

Perspectives on Pre-Exposure Prophylaxis (PrEP) Among People Who Could Benefit from PrEP: Qualitative Research Findings

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Conclusions

- Interviews with 20 people who would benefit from pre-exposure prophylaxis (PWPB) highlight the diversity of experiences and preferences surrounding PrEP use
 - Responses were similar from the three pre-exposure prophylaxis (PrEP) user subgroups (former PrEP users [FP], current PrEP user [CP], and PrEP-Naïve PWPB [PN])
- The barriers and drivers of PrEP use are complex and a variety of PrEP options may help support PrEP uptake and utilization
 - Convenience, cost, efficacy, and safety/side effects were important concepts influencing PrEP use
 - An overall preference for long-acting injectable PrEP modalities was driven by a lower frequency of administration
- Risk perception may be a barrier to PrEP use, as PN and FP participants had a lower perceived risk of acquiring HIV-1 than the CP participants
- Emergent themes from these interviews informed the development of a quantitative survey focusing on perceptions of PrEP attributes

Plain Language Summary

- Pre-exposure prophylaxis is effective at preventing HIV-1 infection, and can be taken on-demand or daily as a pill or by injection every 2 months
 - Despite its effectiveness, the use of pre-exposure prophylaxis by people who could benefit from it remains low in the United States
- In this study, people currently using or who had previously used pre-exposure prophylaxis and those who would benefit from, but had never used, pre-exposure prophylaxis were interviewed to better understand their experiences, preferences, and feelings
 - Convenience, cost, effectiveness, type of medication, and safety/side effects were important factors influencing pre-exposure prophylaxis use
 - Overall, 75% of participants preferred the use of long-acting injectable forms of pre-exposure prophylaxis because of the lower frequency of administration
- These results suggest that having a variety of pre-exposure prophylaxis options available to people will allow them to choose the option that works best for them and their lifestyle

Background

- PrEP is an effective HIV-1 prevention strategy; however, uptake remains low in the USA^{1,2}
 - PrEP uptake has improved in recent years; of the 1.2 million PWPB in the USA, 36% were prescribed PrEP in 2022, up from 23% in 2019³
- One approach to improving PrEP uptake is to increase the available modalities and options to suit a wider group of individuals and priority populations⁴
 - Currently, there are two PrEP medications approved for oral use and one long-acting injectable drug administered once every 2 months by a healthcare provider
 - Additional, longer-acting modalities are under clinical investigation
- Preferences, barriers, and facilitators for specific modalities among specific populations should be considered in intervention strategies to improve uptake
 - Different populations have demonstrated a variety of PrEP preferences regarding event-driven oral, daily oral, and long-acting injectable PrEP regimens^{5–7}

Objective

- To use qualitative methods to identify drivers and barriers to PrEP uptake and use, and explore PrEP-attribute preferences in a sample of PWPB from the USA

Methods

Inclusion and Exclusion Criteria

- Eligible participants met the following criteria: 1) aged 18–65 years; 2) residents of the USA; and 3) current/former PrEP user or PWPB/PrEP naïve according to **Table 1**
- Participants who met any of the following criteria were excluded: 1) diagnosed with HIV-1; 2) participant and/or immediate family had ever worked directly for the research company and their affiliates; 3) unwilling/unable to provide informed consent; 4) indicates/exhibits speaking or hearing difficulties which would make telephone conversations challenging

Table 1. PrEP-Use Status Criteria

PrEP-use status	Criteria
Current PrEP user (CP)	Participant currently uses PrEP or has previously used PrEP in past 6 months and plans to use PrEP in the future
Former PrEP user (FP)	Has previously used PrEP in past 6 months and does not plan to use PrEP in the future, or has previously used PrEP ≥6 months ago
PrEP-naïve PWPB (PN)	HIV-1 negative, never used PrEP, and met one specific location- or behavior-based criterion*

*Location-based criteria: located in a jurisdiction with high HIV prevalence according to the CDC⁸ and have had sex without a condom in past year. Behavior-based: have had sex without a condom with more than one partner in the past year; have had sex in exchange for money, drugs or basic needs in the past year; have had sex with someone else who had sex without a condom with more than one partner in the past year; have had sex without a condom with someone who did not know if they had HIV in the past year; tested positive for a sexually transmitted infection (other than HIV) in the past 6 months; ever injected drugs (not including any prescription medication); ever been in prison. PrEP, pre-exposure prophylaxis.

