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Four years later: Do South Africans know what pre-exposure prophylaxis for HIV is?

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ABSTRACT

HIV incidence remains high among South Africans, with low uptake of preventative measures such as condom use. Pre-exposure prophylaxis (PrEP), which protects HIV-negative individuals from infection, was first introduced in SA in 2016. This study determined the knowledge of PrEP among university students ($n = 282$) and primary health care clinic users ($n = 358$) in KwaZulu-Natal, South Africa. Data were collected using a cross-sectional survey. The study population was at high-risk of HIV infection, with early age of sexual debut, multiple concurrent sexual partners and inconsistent condom usage. Only 12.3% ($n = 79$) stated that they had a full understanding of PrEP, which was higher among university students (9.8%; $n = 63$) than clinic users (2.5%; $n = 16$; $p < 0.001$). Specific PrEP knowledge was, however, low. Health Science students did not have a better knowledge than students from other faculties. Neither did users of clinics offering PrEP have a better knowledge than users of clinics not offering PrEP. Moreover, few participants (15%; $n = 96$) were aware of the availability of PrEP at their local clinic. Interventions to address the low level of PrEP knowledge within the population are required, to reduce the high HIV incidence.

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HIV prevention; clinic users; pre-exposure prophylaxis; South Africa; students

Introduction

South Africa is the epicentre of the HIV pandemic and 20% of the world's HIV infections occur in this country, with the highest incidence in the province of KwaZulu-Natal. While total new infections have decreased by 40 000 from 2017 to 2019, the rate of new infections remains disturbingly high in young females aged 15–24 (Allinder & Fleischman, 2019; UNAIDS, 2020).

Although condoms are currently one of the most efficient methods of preventing infections, especially in sexually active youth, improper and inconsistent usage hinders success rates (Haffejee, Koorbanally, et al., 2018; Muchiri et al., 2017). In spite of free availability, numerous awareness campaigns and health programmes, condom usage remains low among young adults (Haffejee, Koorbanally et al., 2018; Muchiri et al., 2017). The Human Sciences Research Council (2012), recorded a 17.7% decrease in condom usage between 2008 and 2012, among 15–25-year-old males, while an 8% decrease in condom usage was recorded in 25–49-year-old males (Shisana et al., 2014). Perceived risk of HIV infection did not significantly improve the consistency of condom usage among the youth (Muchiri et al., 2017).

For many South African youth living in communities with high HIV infection rates, condom usage is not considered critical due to the stoical view that contracting HIV is inevitable (Allinder & Fleischman, 2019). Furthermore, gender inequality and coerced sexual relations make it difficult for females to negotiate condom use (Bekker et al., 2015; Haffejee & Maksudi, 2020; South African Child Gauge, 2015). Moreover, economic insecurity may lead to transactional sex and financial dependence of the young females on their male partners (Haffejee, Koorbanally et al., 2018; South African Child Gauge, 2015). Usually in this "sex for cash" scenario, there is a significant age difference between the two individuals, thus further exacerbating the condom negotiating process (Bekker et al., 2015). Condom usage is thus insufficient to control the HIV pandemic amongst the youth. To stem the incidence of new infections, the focus needs to shift to other methods of HIV prevention.

Pre-exposure prophylaxis (PrEP), a user-dependent preventative measure, is an orally administered tablet, which trades as Truvada® and contains the ingredients tenofovir disoproxil fumurate and emtricitabine (PrEP Watch, 2017). The prophylaxis can be taken by HIV-negative individuals to protect them from infection

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and was first introduced in SA in 2016. PrEP disrupts the HIV transmission cycle and a single daily dose of oral PrEP can decrease susceptibility to infection by 99% (Allinder & Fleischman, 2019). However, the South African rollout of PrEP, since its introduction in 2016, has been slow and inadequate, with a crucial disparity occurring between policy and implementation (Allinder & Fleischman, 2019).

According to the National Development Plan for SA, focus is placed on reducing HIV prevalence by 2030 incorporating the UNAIDS fast track approach of 90–90–90 goals, in conjunction with PrEP usage (PrEP Watch, 2017). The key factor in achieving this goal will be to interrupt HIV infection and transmission in high-risk individuals, by ensuring that potential users have the proper knowledge to allow them to make informed choices on prevention and treatment of HIV (Allinder & Fleischman, 2019). The knowledge of PrEP among potential users in South Africa is unknown.

The aim of this study was to determine the knowledge of PrEP among university students and primary health care (PHC) clinic users in KwaZulu-Natal, South Africa.

