

Awareness and intention to use event-driven and long-acting injectable pre-exposure prophylaxis among adolescent and young men who have sex with men and transgender women in Brazil

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Background

Prevention strategies such as event-driven oral pre-exposure prophylaxis (ED-PrEP) and long-acting injectable PrEP (LAI-PrEP) are emerging as alternatives for adolescents from populations more vulnerable to HIV.

Goal

We aimed to investigate the awareness and associated factors to intention to use ED-PrEP and LAI-PrEP among adolescents and young men who have sex with men (AYMSM) and transgender women (AYTGW).

Methods

- PrEP1519 is a prospective, multicenter, open-label PrEP demonstration cohort study of AYMSM and AYTGW aged 15–19 in Brazil.
- For this cross-sectional analysis, we included 597 adolescents enrolled in the cohort from June 2021 to March 2022 in the Salvador and São Paulo sites.
- The outcome variables were the intention to use ED-PrEP and to use LAI-PrEP.
- The explanatory variables were socio-demographics, sexual behavior, discrimination and violence, previous use of daily oral PrEP, and daily PrEP adherence.
- Descriptive statistics were carried out, and multivariate analysis was conducted to estimate adjusted odds ratios (aOR) and 95% confidence intervals (95%CI).

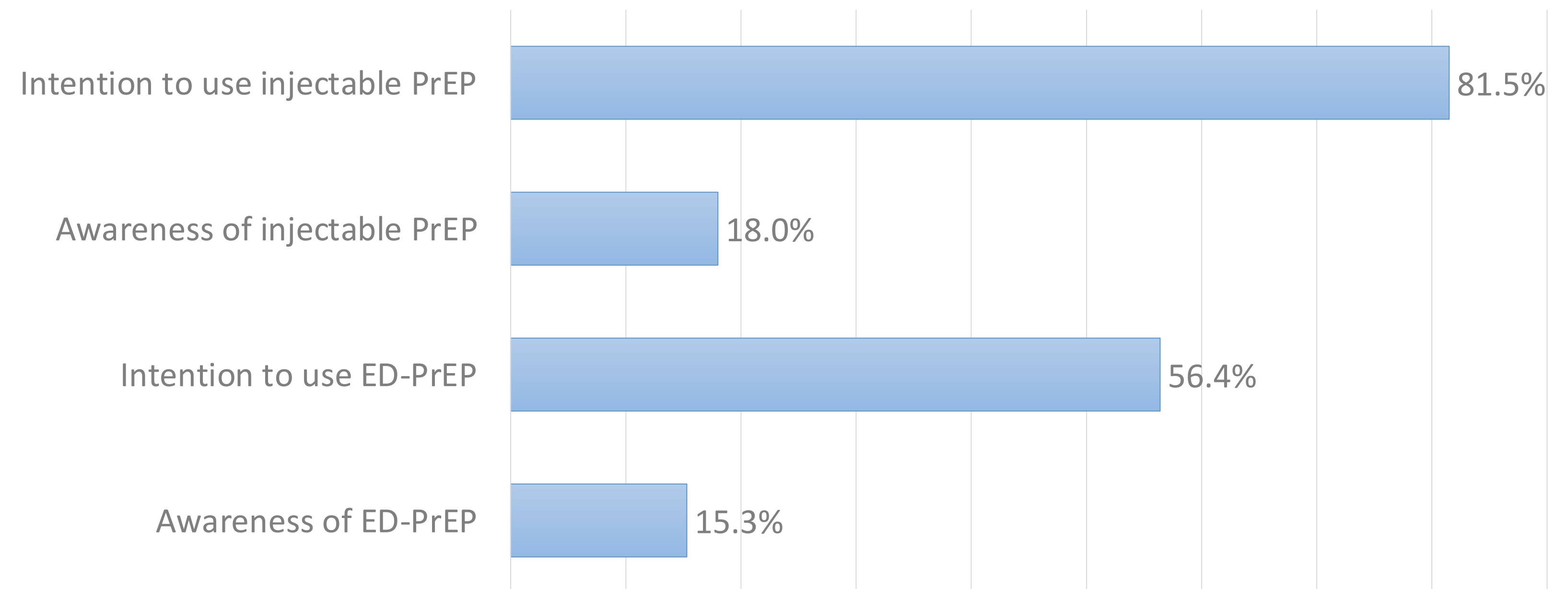
Results

- Only 15.3% and 18.0% of the adolescents were aware of the ED-PrEP and LAI-PrEP options, respectively (Graph 1).
- Regarding intention to use, 56.4% and 81.5% reported ED-PrEP and LAI-PrEP, respectively (Graph 1).
- Graphs 2, 3, and 4 describe possible barriers and facilitators to ED-PrEP and LAI-PrEP use;
- Adolescents with low adherence to daily oral PrEP were more likely to intend to use ED-PrEP (aOR=1.79; 95%CI:1.04–3.08) (Table 1).
- Those who reported consistent or frequent condom use in insertive anal sex with steady or casual partners were less likely to intend to use ED-PrEP (aOR=0.37; 95%CI:0.15–0.90) (Table 1).
- As for LAI-PrEP, those with middle (aOR=1.93; 95%CI:1.05–3.53) or low socioeconomic status (aOR=3.13; 95%CI:1.30–7.51) and those who reported three or more casual partners in the previous three months (aOR=2.25; 95%CI:1.30–3.89) were more likely to intend to use LAI-PrEP (Table 1).
- Adolescents who never used daily oral PrEP (aOR=0.31; 95%CI:0.11–0.92) were less likely to intend to use LAI-PrEP (Table 1).

