Scientific Research Publishing

World Journal of AIDS, 2026, 16(1), 1-15
https://www.scirp.org/journal/wja
ISSN Online: 2160-8822
ISSN Print: 2160-8814

Barriers to the Adoption of Pre-Exposure Prophylaxis among Serodiscordant Couples in South Kivu

Jean de Dieu Biringanine Matata[1,2], Ghislain Bisimwa Balaluka[3], Christian Molima[4], André Ntaboba Muhalira[5,6,7], Gaspard Shabani Muganza[8,9], Placide Mugisho Buhendwa[5,10]

[1]Higher Institute of Medical Techniques KIROTSHE (ISTM KIROTSHE), Goma, Democratic Republic of the Congo
[2]Department of Monitoring and Evaluation, Diocesan Office of Medical Works of Bukavu (BDOM BUKAVU), Bukavu, Democratic Republic of the Congo
[3]Rectorate, Catholic University of Bukavu (UCB), Bukavu, Democratic Republic of the Congo
[4]Regional School of Public Health, Catholic University of Bukavu (UCB), Bukavu, Democratic Republic of the Congo
[5]Higher Institute of Medical Techniques Bukavu (ISTM BUKAVU), Bukavu, Democratic Republic of the Congo
[6]Directorate and Directorate of Programs, Diocesan Office of Medical Works of Bukavu (BDOM BUKAVU), Bukavu, Democratic Republic of the Congo
[7]Higher Official University of Bukavu, Bukavu, Democratic Republic of the Congo
[8]Higher Institute of Medical Techniques (ISTM), Nyangezi, Democratic Republic of the Congo
[9]Department of Medical Coordination, Diocesan Office of Medical Works of Bukavu (BDOM BUKAVU), Bukavu, Democratic Republic of the Congo
[10]Nyantende General Referral Hospital, South Kivu, Democratic Republic of the Congo
Email: jeanbiringa@gmail.com

How to cite this paper: Biringanine Matata, J.D., Bisimwa Balaluka, G., Molima, C., Ntaboba Muhalira, A., Shabani Muganza, G. and Mugisho Buhendwa, P. (2026) Barriers to the Adoption of Pre-Exposure Prophylaxis among Serodiscordant Couples in South Kivu. *World Journal of AIDS*, **16**, 1-15.
https://doi.org/10.4236/wja.2026.161001

Received: December 19, 2024
Accepted: March 15, 2026
Published: March 18, 2026

Abstract

Introduction: Pre-exposure prophylaxis (PrEP) has been introduced in the Democratic Republic of the Congo since 2016 as an innovative prevention strategy against HIV transmission, targeting serodiscordant couples in particular. This study aimed to explore the practices of serodiscordant couples to reduce the risk of HIV contamination, their level of knowledge about PrEP, its use and the obstacles encountered in South Kivu province. **Materials and Methods:** This qualitative study was conducted in October 2022 at the Centre de Santé Muhungu Diocésain, in the commune of Ibanda in Bukavu, South Kivu province. Sixteen serodiscordant couples were purposively selected to participate in individual semi-directive interviews, guided by a structured tool. An inductive thematic analysis of the transcripts identified the main themes. **Results:** Serodiscordant couples had little or no knowledge of PrEP, which explains its almost non-existent use. The majority of participants reported using condoms as a means of prevention, but this practice was often abandoned after around four months, regardless of the viral load status of the HIV-positive

partners. The lack of information available on PrEP and the disorientation of some couples by healthcare providers are among the main barriers to its use. **Conclusion:** For a better uptake of PrEP, it is essential to train and inform all healthcare providers on this approach so that they can effectively sensitize serodiscordant couples to HIV.

Keywords

Serodiscordant Couples, Pre-Exposure Prophylaxis (PrEP), Barriers, South Kivu, Human Immunodeficiency Virus (HIV)

1. Introduction

What is PrEP?

PrEP is the daily (or, in some cases, on-demand) intake of antiretroviral drugs by an HIV-negative person to prevent HIV infection if they are exposed to the virus. It is recommended as part of a comprehensive prevention strategy, including condoms, testing, and antiretroviral therapy (ART) for HIV-positive individuals [1].

Effectiveness of PrEP in serodiscordant couples

Reduction of transmission risk

- In a large study conducted in serodiscordant couples in Africa, PrEP use by the HIV-negative partner reduced the incidence of HIV by ~95% (0.24 cases per 100 person-years with PrEP) compared to what would have been expected without PrEP [2].
- In another program integrated into HIV care, adherence to PrEP was high with very few new infections observed [2].
- Some studies show that, with strict adherence, effectiveness can reach up to approximately 92% - 99% reduction in the risk of transmission in different risk groups [3] (**Table 1**).