Participant Interviews

- Eligible participants were recruited using a patient panel and engagement database (Global Perspectives) qualified by PrEP-use status
- Participants completed 45-minute concept elicitation interviews via telephone between February and May 2023
 - Interviews were exploratory in nature and interview moderators followed a semi-structured guide with open-ended questions to elicit spontaneous feedback about experiences with and opinions of PrEP to identify factors impacting PrEP uptake, use, and PrEP-attribute preferences
 - Once participants' initial thoughts about PrEP were obtained, they were given a definition of PrEP and re-asked their perspectives

Data Processing

- Verbatim transcripts were coded using NVivo qualitative analysis software
- Content and thematic analyses were used to identify themes relevant to PrEP preferences and their relative importance

Results

Population

- Overall, 20 demographically diverse PWPB participated: 10 PN, 5 CP, and 5 FP
 - A summary of participant characteristics is shown in **Table 2**

Table 2. Summary of Participant Characteristics

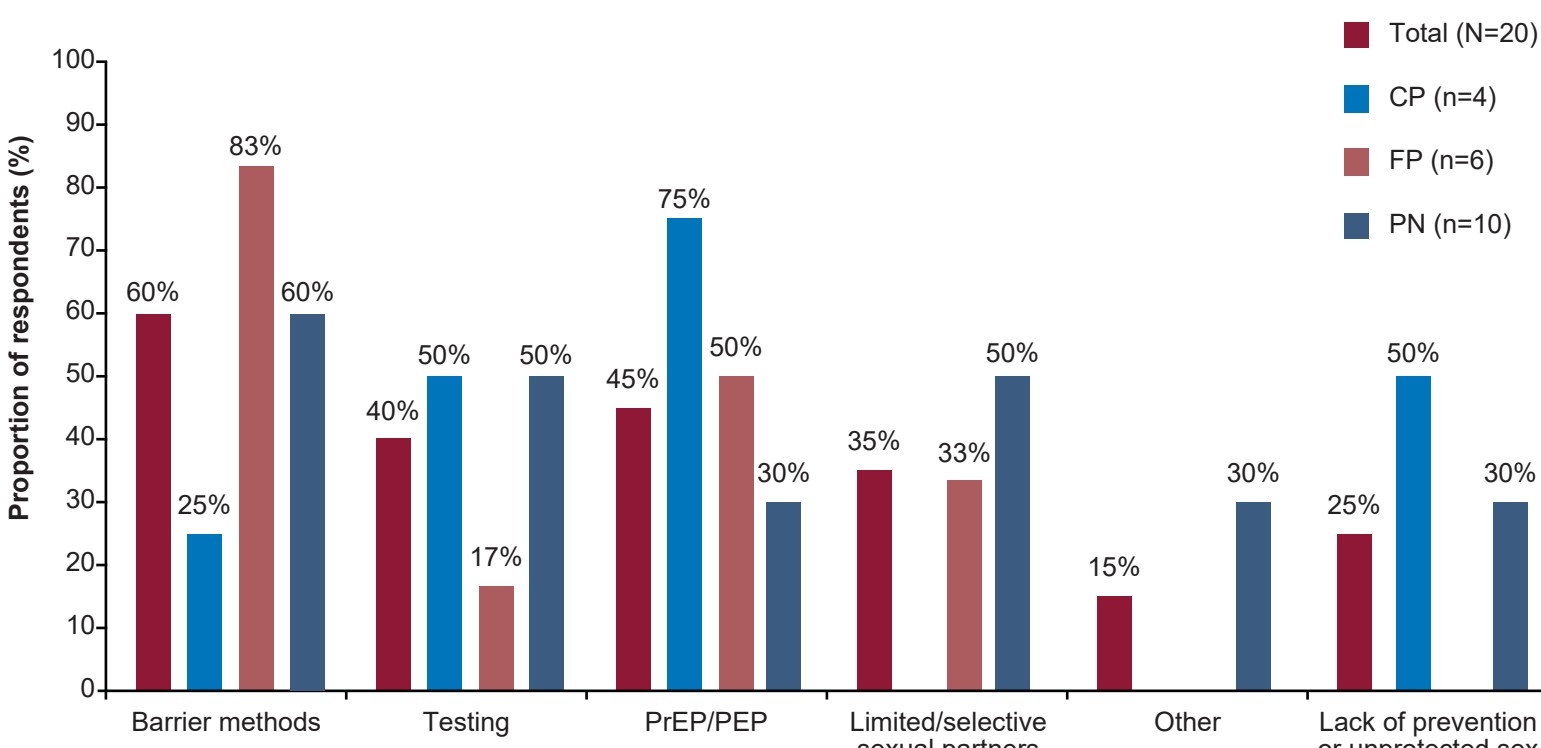
Participants	PN (n=10)	CP (n=4)*	FP (n=6)	Total (N=20)
Mean age (median, range), years	40 (41, 20–56)	45 (46, 29–58)	35 (34, 27–45)	40 (40, 20–58)
Gender				
Cisgender male	4	2	2	8
Cisgender female	5	1	4	10
Transgender male	-	1	-	1
Non-binary	1	-	-	1
Race/ethnicity				
Asian/not Hispanic/Latinx	1	-	1	2
Black/African-American/not Hispanic/Latinx	3	1	1	5
White/Caucasian/not Hispanic/Latinx	3	2	2	7
Hispanic/Latinx	3	1	2	6
USA region				
Northeast	3	2	1	6
South	3	-	3	6
Midwest	2	1	-	3
West	2	1	2	5
Household income				
\$90–\$150k	2	1	2	5
\$65–\$90k	2	2	2	6
\$30–\$64k	5	-	1	6
\$15–\$30k	1	-	-	1
Less than \$15k	-	1	1	2
Mean household size (median, range)	3 (4, 1–6)	2 (2, 2–3)	3 (4, 1–5)	3 (3, 1–6)