Methods

Study design and setting

This cross-sectional study was conducted between March and October 2019. Participants were recruited from three provincial PHC clinics in KwaZulu-Natal, namely: Chesterville (Durban), Central City and Sobantu (Pietermaritzburg) and from three campuses of the Durban University of Technology namely: Indumiso (Pietermaritzburg), ML Sultan and Steve Biko (Durban). Two of the PHC clinics and the student health clinic, which serves both Durban campuses, offered PrEP; while one clinic from Pietermaritzburg and the Indumiso campus did not offer PrEP, at the time of data collection.

A purposive sampling method was used to select the study sites. Clinic participants were randomly selected from each site by approaching alternate patients in the clinic waiting rooms. Random, multistage sampling of campuses, faculties, programmes and level of study, by means of the ballot method, was used to select students from the university campuses. The course programmes and faculties chosen were nursing (Health Sciences); teaching (School of Education – subdivision of Arts and Design); physics (Applied Sciences) and industrial engineering (Engineering and the Built Environment). Those who were willing to participate were briefed on the purpose of the study. Written informed consent was sought prior to completing a questionnaire in either English or isiZulu, the two predominant languages in KwaZulu-Natal.

Questionnaire development

The questionnaire was developed by the research team and comprised of open and close-ended questions with a total of 49 questions, 29 of which are included in this report. A group discussion with a panel of five experts was conducted to ensure the validity of the questionnaire. A pilot study was conducted among five participants, who met the inclusion criteria, to ensure reliability. These participants were subsequently excluded from the study. An estimated time of 15 min was required to answer the questionnaire.

Ethical considerations

The Institutional Research Ethics Committee of Durban University of Technology (DUT), provided approval for this study (IREC 198/18). Gatekeeper permission was received from the Director of Research at DUT and the KwaZulu-Natal Department of Health, South Africa.

Statistical analysis

Data were analysed using SPSS version 25. Frequencies and percentages were calculated to describe categorical variables, and mean ± standard deviation was used to summarise continuous variables. Pearson chi-square (χ^2) test was used to correlate the data. Where cell counts contained fewer than five observations, Fishers exact test was used. In addition, odds ratios were calculated to determine associations being dichotomous variables. A p-value < 0.05 was deemed statistically significant.

Results

Participant demographics

A total of 640 participants completed the questionnaire. This included PHC clinic users ($n = 358$) and university students ($n = 282$). Full demographic details of the participants are provided in Table 1. Majority of the participants were female (62.3%; $n = 399$), Black African (94.4%; $n = 604$) and single (80.1%; $n = 512$). Over half were young adults aged 18–24 years (52.8%; $n = 338$). Educational levels were relatively low among the participants from the PHC clinic sites; only 20.2% ($n = 129$) had completed their secondary schooling.

Table 1. Participant socio-demographic profile.

	PHC Participants % (*n*)	University Students % (*n*)	Total % (*n*)	*p* value
Gender				
Male	18 (115)	19.3 (124)	37.3 (239)	<0.001
Female	37.8 (242)	24.5 (157)	62.3 (399)	0.06
Age				
18–24	19.4 (124)	33.4 (214)	52.8 (338)	<0.001
25–34	26.6 (170)	10.3 (66)	36.9 (236)	<0.001
35–39	5.5 (35)	0.1 (1)	5.6 (36)	<0.001
40 and older	4.4 (28)	0	4.4 (28)	<0.001
Race				
Black African	54 (345)	40.4 (259)	94.4 (604)	0.02
White	0	0.3 (2)	0.3 (2)	0.19
Coloured	0.9 (6)	0.8 (5)	1.7 (11)	1.00
Indian	7 (1.1)	15 (2.3)	3.4 (22)	0.02
Relationship status				
Single	46.3 (296)	33.8 (216)	80.1 (512)	<0.001
Married	6.4 (41)	1.9 (12)	8.3 (53)	<0.001
Divorced	0.5 (3)	0	0.5 (3)	0.27
Widowed	0.2 (1)	0	0.2 (1)	1.00
Highest Educational level				
None	0.3 (2)	0	0.3 (2)	0.50
Primary school	1.4 (9)	0	1.4 (9)	<0.001
Secondary school	13.6 (87)	0	13.6 (87)	<0.001
Incomplete	20.2 (129)	0	20.2 (129)	<0.001
Complete				
Tertiary (university/ college)	16.3 (104)	37 (237)	53.3 (341)	<0.001
Postgraduate	2.6 (17)	6 (38)	8.6 (55)	<0.001

Note: NB: Percentages do not add up to 100 as some participants did not answer all questions.