Table 1. Comparison of PrEP with other methods.

Method	Estimated reduction in the risk of HIV transmission	Key notes
PrEP (high adherence)	~95% or more	Very effective for HIV-negative individuals if taken regularly [2].
Condoms (latex)	~85% - 95%	They also protect against other STIs (chlamydia, syphilis, etc.), which PrEP does not [4].
Antiretroviral therapy (ART) of the HIV-positive partner with viral suppression		The concept U = U (Undetectable = Untransmittable) means that a persistently undetectable viral load prevents virtually all transmission [5].

Importance of Adherence (Compliance)

The effectiveness of PrEP depends heavily on adherence to the prescribed regimen:

- Adherence ≥ 80% of doses is associated with the highest levels of effectiveness (≈90%+) [6].

Without good adherence, the risk of transmission increases [6].

According to Dr. Oluyemisi Akinwande, HIV specialist at the World Health Organization (WHO) office in Sierra Leone, it is possible for a couple to have one partner who is HIV-positive and the other who is not. This is known as a serodiscordant couple [7].

In many of these serodiscordant couples, people are unaware of their partner's HIV-positive status. Prevention strategies are still not responding appropriately.

The prevalence of HIV-serodiscordant couples worldwide is as high as 50% of HIV-positive people in long-term relationships with HIV-negative partners, according to the WHO.

In sub-Saharan Africa, the prevalence of discordant couples is between 3% and 20% of the general population. This figure rises to 20% - 35% in couples where one partner is on ARV treatment [8].

For the DRC, during the Demographic and Health Survey in the Democratic Republic of the Congo (EDS-RDC II), data made it possible to specify the seroprevalence status of both spouses. For 4178 cohabiting couples, these data report that for 98.0% of couples, both spouses were seronegative. In 0.2% of couples, both spouses were HIV-positive, and in 1.4% of cases, only one spouse was HIV-positive. The latter category of couples (also known as discordant couples) comprises 0.9% of couples in which the woman is HIV-positive and 0.5% of couples in which the man is HIV-positive [8].

In South Kivu province, the number of new HIV-infected people put on antiretroviral treatment over the last three years rose from 241 in 2021; 324 in 2020 and 249 in 2019.

There were 124 HIV-negative (HIV−) women of HIV-positive (HIV+) partners and 108 HIV-negative (HIV−) male partners of HIV-positive (HIV+) women in 2021. In 2020, there were 54 HIV− women of HIV+ partners and 141 HIV− male partners of HIV+ women, while in 2019, the figure was 58 HIV− women of HIV+ partners and 86 HIV− male partners of HIV+ women.

In this province, of the 22,685 people on antiretroviral (ARV) treatment in 2021, only 1987 (8.75%) had access to viral load testing. Of 19,641 people living with HIV on ARV treatment in 2020, only 1152 had access to viral load, *i.e.* 5.86% [9].

Pre-exposure prophylaxis is a recent method of offering a drug against human immunodeficiency virus infection to an uninfected person [10].

In addition, the data available in the District Health Information Software 2 (DHIS2) only show PrEP use by sex workers, injecting drug users, men who have sex with men and transgender people. These data show that the number of female sex workers having used PrEP is 118 in 2021; 357 in 2020 and 200 in 2019. For

men who have sex with men, the number who have used PrEP is 0 in 2021, 1 in 2020 and 0 in 2019, and for injecting drug users (IDUs) 0 in 2021, 1 in 2020 and 0 in 2019 [2].

However, the DHIS2 software does not include data on PrEP use by serodiscordant couples.

In South Kivu, few studies have focused on understanding how serodiscordant couples use this prophylactic approach in their married life to date, and what obstacles they might encounter.

In the present study, we set out to understand how HIV serodiscordant couples in urban settings use PrEP. Our fundamental question is what barriers HIV-serodiscordant couples might face in using this approach.

Our study thus aims to describe the knowledge and barriers to the use of this approach by HIV serodiscordant couples in the city of Bukavu.

The results of our study will enable the various players involved in caring for people affected by the HIV pandemic to implement context-specific strategies to reduce the risks faced by this category of the population.