*One respondent qualified as a current PrEP user based on the screening criteria. However, during the interview itself she confirmed she had stopped taking PrEP. This respondent was reclassified as a former PrEP user during analysis. CP, current PrEP user; FP, former PrEP user; PN, PrEP-naïve PWPB; PrEP, pre-exposure prophylaxis.

Use of HIV-1 Prevention Methods

- Most participants actively used at least one type of HIV-1 prevention method (**Figure 1**)
- The most frequently reported prevention method was the use of barriers, including condoms (60%)
 - 60% and 83% of PN (n=10) and FP (n=6) participants, respectively, used barrier methods, while only 25% of CP users reported using barriers

Figure 1. Percentage of Participants Reporting HIV-1 Prevention Methods



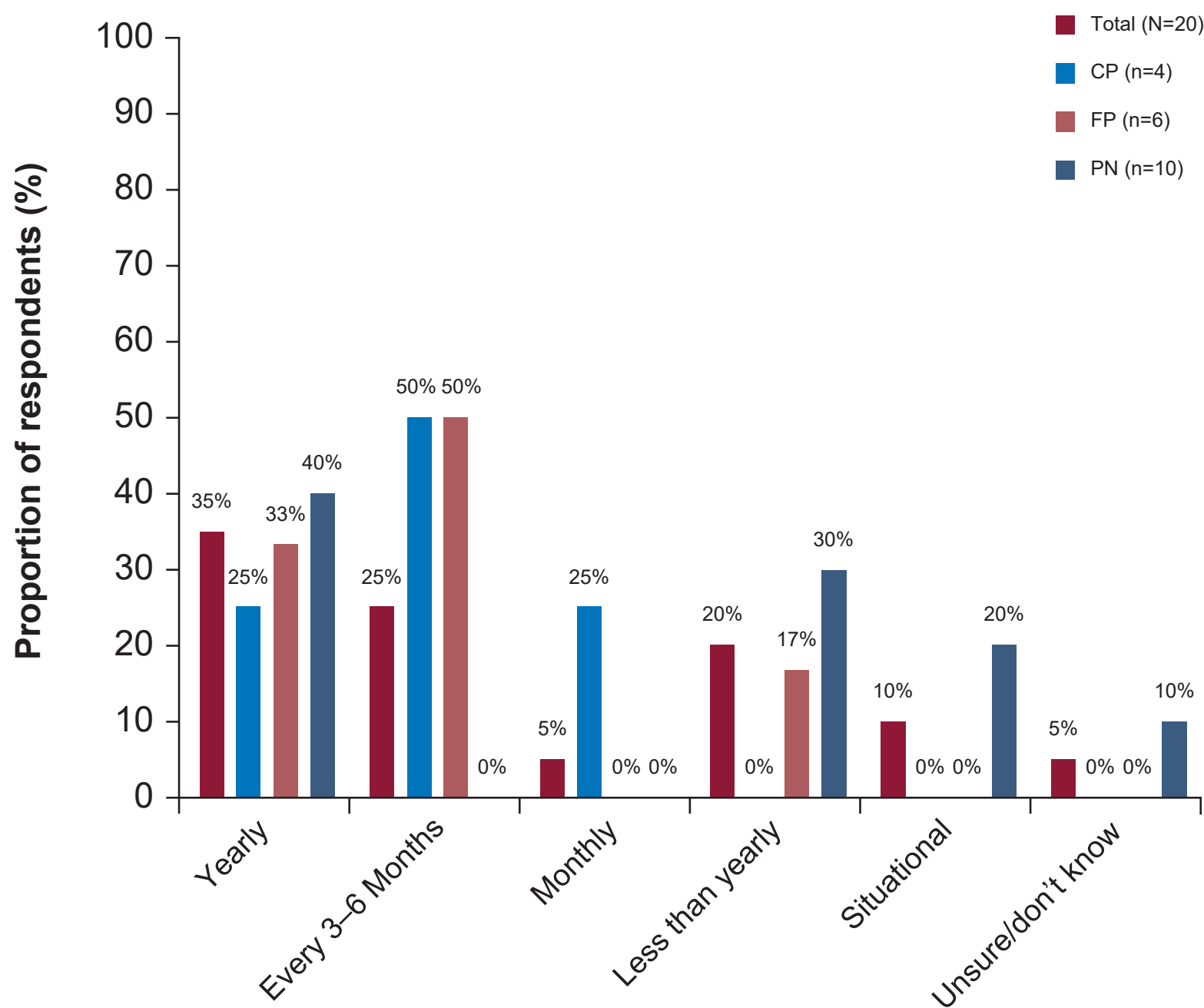
Specific components of each category are as follows: Barrier methods: condoms/dental dam; Testing: regular HIV testing, partner HIV testing; PrEP/PEP: PrEP Use (personal and/or partner); PEP: Limited/Selective Sexual Partners: abstinence, monogamy, limited number of partners, selecting partners without history of HIV, only sex with low-risk partners, only sex with women; Other: Using toys instead of physical touch, talking to partner about safe sex. CP, current PrEP user; FP, former PrEP user; PEP, post-exposure prophylaxis; PN, PrEP-naïve PWPB; PrEP, pre-exposure prophylaxis; PWPB, people who would benefit from pre-exposure prophylaxis.