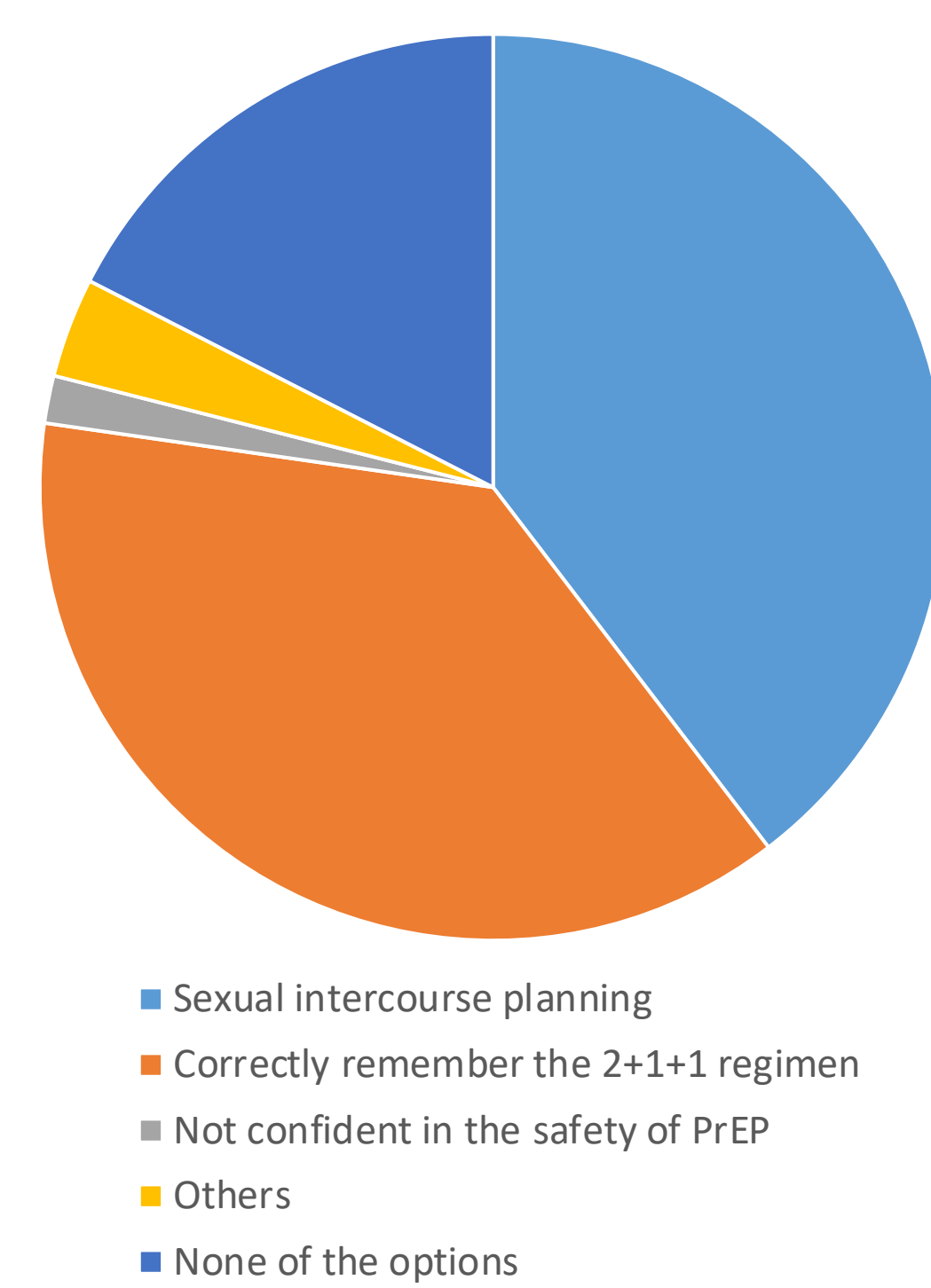
Conclusions

- AYMSM and AYTGW in Brazil reported a low awareness and high intention to use LAI-PrEP over ED-PrEP.
- Their sexual behavior pattern and previous experience using daily oral PrEP strongly influenced their intention to use the method.
- Once these new modalities were introduced to MSM and TGW adolescents, the intention to use was high for both methods, with a greater preference for LAI-PrEP.
- By understanding that the choice of PrEP modality will largely depend on previous experiences regarding the use of prophylaxis and sexual behaviors, the different PrEP modalities must be available and accessible to adolescents to be chosen according to their needs, preferences and profiles at a given moment in their lives.
- In this sense, new HIV prevention methods should be discussed in counseling opportunities in HIV prevention services, along with their characteristics and indications, dialoguing with adolescents about the risks to which they are exposed to encourage preventive measures.
- Making different modalities available could increase PrEP uptake and may be a potentially good option for adolescents who have not adapted to daily oral PrEP.