2. Materials and Methods

2.1. Choice of the Sample Size and Its Representation of the Broader Population

2.1.1. Study Environment

The study was carried out at the MUHUNGU DIOCESAIN Health Center, located in the IBANDA health zone in Bukavu, South Kivu province, DRC. This center, managed by the Archdiocese of Bukavu through the Diocesan Office of Medical Works of Bukavu (BDOM BUKAVU), cares for a large number of patients, including 389 undergoing antiretroviral treatment in 2022, 24 of whom are serodiscordant couples.

2.1.2. Type of Study

This is a qualitative study conducted from October 2 to 30, 2022.

2.1.3. Selection of Participants

The study targeted serodiscordant couples living in Bukavu, whether married or not. Convenience sampling was used to recruit participants from among those followed up at the health center. A total of 16 couples agreed to take part in the study, with no refusals recorded.

In a qualitative study, the sample size is not intended to be statistically representative of the general population, but rather to enable an in-depth understanding of the phenomenon under study. The choice of 16 serodiscordant couples was guided by the principle of data saturation, which means that the addition of new participants no longer brought any new or relevant information to the analysis.

The convenience sampling used enabled us to recruit couples already being followed at a health center, thus guaranteeing a certain homogeneity of context while ensuring a diversity of experience. Although the generalizability of the results to

all serodiscordant couples in Bukavu is limited, the richness of the data collected and the depth of the analysis enable solid conclusions to be drawn that are transferable to similar contexts.

Thus, the sample size was judged adequate not on the basis of a strict numerical criterion, but because it enabled saturation of the themes explored, a fundamental criterion in qualitative research.

2.2. Description of the Coding Process, Including Intercoder Reliability Checks and the Development of Themes

Data were collected in October 2022 via semi-structured interviews conducted by a trained interviewer. A French interview guide, translated into Swahili, was used to explore topics such as use of pre-exposure prophylaxis (PrEP) and viral load management. Interviews lasted an average of 24.9 minutes and were recorded using a Dictaphone.

2.2.1. Data Analysis

The data collected was transcribed in its entirety and then analyzed using a thematic approach, enabling us to identify the main trends and dynamics within the participants' testimonies.

2.2.2. Coding Process

Inductive coding was applied, meaning that codes and themes emerged directly from the data, without any predefined framework. The analysis followed the following steps:

1) Familiarization with the data: In-depth reading of transcripts to identify recurring ideas.

2) Initial coding: Assigning open codes to relevant text segments according to the content evoked.

3) Grouping of codes: Identification of similarities and grouping of codes into broader categories.

4) Theme development: Structuring categories into broader themes, such as HIV prevention practices and barriers to PrEP use.

5) Revision and refinement: Checking the coherence and relevance of the themes against the raw data and research objectives.

2.2.3. Reliability Control between Encoders

To guarantee the reliability and rigor of the analysis, several strategies were implemented:

Double coding: Two researchers independently coded a subset of the transcripts. Differences were discussed and resolved to arrive at a consensus.

Concordance rate calculation: A Cohen's Kappa coefficient was used to measure agreement between coders and ensure coding consistency.

Validation by triangulation: Results were compared with field observations and discussions with experts to reinforce their validity.

2.2.4. Theme Development

After consolidation of the codes, several key themes emerged, reflecting participants' experiences and perceptions. The main themes identified include:

- HIV prevention practices: Measures adopted by serodiscordant couples to reduce the risk of transmission.
- Barriers to PrEP use: cultural, economic and medical factors explaining the low uptake of this preventive strategy.
- Role of medical follow-up and community support: Influence of health services and support groups on adherence to preventive measures.

Finally, the results obtained were compared with the existing literature in order to assess their consistency and identify convergences or divergences with other studies on the subject.

2.2.5. Ethical Considerations

The study complied with ethical principles and the necessary authorizations were obtained beforehand. An informed consent form was submitted to participants to ensure their voluntary and confidential participation.

3. Results

Table 2. Respondent characteristics.

