in access to ARV treatment. Access to ARV treatment is the ability to obtain the drugs needed for treatment from a health professional at the right time (COMMEYRAS *et al.*, 2006, p.163 cited by F. Rebouha, 2007, p.2). F. Rebouha (2007, p.5-6) reported the same spatial disparity in the location of health facilities in Oran, Algeria. According to the author, although the city of Oran has a health master plan for the provision of healthcare facilities, the city is faced with growing population needs and different social levels. The uneven distribution of health infrastructures can result in health discrimination according to social background. Inhabitants need to travel long distances to access ARV treatments (F. Rebouha 2007, p.5). Socio-demographic characteristics such as gender, age and marital status are discriminating factors that modulate the risk of exposure to HIV in the Sakassou Health District.

CONCLUSION

People living with HIV are part of vulnerable communities. They are subject to discrimination and economic insecurity. The socio-demographic profile of people living with HIV in the Sakassou Health District reveals that women are more vulnerable than men. The age structure of PLHIV revealed greater vulnerability among people aged over 45. To ensure the health security of the population in general, and of PLWHA in particular, the Sakassou Health District is covered by a dense hospital network comprising dispensaries, health centers and a general hospital. Despite the availability of healthcare services, access to antiviral drugs for PLHIV is hampered by mobility constraints, particularly in rural areas. The antiviral treatment regimen depends on the type of virus and the physiological

state of the HIV patient. The TDF-3TC-EFV-based regimen is used in most health centers in the Sakassou Health District. However, access to ARVs is hampered by functional isolation and financial constraints. Interruption of ARV treatment among the 3.2% of PLWHA is linked to a number of reasons, including excessive alcohol consumption, recourse to prayer camps, food shortages in rural households during the lean season, denial of serostatus and stigmatization. Improving access to antivirals for PLWHA is a key principle of the Sustainable Development Goals. The response to HIV/AIDS aims to promote the right to health, gender equality, employment and social protection.

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