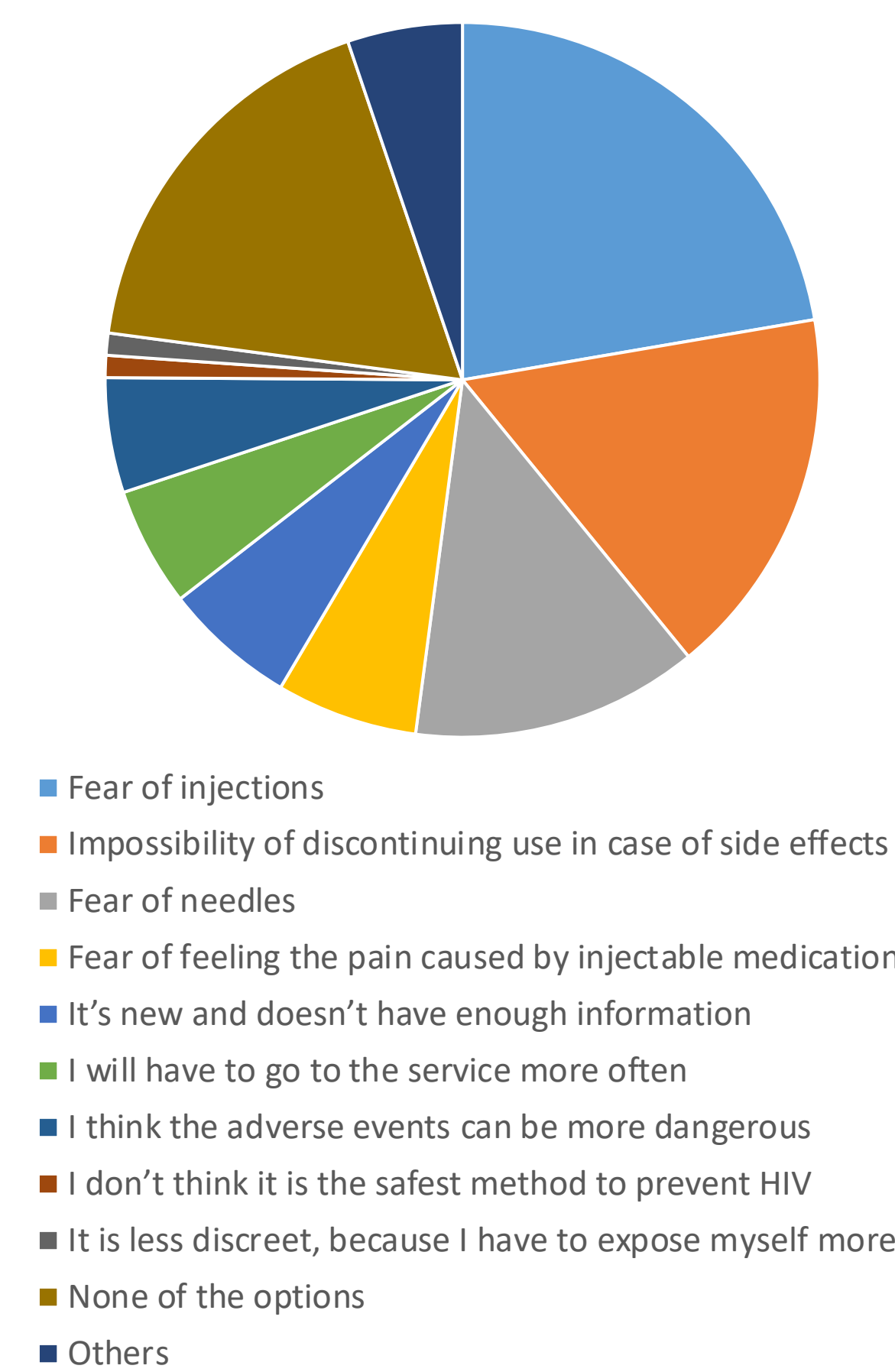
Graph 1. Awareness and intention to use on-demand and LAI-PrEP among AYMSM and AYTGW, PrEP1519 study, Brazil, June 2021 to March 2022.