Age, sex, serology and address of each couple's partners
F, 52 yrs VIH+ et M, 55 yrs VIH− ZS BAGIRA
M, 45 yrs VIH+ et F, 41 yrs VIH− ZS BAGIRA
F, 40 yrs VIH+ et M, 45 yrs VIH− ZS KADUTU
F, 65 yrs VIH+ et M, 75 yrs VIH− ZS KADUTU
F, 48 yrs VIH+ et M, 53 yrs VIH− ZS KADUTU
F, 60 yrs VIH+ et M, 65 yrs VIH− ZS KADUTU
F, 52 yrs VIH+ et M, 58 yrs VIH− ZS KADUTU
M, 57 yrs VIH+ et F, 50 yrs VIH− ZS KADUTU
M, 40 yrs VIH+ et F, 34 yrs VIH− ZS IBANDA
F, 29 yrs VIH+ et M, 29 yrs VIH− ZS IBANDA
F, 69 yrs VIH+ et M, 70 yrs VIH− ZS IBANDA
M, 53 yrs VIH+ et F, 27 yrs VIH− ZS IBANDA
M, 51 yrs VIH+ et F, 29 yrs VIH− ZS IBANDA
M, 40 yrs VIH+ et F, 38 yrs VIH − ZS IBANDA
F, 50 yrs VIH+ et M, 52 yrs VIH− ZS IBANDA
F, 32 yrs VIH+ et M, 36 yrs VIH− ZS IBANDA

*M means male; *F means female; *ZS means health zone; *HIV+ means positive serology; *HIV− means negative serology.

A total of 16 couples took part in the interviews, including 8 from the IBANDA

HZ, 6 from the KADUTU HZ and 2 from the BAGIRA HZ (Table 2).

The following themes emerged from our analysis

- Means used by couples to prevent HIV infection in their previously HIV-negative partner.
- The reasons why serodiscordant couples do not use PrEP to prevent HIV infection in their previously HIV-negative partner.

1) Means used by couples to prevent HIV infection in their previously HIV-negative partner

A minority opinion speaks of the use of PrEP as a means of preventing HIV infection in their couples. Fidelity to condom use is used by some serodiscordant couples, while other couples, for one reason or another, stop using condoms, usually without prior assurance of an undetectable viral load in the HIV-positive partner. On the other hand, the opinions of some couples show that serodiscordant couples do not use any means of preventing HIV in their HIV-negative partner.

"*He takes them when we're together as a family, but when he's away on a trip he leaves them first*" *F, 48 y HIV+, KADUTU.*

"*I am infected with HIV, but my wife is not. In the beginning we used condoms to prevent my wife from becoming infected, but we haven't used them for years now; I didn't know that the level of viral load had to be taken into account before stopping condom use*" *M, 40 yrs HIV+, IBANDA.*

According to respondents, PrEP is used too little. Those who do use condoms are using them ineffectively, because on the one hand, condoms have been discontinued because they have not been tolerated, or because the sexual pleasure they provide is unsatisfactory, and on the other hand, they have been discontinued without any prior assessment of the HIV+ partner's viral load. The majority opinion of the serodiscordant couples we met was that they did not use any preventive means.

"*It's my husband who's infected with HIV, but I'm not. At first, when I found out he was infected, he hid it from me. To protect myself, I started spending the night on the ground in our bedroom to avoid any sexual contact. But after a while, I benefited from the advice of the carer who gave me some guidelines and we resumed our cohabitation, even sexual, but I don't use any means of prevention at present*" *F, 38, HIV−, IBANDA.*

2) Reasons why serodiscordant couples do not use PrEP to prevent HIV infection in their previously HIV-negative partner

a) Lack of information about the PrEP approach

According to participants, serodiscordant couples do not use PrEP because they lack information about the existence of the PrEp approach. Nevertheless, they would take it if they had the information, as their experience with condom use has proved its limitations, in their view. Couples seem to be poorly informed about PrEP, which constitutes a barrier to the use of PrEP by serodiscordant couples.

"*It's my husband who's infected with HIV, but I'm not. At first, when I found out he was ill, he hid it from me; in order to protect myself, I started spending the*

night on the floor in our bedroom to avoid any sexual contact. But after a while, I benefited from the advice of a carer who gave me some guidelines and we resumed our cohabitation, even sexually, but I'm not using any means of prevention at the moment. I didn't know if there were any drugs I could take to avoid being contaminated, and I only get tested every three months" F, 38, HIV– IBANDA.

"*I'm the one infected with HIV; we use condoms to protect my wife, but most of the time I have to buy them at a cost of 3 for 500 Congolese francs. It's a financial cost for me, and it's a burden because every week I have to spend money on this, so if I knew that there was a drug option that my wife could take, we could go for it, but I've never had any information about it" M, 51, HIV+ IBANDA.*

b) Disorientation of couples by a healthcare provider

In some serodiscordant couples, HIV-negative partners who were aware of the PrEP approach had wanted to start with PrEP, but were denied access by the provider on the grounds that he or she could not prescribe ARVs to a person who was not HIV-infected—another barrier to PrEP use by discordant couples.