HIV status

The majority of the participants knew their HIV status (88.4%; $n = 566$) and 11.9% ($n = 76$) disclosed that they were HIV positive, a greater proportion of whom were from the PHC clinic sites (Table 2). Some (8.6%; $n = 55$) reported that their partners were HIV positive. While the majority of the participants expressed the importance of knowing a sexual partner's HIV status (91%; $n = 582$), only 65% ($n = 416$) knew their partners' status.

Sexual behaviour

Age at first sexual intercourse was low, with a mean age of 17.59 ± 3.15 years and was not different between the two groups of participants ($p = 0.41$). Condom usage was not consistent, with only 23.9% ($n = 153$) indicating condom use at every sexual act in the last year. This was similar between the two groups of participants ($p = 0.26$).

Almost a quarter of the study population indicated that they had multiple sexual partners (24.1%; $n = 154$), which was similar between males and females ($p = 0.26$).

Table 2. Participant sexual history.

	PHC Participants % (*n*)	University Student participants % (*n*)	Total % (*n*)	*p* value
Age of first sexual debut				
8–12	0.6 (4)	1.3 (8)	1.9 (12)	0.06
13–17	26.5 (170)	13.8 (88)	40.3 (258)	<0.03
18–22	22.3 (143)	17.8 (114)	40.1 (257)	<0.01
23–27	3 (19)	1 (7)	4 (26)	0.22
28 and older	0.2 (1)	0	0.2 (1)	1.00
Number of current sexual partners				
0	2.8 (18)	1.9 (12)	4.7 (30)	1.00
1	35.2 (225)	22.8 (146)	58 (371)	0.85
2	7.3 (47)	4.4 (28)	11.7 (75)	0.79
3	2.3 (15)	1.1 (7)	3.4 (22)	0.65
4	1.3 (8)	1.7 (11)	3 (19)	0.09
≥5	4 (25)	2 (13)	6 (38)	0.60
HIV status				
HIV positive	10.3 (66)	1.6 (10)	11.9 (76)	<0.001
HIV negative	36.7 (235)	32.5 (208)	69.2 (443)	<0.001
Did not wish to disclose status	5.2 (33)	2.1 (14)	7.3 (47)	0.12
Partner's HIV status				
HIV positive	7.5 (48)	1.1 (7)	8.6 (55)	<0.001
HIV negative	26.9 (172)	24.4 (156)	51.3 (328)	<0.001
Did not wish to disclose partner status	5 (32)	3.4 (22)	8.4 (54)	0.88
Frequency of condom use				
Did not use condoms	12.8 (82)	6.3 (40)	19.1 (122)	0.03
Sometimes	18.2 (117)	11.6 (74)	29.8 (191)	0.47
Most of the time	7.8 (50)	9.7 (62)	17.5 (112)	0.008
Always	14.4 (92)	9.5 (61)	23.9 (153)	0.26

Note: NB: Percentages do not add up to 100 as some participants did not answer all questions.

Knowledge of PrEP

Only 12.3% ($n = 79$) stated that they had a full understanding of PrEP, which was higher among university students ($p < 0.001$). The responses to specific knowledge questions are indicated in Table 3. Few participants (15%; $n = 96$) were aware of the availability of PrEP at their local clinic. Binary logistic regression indicated that those who had some tertiary education were four times more likely to identify PrEP as an HIV preventative measure (OR = 4.342; 95% CI 1.048–17.994; $p < 0.043$). They were also seven times more likely to recognise that PrEP was safe to use in pregnancy (OR = 7.846; 95% CI 1.383–44.492; $p = 0.020$). Neither participant HIV status nor partner HIV status were associated with increased awareness of any of the PrEP knowledge questions. However, females when were more likely than males to identify PrEP use as a daily pill (OR = 5.836; 95% CI 2.331–14.609; $p < 0.001$), and that it was safe to use during pregnancy (OR = 11.550; 95% CI 2.025–65.893; $p = 0.006$).

Table 3. Knowledge of PrEP.