Graph 2 - Barriers to intention to use ED-PrEP



Graph 3 - Barriers to intention to use LAI-PrEP



Graph 4 - Facilitators to intention to use LAI-PrEP

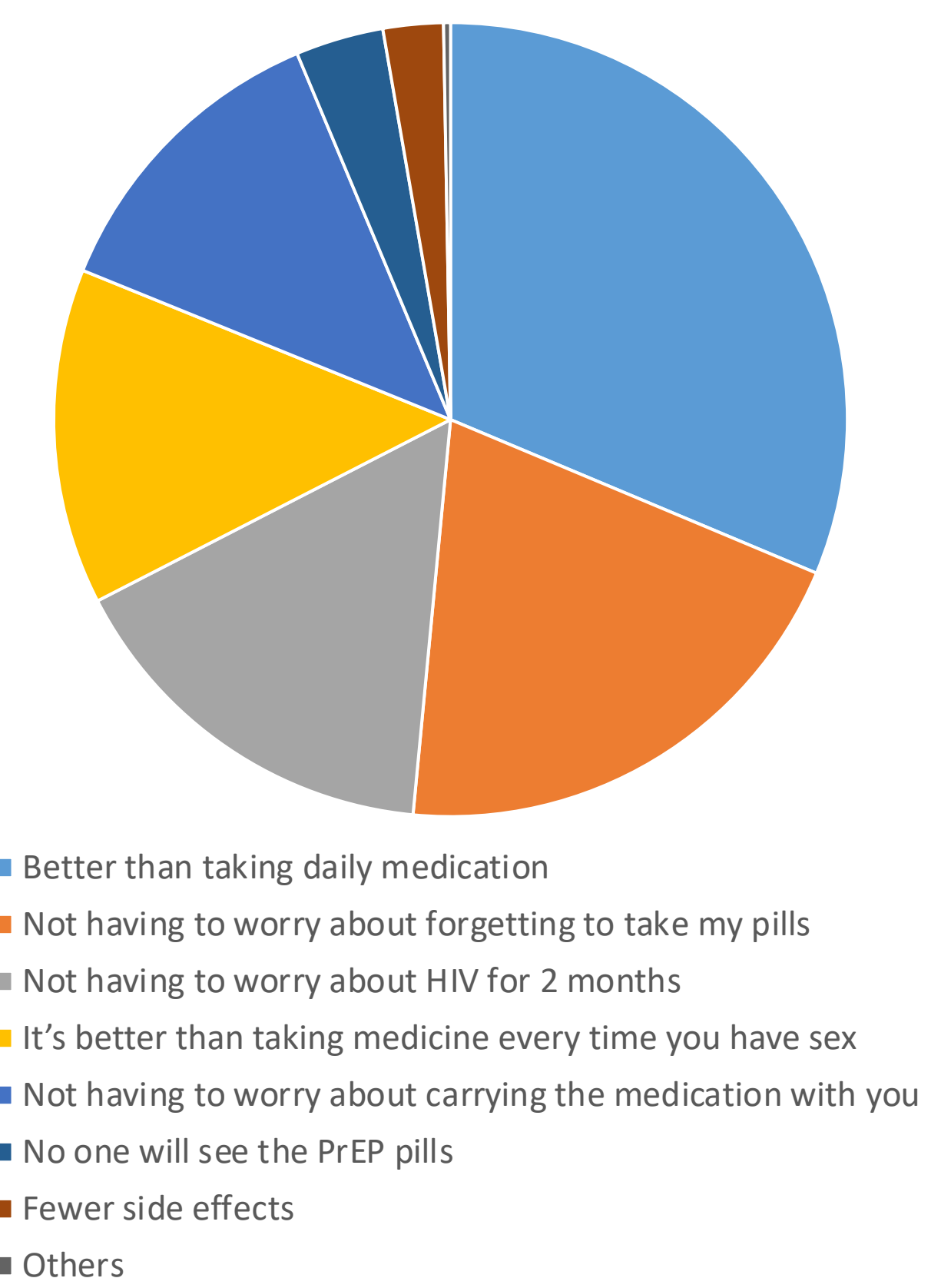


Table 1. Factors associated with intention to use on-demand and LAI-PrEP in AYMSM and AYTGW. June 2021 to March 2022 (N = 597).