"*At one point, my husband had received information from a health care provider in the city about the existence of antiretroviral drugs that he could also start taking to prevent contamination at home, and the health care provider had made an appointment for him to come to their health facility; Unfortunately, on arriving at the health facility, the other provider my husband met proceeded to take the sample for HIV testing, the result came out negative, my husband showed him that he had come for ARVS which could protect him against contamination because his wife is infected and is on ARV treatment but the provider he met refused because he cannot prescribe ARVs to someone who does not have HIV; my husband came home and didn't have the chance to have them any more" F, 50 yrs, HIV+, KADUTU.*

Concrete examples of disorientation observed in the study

1) Unjustified refusal of access to PrEP

As illustrated in the testimonial quoted, an HIV-negative patient wishing to start PrEP was denied access to treatment by a healthcare provider who wrongly considered that ARVs could only be administered to people already infected with HIV.

This example shows a misunderstanding of current guidelines, which recommend PrEP as an effective strategy for people at high risk of infection, including HIV-negative partners of serodiscordant couples.

2) Conflicting information between healthcare providers

A first provider had informed the patient of the existence of PrEP and made an appointment for him to take advantage of it. However, another provider, in the same facility, cancelled the appointment because of a misunderstanding about the indication for treatment.

This type of experience can generate confusion among beneficiaries, leading them to abandon the PrEP option despite its proven efficacy.

3) Lack of referral to appropriate structures

In several cases, patients were not redirected to specialized services or structures actually offering PrEP.

This reflects a lack of coordination between care providers and a lack of a clear pathway for patients seeking HIV prevention.

Consequences of Disorientation on Access to PrEP

- Loss of trust in the healthcare system, which can discourage serodiscordant couples from seeking other prevention options.
- Abandonment of protection strategies, exposing HIV-negative partners to an increased risk of infection.
- Persistence of misconceptions about PrEP and ARVs in general, hindering their adoption in the community.

Recommendations to limit patient disorientation

- Reinforce training of healthcare providers on updated PrEP protocols.
- Standardization of clinical practices to ensure uniform access to PrEP without contradictions between providers.
- Establishment of clear information tools for beneficiaries, explaining the options available and how they work.
- Improved referrals between care services to ensure that patients are efficiently referred to centers offering PrEP.

Interpretation and contextualization of results

Analysis of the testimonies of serodiscordant couples highlights complex dynamics influencing the adoption of HIV prevention strategies, including the limited use of PrEP. These results must be interpreted through the prism of the social, cultural and systemic factors that shape prevention behavior and access to health services.

1) Social and cultural factors influencing the use of prevention strategies

In many testimonies, there is a low acceptance of condoms due to considerations linked to sexual pleasure, the perception of the couple and cultural norms. In some contexts, condom use may be perceived as a challenge to marital trust and fidelity, deterring partners from continued use.

In addition, misinformation and lack of awareness play a key role in the abandonment of prevention measures. For example, the discontinuation of condom use without a prior viral load check reflects a lack of guidance for serodiscordant couples on good HIV prevention practices.

Economic dependence is also a limiting factor. Some participants mention the cost of condoms as a financial constraint, underlining the role of economic inequality in access to prevention methods. Similarly, the lack of information on PrEP as an accessible and effective alternative limits its uptake.

2) Health system factors and institutional obstacles

Another striking element is the disorientation of couples by healthcare providers, revealing shortcomings in the training and information of healthcare professionals on PrEP. The testimony of a participant who was refused a PrEP prescription because of his HIV-negative status illustrates a misunderstanding of this

preventive strategy by some providers.

This type of misinformation can lead to a loss of confidence in the healthcare system and discourage serodiscordant couples from actively seeking preventive solutions. It also highlights the need for ongoing training of healthcare providers to ensure appropriate care in line with international recommendations on HIV prevention.

In addition, the low coverage (availability) of HIV services in the health zones of South Kivu may explain the discrepancies observed in the adoption of prevention strategies. The geographical and logistical accessibility of PrEP, as well as the existence of targeted awareness campaigns, would largely influence its integration into the behavior of serodiscordant couples.

3) Towards better integration of PrEP into prevention strategies

These results suggest the need to strengthen health education, both among beneficiaries and providers, to encourage better PrEP uptake. This includes:

- Increased awareness of the importance of viral load monitoring before condom cessation.
- Reinforced training for healthcare providers on the indication and prescription of PrEP, to avoid unjustified refusals.
- Financial or subsidized coverage for condoms and PrEP, particularly for couples in precarious situations.
- Communication adapted to sociocultural norms to promote the acceptability of prevention strategies among serodiscordant couples.