	PHC Participants % (*n*)	University Students % (*n*)	Total % (*n*)	*p* value
Self-reported knowledge				
Limited knowledge	5.3 (34)	13.8 (88)	19.1 (122)	<0.001
Full knowledge	2.5 (16)	9.8 (63)	12.3 (79)	<0.001
Awareness of availability at clinic	3.6 (23)	11.4 (73)	15 (96)	0.51
PrEP is taken as a daily pill	4.4 (28)	8.9 (57)	13.3 (85)	0.04
PrEP use is continued for duration of HIV risk	3 (19)	8 (51)	11 (70)	0.86
PrEP can be used by HIV^- people	5.3 (34)	13 (83)	18.3 (117)	0.83
PrEP can be used by HIV^- people with HIV^+ partners	5.5 (35)	12.3 (79)	17.8 (114)	0.81
PrEP can be used by HIV^- people, planning to have a family with an HIV^+ partner	5 (32)	13 (83)	18 (115)	<0.001
PrEP is safe to use in pregnancy	3 (19)	7.2 (46)	10.2 (65)	0.43
Regular use of PrEP reduces HIV risk	4.8 (31)	11.9 (76)	16.7 (107)	0.61
Condom use should continue while using PrEP	6.5 (42)	16.6 (106)	23.1 (148)	0.44

Health science students were three times more likely to identify that PrEP use is continued for the duration of HIV risk (OR = 3.36; 95% CI: 1.50–7.54; $p = 0.003$) and that it is taken by HIV negative people (OR = 3.26; 95% CI: 1.29–8.25; $p = 0.012$). There was no significant association between students from different faculties and the other knowledge items (Table 4).

Participants who attended the PHC clinics were more likely to identify that PrEP is taken by HIV negative people (OR = 7.32; 95% CI: 1.30-41.19; $p = 0.024$). There was, however, no association between other PrEP knowledge items and the type of clinic that was used (Table 4).

Discussion

The knowledge, attitudes and perceptions of PrEP among PHC clinic users and university students in KwaZulu-Natal, South Africa was assessed. The overall knowledge of PrEP among the study population was low.

Although more participants from the university setting compared to the PHC setting indicated having knowledge of PrEP, these levels were very low with only 13.8% of students being aware of PrEP and 9.8% stating that they fully understood what PrEP was. Low levels of PrEP awareness were also reported among university students (18.9%) in Nigeria (Ajayi et al., 2018). In contrast almost half the students in France (47.2%) were knowledgeable about PrEP (Raia-Barjat et al., 2020). The latter study was restricted to Health Science (medical and nursing) students. It could thus be assumed that the nature of their study may have provided them with knowledge of this prophylactic medication. However, the Health Science (nursing) students in the current study only responded better than students from other faculties, to two aspects of PrEP knowledge and did not have a greater in-depth knowledge of PrEP, as would have been expected. This highlights the importance of including PrEP education as part of the undergraduate nursing curriculum, where it is currently lacking.

An in-depth knowledge was also lacking among the participants, who reported having a full understanding of PrEP. Other than correctly identifying that PrEP was taken as a daily pill, they had a limited understanding about other aspects of PrEP. For instance, there was unawareness of PrEP as a prophylactic medication for HIV negative individuals to prevent HIV infection or that PrEP could be administered to serodiscordant couples planning to have families with HIV positive partners. Moreover, users of PHC clinics offering PrEP did not have a better understanding of it compared to users of clinics not offering PrEP. Other than an awareness that PrEP is taken by HIV negative people, they did not have an enhanced knowledge of other aspects of PrEP. This could imply that patients accessing health care services are either not fully informed of all available HIV preventative measures or that health literacy barriers exist. Previous HIV studies have indicated

Table 4. Bivariate logistic regression comparing PrEP knowledge of (1) health science versus other faculty students and (2) users of PrEP offering versus non-PrEP offering clinics.

	Health science vs other faculty students			Users of PrEP offering vs non-PrEP offering clinics		
Variable	OR	95% CI	*p* value	OR	95% CI	*p* value
PrEP is taken as a daily pill	1.46	0.68–3.12	0.335	3.33	0.20–54.53	0.398
PrEP use is continued for duration of HIV risk	3.36	1.50–7.54	0.003*	1.00	0.21–4.76	1.000
PrEP can be used by HIV^- people	3.26	1.29–8.25	0.012*	7.32	1.30–41.19	0.024*
PrEP can be used by HIV^- people with HIV^+ partners	1.05	0.39–2.74	0.929	1.69	0.29–9.65	0.554
PrEP can be used by HIV^- people, planning to have a family with an HIV^+ partner	0.83	0.29–2.35	0.721	3.82	0.60–24.22	0.155
PrEP is safe to use in pregnancy	1.10	0.39–3.09	0.857	0.92	0.12–6.83	0.932

*Indicates significance.

that full information is not gained due to literacy constraints when English is a second language of the participants (Drainoni et al., 2018). Poster displays in the clinic waiting areas have been observed at the clinics offering PrEP, however, these are insufficient to provide an adequate knowledge for clinic users to make an informed decision about the prophylaxis. Considering that only 20.2% of PHC clinic users completed secondary school, poster displays should be augmented with verbal communication by healthcare workers on the various HIV preventive measures available at the site. Previous studies have shown that healthcare professionals play a vital role in educating patients about the various preventative options that are available (Fleurs, 2016; Ross et al., 2017).