| Variables | Intention to use ED-PrEP | | | | Intention to use LAI-PrEP | | | |
|---|--------------------------|----------|------------------|-------------------|---------------------------|---------|------------------|------------------|
| | Univariate | | Multivariate | | Univariate | | Multivariate | |
| | % | p-value | OR (CI95%) | aOR (CI95%) | % | p-value | OR (CI95%) | aOR (CI95%) |
| Sociodemographic | | | | | | | | |
| Site | | 0.001* | | | | 0.102* | | |
| Salvador | 46.78 | | Ref. | | 84.98 | | Ref. | |
| São Paulo | 61.18 | | 1.79 (1.27–2.52) | 1.17 (0.69–1.99) | 79.57 | | 0.69 (0.44–1.08) | 0.85 (0.49–1.47) |
| Age | | 0.267* | | | | 0.396* | | |
| 15–17 years | 60.61 | | Ref. | | 78.95 | | Ref. | |
| 18 years or more | 55.16 | | 0.80 (0.54–1.19) | | 82.2 | | 1.23 (0.76–1.99) | |
| Study population | | 0.923* | | | | 0.716* | | |
| AMSM | 53.65 | | Ref. | | 82.44 | | Ref. | |
| ATWG | 52.94 | | 0.97 (0.54–1.73) | | 80.39 | | 0.87 (0.42–1.81) | |
| Race/Color | | 0.746* | | | | 0.401* | | |
| White | 52.42 | | Ref. | | 79.67 | | Ref. | |
| Not white | 54.08 | | 1.07 (0.71–1.60) | | 82.99 | | 1.24 (0.75–2.08) | |
| Socioeconomic level | | 0.173* | | | | 0.043* | | |
| High | 56.48 | | Ref. | | 76.85 | | Ref. | |
| Middle | 52.04 | | 0.84 (0.53–1.31) | 0.87 (0.44–1.71) | 84.07 | | 1.59 (0.91–2.77) | 1.93 (1.05–3.53) |
| Low | 43.33 | | 0.59 (0.33–1.04) | 0.65 (0.28–1.49) | 90 | | 2.71 (1.19–6.16) | 3.13 (1.30–7.51) |
| Previous daily oral PrEP use | | | | | | | | |
| Discontinuation of PrEP | | < 0.001* | | | | 0.013* | | |
| Never discontinued | 48.13 | | Ref. | | 82.53 | | Ref. | |
| Discontinued but used again | 50 | | 1.08 (0.67–1.73) | | 90.22 | | 1.95 (0.92–4.16) | 1.64 (0.75–3.59) |
| Discontinued | 62.65 | | 1.81 (1.09–3.00) | | 81.93 | | 0.96 (0.51–1.82) | 4.06 (0.51–2.23) |
| Never used | 72.22 | | 2.80 (1.81–4.33) | | 73.61 | | 0.59 (0.36–0.96) | 0.31 (0.11–0.92) |
| MPR | | < 0.001* | | | | 0.011* | | |
| High | 44.26 | | Ref. | | 83.4 | | Ref. | |
| Low | 56.22 | | 1.62 (1.10–2.38) | 1.79 (1.04–3.08) | 86.02 | | 1.22 (0.71–2.10) | |
| Never used | 72.22 | | 3.28 (2.10–5.12) | 2.30 (0.48–11.05) | 73.61 | | 0.56 (0.33–0.92) | |
| Sexual behavior | | | | | | | | |
| Number of casual sex partners in the previous 3 months | | 0.667* | | | | 0.064* | | |
| Less than 3 or none | 57.36 | | Ref. | | 78.2 | | Ref. | |
| 3 or more | 55.59 | | 0.93 (0.67–1.29) | | 84.16 | | 1.48 (0.98–2.50) | 2.25 (1.30–3.89) |
| Frequency of condom use in receptive anal sex with a steady or casual partner | | 0.150* | | | | 0.338* | | |
| Never/rarely | 65.63 | | Ref. | | 75.76 | | Ref. | |
| Sometimes | 57.84 | | 0.72 (0.31–1.65) | 0.58 (0.23–1.51) | 86.54 | | 2.06 (0.78–5.45) | |
| Always/often | 49.75 | | 0.52 (0.24–1.13) | 0.37 (0.15–0.90) | 84.08 | | 1.69 (0.70–4.08) | |
| Discrimination and violence | | | | | | | | |
| Physical aggression related to sexual orientation | | 0.859* | | | | 0.559* | | |
| No | 56.32 | | Ref. | | 81.47 | | Ref. | |
| Yes | 53.85 | | 0.90 (0.30–2.73) | | 84.62 | | 1.25 (0.27–5.73) | |
| Pearson's GOF test (p-value) | | | | 0.973 | | | | 0.913 |

NGO, non-governmental organization; MPR, medication possession rate.

* Pearson's chi-square † Fisher's exact test

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