Improving access to and acceptance of PrEP in these communities therefore requires a multi-sectoral approach, involving healthcare providers, public health decision-makers and community players, in order to remove the social, economic and institutional barriers that limit its use.

4. Discussion

The specific objectives of the study were to understand how PrEP is known and used by HIV serodiscordant couples in the city of Bukavu and to understand the barriers to its use faced by these couples.

With regard to barriers to PrEP use, two main barriers were identified: firstly, the lack of information on the part of HIV serodiscordant couples about the existence of PrEP, and secondly, the disorientation of PLWHA who had been informed of the existence of PrEP by certain caregivers.

As far as the use of a prevention method is concerned, the minority of respondents use PrEP as a prevention method. A sufficient number of couples do not use any means of prevention.

Some couples use condoms all the time, but they usually buy them, and a sufficient number of couples started out using condoms but gave them up some time later for one reason or another. This result is similar to that of a study carried out among serodiscordant couples followed at the day hospital of the CHU in Ouagadougou (Burkina Faso), which showed that condom use was not systematic among couples [11].

Concerning the reasons for their preference for one or other method of prevention, or for not using any means of prevention, it emerges that those who currently use condoms do so for lack of an alternative means if not they would leave because financially costly for them. Some couples who have used condoms have given them up after a certain period, because they were no longer satisfied, and some could no longer stand the practice.

This result is almost similar to that of a study carried out in Burundi, which showed that the main factors for non-use of condoms include reduced sexual pleasure, the embarrassment they create, and suspicion between known and unreliable partners [12].

4.1. Barriers to the Use of Prep by Serodiscorant Couples

4.1.1. Lack of Information about PrEP

This is the minority opinion of the couples interviewed, and the majority stated that they had not yet heard of PrEP. This result is close to an exploratory survey carried out in 2017 among African and Caribbean populations living in Ile-de-France on the acceptability and disincentives of a new HIV prevention offer on PrEP. This showed that the people we met had been made aware of HIV prevention, but most often hadn't yet heard of PrEP. Once explained, PrEP was seen as an acceptable new prevention strategy [13].

According to a study conducted by Josalie Trudelles on the island of Montreal in May 2022, the first published research on PrEP showed that it was a little-known method among certain Men Who Have Sex With Men (MSM) [14].

A study carried out in Kenya in 2019 on the impact of interventions affecting the HIV infection care cascade and pre-exposure prophylaxis in south-west Kenya had shown that PrEP implementation requires 40% coverage in the high-risk population to be as effective as a 95-95-95 care cascade According to UNAIDS targets [15].

Lack of information about the existence of PrEP is one of the barriers to its use among the serodiscordant couples we met in Bukavu.

This lack of information may be linked on the one hand to insufficient knowledge on the part of healthcare providers who could provide couples with good information about PrEP, and this situation would be in line with the findings of a study carried out in the USA in 2020, which showed that lack of knowledge on the part of providers was an obstacle to the prescription of PrEP [16].

In another study carried out in the USA in 2020 on Obstacles to wider use of pre-exposure prophylaxis, it had been found that many at-risk people do not use PrEP and had not heard of PrEP and would therefore not be able to talk to their doctor about it [17].

4.1.2. Disorientation of Serodiscordant Couples by Certain Healthcare Providers in the Face of PrEP

Some serodiscordant couples, whose HIV-negative partners had been informed of the existence of the PrEP approach, had wanted to start with PrEP. However, when they were referred to a health facility, they reported that they were disoriented

by other health care providers, who claimed that they could not prescribe ARVs to a person who was not HIV-infected, and that the HIV-negative partner had therefore not started. This obstacle on the part of the health care provider is an impediment to adherence to PrEP. This finding is consistent with that of a Canadian study on Optimal Health and Well-Being in relation to HIV, which showed that socially imposed barriers can make it more difficult to seek health services. If the barrier comes from healthcare providers, sufferers may actively avoid the healthcare system. They are less likely to use the healthcare system and, as a result, are less likely to receive HIV treatment and support [18].

This position taken by the provider that he could not prescribe ARVs to a person who is not infected with HIV is contrary to the findings of a systematic review and meta-analysis of clinical effectiveness, which showed in 2022 that there is high-certainty evidence that PrEP is safe and, assuming adequate adherence, effectively prevents HIV in serodiscordant couples, and that clinicians and policymakers can therefore decide to recommend PrEP [19].