Enhanced dissemination of information to students is also required. Universities provide an ideal setting for workshops or seminars, which can provide information to the larger university community about PrEP. Young people require a comprehensive understanding of PrEP, to make informed decisions about their sexual protection. HIV testing centres could also disseminate detailed information about PrEP, as they provide information on HIV (Raia-Barjat et al., 2020). Students have previously indicated a preference for testing at universities rather than at clinics in residential areas, as the former were perceived to be a less stigmatising environment (Haffejee, Maughan-Brown et al., 2018). Hence it would be ideal for these testing centres, which provide counselling prior to testing, to deliver a full package of information on HIV preventative measures, including PrEP.

Moreover, our study reports a high-risk population, with early age of sexual debut, multiple concurrent sexual partners and inconsistent condom usage. Young people lack the confidence to use condoms, with factors such as body image perceptions, dating violence and cyberbullying negatively impacting condom use (Corona et al., 2019; Haffejee et al., 2020; Haffejee, Koorbanally et al., 2018). There is also a fear of appearing promiscuous and a lack of partner trust, if one requests the use of condoms (Haffejee et al., 2016; Haffejee & Maksudi, 2020). These barriers to safe sex can be overcome by the use of PrEP, as it can potentially be taken without partner knowledge.

Conclusion

Four years post implementation of PrEP in South Africa, knowledge of this prophylactic measure is very low. Of particular concern is that users of clinics offering the prophylactic as well as nursing students did not have an enhanced awareness of PrEP. It is imperative that every person is acquainted with all options that are available in preventing HIV. Interventions to improve PrEP knowledge are required, to reduce the high incidence of HIV, particularly among young people in the country. It is also mandatory that PrEP education be included in the undergraduate nursing curriculum in order to improve the knowledge amongst South Africa's future nurses. Furthermore, workshops on PrEP should be implemented among all university students and PHC clinic users.

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Appendix. Quantitative questionnaire – English

ASSESSING THE KNOWLEDGE, PERCEPTION AND ATTITUDE OF PRE-EXPOSURE PROPHYLAXIS (PrEP) AMONGST UNIVERSITY STUDENTS AND CLINIC USERS IN KWAZULU-NATAL

Participant Number…… **Location**……

Please fill out this questionnaire on your knowledge, perception and attitude of Pre -exposure prophylaxis (PrEP). All answers will be kept confidential.

Kindly respond to the following questions by indicating your answer with an X

General Information

1.Indicate your gender
☐1 Male
☐2 Female

2. Select your age category
☐1 18 -20
☐2 21-24
☐3 25-29
☐4 30 -34
☐5 35-39
☐6 above 40

3. Select your race
☐1 Black African
☐2 White
☐3 Coloured
☐4 Indian
☐5 Other _____

4. Select your home language
☐1 Isizulu
☐2 English
☐3 Afrikaans
☐4 Other _____

5. Indicate your religion
☐1 Christianity
☐2 Islam
☐3 Hinduism
☐4 Judaism
☐5 Buddhism
☐6 Cultural (African tradition)
☐7 Other _____

6. State your highest qualification
☐0 None
☐1 Primary
☐2 Secondary, grade _____
☐3 Tertiary
☐4 Postgraduate

7. If you are a tertiary education student, indicate your current level of study
☐1 1st year
☐2 2nd year
☐3 3rd year
☐4 4th year
☐5 Post-graduate

8. Indicate your relationship status
☐1 Single
☐2 Married
☐3 Divorced
☐4 Widowed
☐5 Other_____

9. Number of current sexual partners _____

10. Number of lifetime sexual partners_____

11. Age of current sexual partner(s) (you may thick more than 1 box)
☐1 18 -20
☐2 21-24
☐3 25-29
☐4 30 -34
☐5 35-39
☐6 above 40