HIV Testing Frequency and Risk Perception

- Almost all participants (95%) were aware of how frequently they had been tested for HIV-1, with the highest overall response rate (35%) reported for yearly testing (**Figure 2**)
 - For CP and FP, the highest response rate (50%) was testing every 3–6 months
 - Only PN participants reported receiving situational HIV-1 testing or not knowing their testing frequency

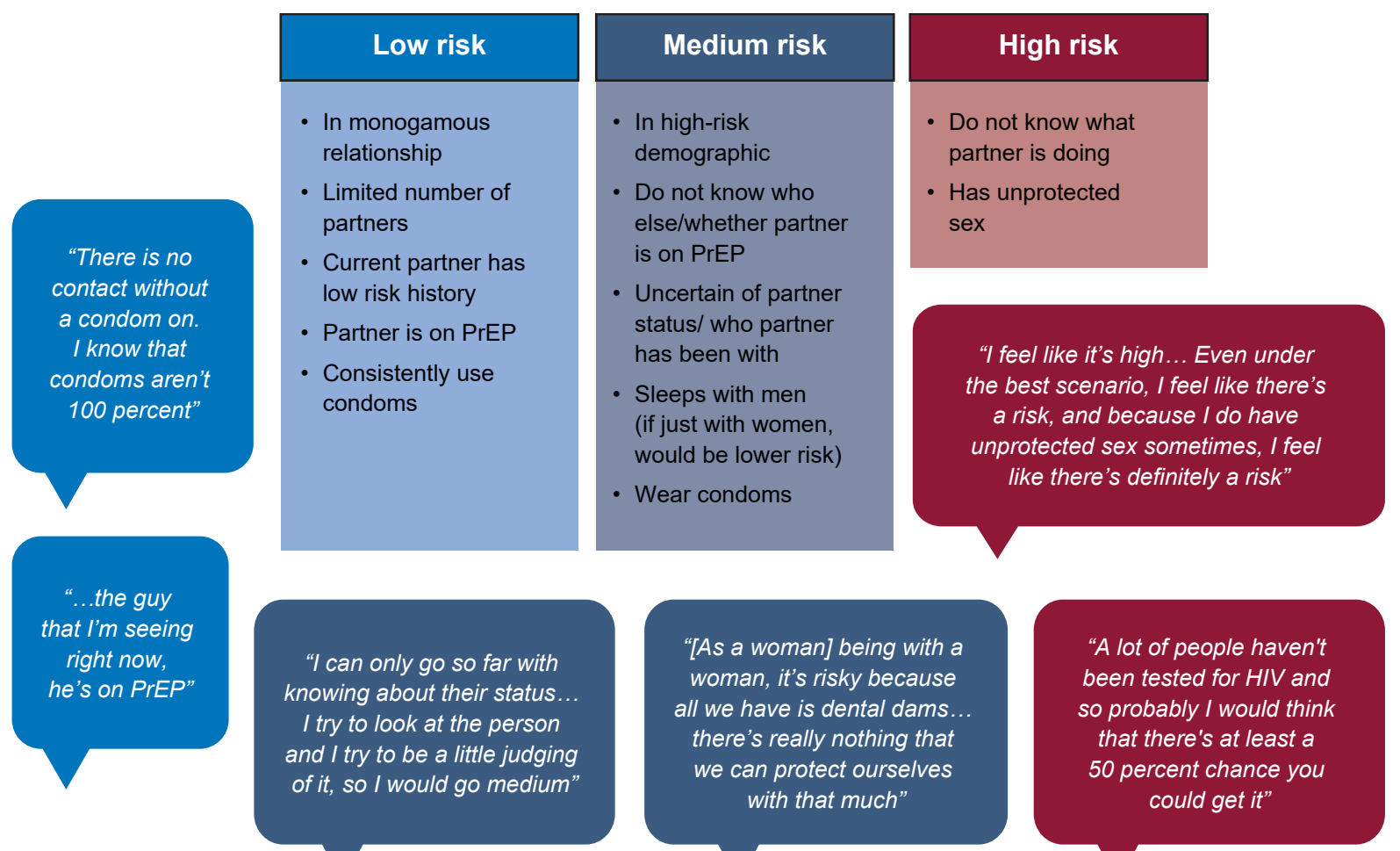
- Participants were asked to self-identify their risk of acquiring HIV-1 and how they came up with their response. Based on the responses, they were assigned to a low-, medium-, and high-risk category
 - Of the participants who indicated their perceived risk of acquiring HIV-1 (n=18), greater proportions of PN and FP respondents identified as low risk (50% [n=4/8] and 67% [n=4/6], respectively) compared with CP respondents (0% [0/4])
 - Interview transcript analysis identified the reported drivers of perceived risk and risk behaviors/themes were then stratified by risk level (**Figure 3**)