A paper published in 2011 on task shifting to improve paediatric HIV care showed that any approach can be included in the majority of national standards and protocols, but its implementation faces numerous obstacles, including poorly implemented human resource training and mentoring, and unadapted care organization [20].

A cross-sectional online survey of HIV PrEP uptake among primary care physicians that was conducted in Norway in 2017 had shown that GPs' knowledge of PrEP is crucial for patient access to PrEP. Educational interventions should be considered to improve GP PrEP uptake capabilities, such as easily accessible PrEP guidelines and training opportunities [11].

Clarification of the concept of "provider disorientation"

For the purposes of this study, "provider disorientation" refers to situations where patients or their partners receive inaccurate, contradictory or incomplete information about accessing HIV prevention services, including PrEP. This disorientation can result from a lack of training for providers, unfamiliarity with existing protocols, or prejudices about the use of ARVs for preventive purposes.

5. Limitations of the Study

This study has a number of important limitations.

5.1. Lack of Prior Information about PrEP

Some couples with no prior knowledge of PrEP were unable to share their specific perceptions on the subject, which limited a full understanding of their attitudes towards this prevention method.

5.2. Contribution of the Qualitative Approach

Although the qualitative approach provided detailed insights into prevention practices among serodiscordant couples, it does not allow the results to be generalized

to a wider population, as would a quantitative study.

5.3. External Experiences

The study also took into account couples' experiences in other care settings, highlighting an important barrier: the disorientation of some PrEP-eligible couples, often due to a lack of training or information from care providers.

Despite these limitations, this study offers valuable insights into the obstacles encountered in implementing PrEP in this specific context.

6. Conclusions

This study highlights major challenges in preventing HIV transmission among serodiscordant couples in South Kivu province. The results show that pre-exposure prophylaxis (PrEP) remains largely unknown and little used by these couples, mainly due to a lack of information about its existence and the disorientation of some couples by ill-informed healthcare providers.

The preventive methods used, such as condoms, are often abandoned or inadequately applied, notably without taking into account the level of viral load of the HIV-positive partner. What's more, a significant proportion of couples use no prevention strategy at all, increasing the risk of transmission. These findings underline the urgent need to raise awareness and train healthcare providers in the PrEP approach, as well as to develop targeted education campaigns to inform serodiscordant couples. By improving access to accurate information and adapted services, it would be possible to optimize the use of PrEP and thus reduce the risk of HIV transmission in this population.

Acknowledgements

I would like to express my deep gratitude to my valued co-authors for their support and commitment throughout this work.

Many thanks to Prof. Ghislain Bisimwa Balaluka for his invaluable scientific supervision, whose wise counsel greatly contributed to the quality and rigor of this project.

I am also very grateful to Christian Molima for his scientific and methodological assistance, which enabled me to strengthen the research approach and accurately analyze the various aspects of the project.

My thanks also go to André Ntaboba, Placide Mugisho Buhendwa, and Gaspard Shabani Muganza for their specific contributions, notably on technical aspects, in-depth analyses and financial support. Their expertise and availability were essential to the success of this collaboration.

Thank you all for your commitment, professionalism and invaluable collaboration.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Organisation mondiale de la Santé (2026) L'OMS recommande la prophylaxie pré-exposition orale pour les hommes qui ont des rapports sexuels avec des hommes. https://www.emro.who.int/fr/asd/asd-infocus/pre-exposure-prophylaxis.html?utm

[2] Heffron, R., Ngure, K., Odoyo, J., Bulya, N., Tindimwebwa, E., Hong, T., *et al.* (2018) Partners Demonstration Project Team. Pre-Exposure Prophylaxis for HIV-Negative Persons with Partners Living with HIV: Uptake, Use, and Effectiveness in an Open-label Demonstration Project in East Africa. *Gates Open Research*, **1**, Article 3. https://pubmed.ncbi.nlm.nih.gov/29355231/?utm

[3] INSPQ (2016) Prophylaxie préexposition: Analyse des faits. https://www.inspq.qc.ca/espace-itss/prophylaxie-preexposition-analyse-des-faits?utm

[4] McMahon, J.M., Myers, J.E., Kurth, A.E., Cohen, S.E., Mannheimer, S.B., Simmons, J., *et al.* (2014) Oral Pre-Exposure Prophylaxis (PrEP) for Prevention of HIV in Sero Discordant Heterosexual Couples in the United States: Opportunities and Challenges. *AIDS Patient Care and STDs*, **28**, 462-474. https://pmc.ncbi.nlm.nih.gov/articles/PMC4135325/?utm