12. Do you know your HIV status
☐1 Yes
☐0 No

13. If yes to question 11, please indicate your HIV status
☐1 Positive
☐2 Negative
☐3 I do not wish to disclose

14. Do you know your partner's HIV status
☐1 Yes
☐0 No

15. If yes to question 13, please indicate your partner's HIV status
☐1 Positive
☐2 Negative
☐3 I do not wish to disclose

16.Do you think it is important to know your sexual partners HIV status
☐1 Yes
☐0 No
Indicate why_____

17. How often do you use condoms when engaged in sex
☐1 I do not use condoms
☐2 Sometimes
☐3 Most of the time
☐4 Always
Kindly indicate why? _____

Knowledge of Pre-exposure prophylaxis (PrEP)

18. How would you describe your current knowledge of HIV pre-exposure prophylaxis
☐1 This is the first time I am hearing about it
☐2 I have heard about PrEP, but I do not have a full understanding
☐3 I understand PrEP fully

If you have chosen **option 1**, proceed to **question 38.**
If you have chosen **options 2 or 3**, please continue with **question 18.**

19. If you have knowledge of PrEP, where did you hear about it? (You may tick more than one box)
☐1 Friend/relative
☐2 Partner
☐3 Radio
☐4 Television
☐5 Social media
☐6 Health care facility
☐7 School/university
☐8 Other, specify _____

20. PrEP is taken
☐1 as a daily pill
☐2 as a monthly injection
☐3 After sex
☐4 Before sex
☐5 I do not know

21. Does PrEP protect you from the following sexual transmitted diseases (you may tick more than 1 box)
☐1 Gonorrhea
☐2 HIV
☐3 Hepatitis
☐4 Syphilis

22. For how long must you take PrEP medication
☐1 Once off
☐2 As long you continue to be at risk
☐3 Forever
☐4 I do not know

Please select an appropriate answer for each question, in the table below:

Knowledge about PrEP	Yes	No	I do not know
23. PrEP is the use of antiretroviral (ARV) medication to prevent HIV	☐1	☐0	☐2
24. PrEP should be used by HIV positive people	☐1	☐0	☐2
25. PrEP should be used by HIV negative people	☐1	☐0	☐2

	Yes	No	I don't know
26. PrEP should be used by HIV negative people with a- high risk of contracting HIV	☐1	☐0	☐2
27. PrEP should be used by HIV negative people with a low risk of contracting HIV	☐1	☐0	☐2
28. PrEP should be given to HIV positive people with HIV negative partners	☐1	☐0	☐2
29. PrEP should be given to HIV negative people with HIV positive partners	☐1	☐0	☐2
30. PrEP should be used by HIV negative people who are planning to have family with a HIV positive partner	☐1	☐0	☐2
31. PrEP should be used by HIV positive people who are planning to have family with a HIV negative partner	☐1	☐0	☐2
32. Is PrEP safe to use in pregnancy	☐1	☐0	☐2
33. PrEP medication can be used to prevent HIV	☐1	☐0	☐2
34. Regular use of PrEP reduces HIV risk	☐1	☐0	☐2
35. People using PrEP should continue using Condoms	☐1	☐0	☐2
36. PrEP medication can cure HIV	☐1	☐0	☐2
37. Everyone at risk of contracting HIV infection should have access to PrEP	☐1	☐0	☐2
38. Is PrEP available at your local clinic?	☐1	☐0	☐2

Attitudes to PrEP usage	**Yes**	**No**	**I don't know**
39. Would you use PrEP if it was available to you?	☐1	☐0	☐2
40. Would you recommend PrEP to your sexual partner?	☐1	☐0	☐2
41. Would you recommend PrEP to your friend?	☐1	☐0	☐2
42. Do you think PrEP is safe to use?	☐1	☐0	☐2
43. Would you feel embarrassed to take PrEP daily?	☐1	☐0	☐2

44. What will be your preferred method of HIV prevention?

☐1 PrEP only
☐2 condoms only
☐3 PrEP and condoms
☐4 Abstinence
☐5 Reducing the number of sexual partners
☐6 other_____

45. If you consider taking PrEP, would you inform your sexual partner (s)?

☐1 Yes
☐2 No
Kindly indicate why _____

46. If you choose not to use PrEP, indicate why (you may choose more than one option)

☐1 I am worried about what my family would think
☐2 I am concerned about what my sexual partner would think
☐3 I am embarrassed about what my friends would think
☐4 I am afraid of being stigmatized
☐5 Because of the side effects
☐6 I do not like to take medication
☐7 Other (kindly specify) _____

_____

_____

Thank you for your participation.