Figure 2. Participant Responses for How Often They Are Tested for HIV-1



CP, current PrEP user; FP, former PrEP user; PN, PrEP-naïve PWPB; PrEP, pre-exposure prophylaxis; PWPB, people who would benefit from pre-exposure prophylaxis.

Figure 3. Reported Factors Influencing Perceived Risk of Acquiring HIV-1 by Respondent-Assessed^a Risk Level



^aRisk categorization is based on responses to the moderator question: What would you say your risk is of getting HIV? Some participants self-identified their category, some were specifically asked which one of low, medium, or high applied, and finally others were categorized based on how they described themselves and words that were similar to high, medium, or low. PrEP, pre-exposure prophylaxis.

PrEP Awareness Sources

- Participants first learned of PrEP via a mix of sources including: social media/news/advertisements; doctor/healthcare service/HIV testing clinics; partner/social circles/friends
 - Some participants indicated a lack of representation in marketing materials, leading them to believe the medicine was only for young, gay males

Factors Identified as Influencing PrEP Initiation

- Participants initiated PrEP mainly to take precautions because of sexual behavior and/or because of a recommendation by a trusted physician
- Convenience, cost, short- and long-term side effects, and effectiveness were all important factors to participants in the consideration of taking PrEP
 - Participants were uncertain about the long-term efficacy of infrequently administered options

Reasons FP Participants Provided for Stopping PrEP Use

- Reasons for stopping PrEP included inconsistent use, side effects, inconvenience, and behavioral changes

Feelings about PrEP

- Frequent words/concepts used by respondents regarding their feelings around PrEP are shown in **Figure 4**
- Participants reported that using PrEP was associated with positive, empowering emotions
- Elements of concern over stigmatization were reported
 - Some participants indicated that marketing campaigns may help address stigma and increase PrEP awareness

Figure 4. Frequency of Words/Concepts^a Respondents Identified Regarding Their Feelings Around PrEP