[5] HIV Partners (2024) HIV Treatment as Prevention. https://www.cdc.gov/hivpartners/php/hiv-treatment/index.html?utm

[6] O Murchu, E., Marshall, L., Teljeur, C., *et al.* (2022) Oral Pre-Exposure Prophylaxis (PrEP) to Prevent HIV: A Systematic Review and Meta-Analysis of Clinical Effectiveness, Safety, Adherence and Risk Compensation in all Populations. *BMJ Open*, **12**, e048478. https://bmjopen.bmj.com/content/12/5/e048478?utm

[7] OMS (2022) Learning to Live as a Couple When one Partner is HIV-Positive in Sierra Leone. OMS. https://www.afro.who.int/fr/node/10800

[8] Ministère du Plan et Suivi de la, Mise en œuvre de la Révolution, et de la Modernité (2014) Deuxième enquête démographique et de santé (EDS-RDC II 2013-2014). https://www.unicef.org/drcongo/media/1046/file/EDS-RDC%20II%202013-2014.pdf

[9] (2022) DHIS2 Pivot. http://https://snisrdc.com/dhis-web.commos/security/login.action

[10] Trichet, M. and Peiffer-Smadja, N. (2022) Place de la prophylaxie préexposition pour prévenir la transmission du VIH. *Actualités Pharmaceutiques*, **61**, 36-40. https://doi.org/10.1016/j.actpha.2022.07.010

[11] Guira, O., Tiéno, H., Sawadogo, S. and Drabo, J.Y. (2013) Sexualité et risque de transmission du VIH chez les couples sérodiscordants suivis à l'hôpital de jour du CHU de Ouagadougou (Burkina Faso). *Bulletin de la Société de pathologie exotique*, **106**, 43-47. https://doi.org/10.1007/s13149-012-0271-8

[12] Ntirampeba, E. and De Sutter, P. (2017) Les facteurs qui influencent la faible utilisation des préservatifs par la population sexuellement active du Burundi. *Sexologies*, **26**, 228-235. https://doi.org/10.1016/j.sexol.2017.04.001

[13] Hadj, L., Desgrées du Loû, A., Dupont, J., Nguyen V.K, *et al.* (2017) Acceptabilité et freins chez les populations africaines et caribéennes vivant en Ile-de-France d'une nouvelle offre de prévention du VIH: Le Truvada en prophylaxie préexposition (PrEP): Une enquête exploratoire.

[14] Trudel, J. (2022) À l'ère de la prévention combinée: Facteurs associés au recours aux stratégies hautement efficaces, PrEP et condom, chez les HARSAH.

[15] (2022) Impact des interventions impactant la cascade de soin de l'infection VIH et la

prophylaxie préexposition dans le sud-ouest kenyan. Lecteur amélioré Elsevier.

[16] Pleuhs, B., Quinn, K.G., Walsh, J.L., Petroll, A.E. and John, S.A. (2020) Health Care Provider Barriers to HIV Pre-Exposure Prophylaxis in the United States: A Systematic Review. *AIDS Patient Care and STDs*, **34**, 111-123. https://doi.org/10.1089/apc.2019.0189

[17] Mayer, K.H., Agwu, A. and Malebranche, D. (2020) Barriers to the Wider Use of Pre-Exposure Prophylaxis in the United States: A Narrative Review. *Advances in Therapy*, **37**, 1778-1811. https://doi.org/10.1007/s12325-020-01295-0

[18] Santé et bien-être optimaux en matière de VIH: Document d'opinion. https://www.realizecanada.org/wp-content/uploads/FINAL-Optimal-Health-and-Wellbeing-in-HIV-Opinion-Paper_FR-CA.pdf

[19] O Murchu, E., Marshall, L., Teljeur, C., Harrington, P., Hayes, C., Moran, P., *et al.* (2022) Oral Pre-Exposure Prophylaxis (prep) to Prevent HIV: A Systematic Review and Meta-Analysis of Clinical Effectiveness, Safety, Adherence and Risk Compensation in All Populations. *BMJ Open*, **12**, e048478. https://doi.org/10.1136/bmjopen-2020-048478

[20] vih.org (2023) La délégation des tâches pour améliorer la prise en charge pédiatrique du VIH. https://vih.org/20120529/la-delegation-des-taches-pour-ameliorer-la-prise-en-charge-pediatrique-du-vih/