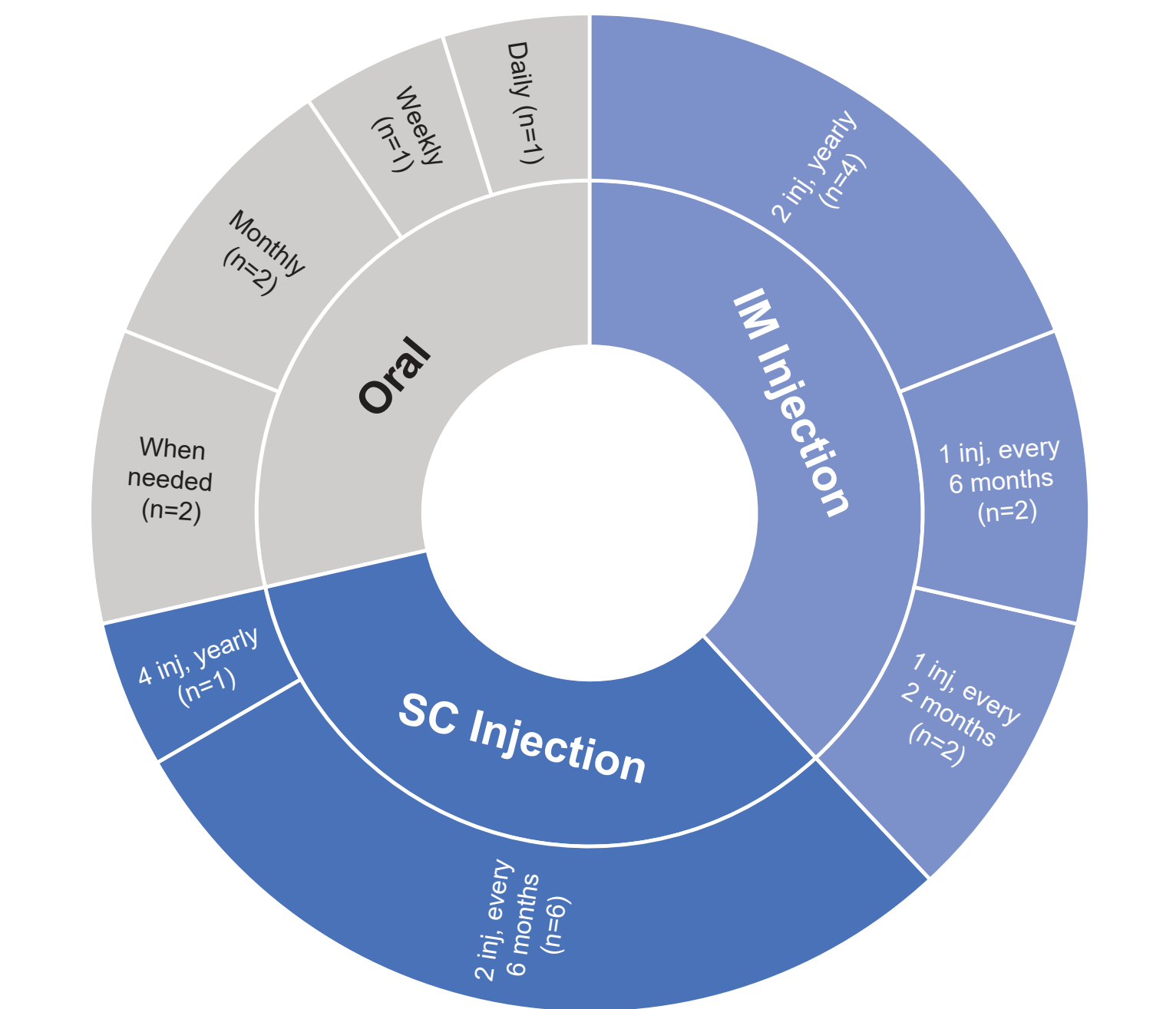


^aWords were shown scattered on a screen-sharing platform and respondents were asked to choose those that describe how PrEP makes them feel. The word cloud shows the words selected by respondents, and the font size is proportional to the selection frequency. PrEP, pre-exposure prophylaxis.

PrEP Modality/Medication Preferences

- Most participants reported they would prefer injection over oral PrEP medications (**Figure 5**)
 - PrEP modality preferences were relatively similar among the subgroups
 - Preference for long-acting injections was primarily driven by the lower frequency of administration
 - Preference for oral PrEP was driven by pain/fear of needle, convenience of home administration and incorporation into existing pill regimen, and perceived efficacy
- Preference for PrEP administration locations was driven by comfort levels, privacy concerns, and/or convenience
 - Doctor's office or clinic was preferable because of discretion, friendly staff, locality, and trust in PrEP-use recommendations
 - Pharmacies were preferred for increased convenience, particularly if PrEP is administered more than once a year

Figure 5. PrEP type and frequency preferences^a



^a1 respondent provided two preferences. IM, intramuscular; inj, injection; PrEP, pre-exposure prophylaxis; SC, subcutaneous.

Limitations

- This exploratory qualitative study is limited by the low sample number, precluding any statistical analysis