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# Preferences for and concerns about using long-acting injectable pre-exposure prophylaxis among gay and bisexual men

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# Background

- Gay, bisexual, and other men who have sex with men (GBM) are disproportionately affected by the HIV epidemic<sup>1</sup>
- Oral pre-exposure prophylaxis (PrEP)
  - Highly effective in reducing HIV risk<sup>2</sup>
  - US FDA approved for daily-oral use<sup>3</sup>
  - CDC-recommended for many GBM<sup>4</sup>



# Barriers to Oral PrEP

## ■ Reported worries from GBM and transgender women:<sup>5</sup>

- Long-term health effects
- Potential side effects
- Incomplete HIV protection
- Routine medical check-up requirements



## ■ Other barriers to oral PrEP:<sup>6-7</sup>

- Pill burden
  - Identified as a reason to prefer intermittent over daily PrEP
- HIV pill stigma
  - Perceptions of being HIV-positive
  - Shamed as a “truvada whore”

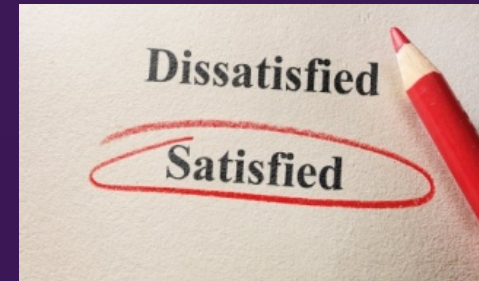


# What's next in the form of PrEP dosing?



# Long-Acting Injectable PrEP (LAI-PrEP)

- LAI-PrEP currently being tested in Phase 2a clinical trials
  - HPTN 077 – US, Brazil, and sub-Saharan Africa (NCT02178800)
  - ÉCLAIR in the United States (NCT02076178)
- Preliminary data from ÉCLAIR:<sup>8</sup>
  - Participants satisfied with LAI-PrEP
  - Preferred to continue dosing via LAI-PrEP instead of daily oral PrEP



# Purpose Statement

## ■ Prior research has studied:

- LAI-PrEP preference compared to oral PrEP (and implants) among GBM<sup>9-11</sup>
  - However, most participants were not *current* oral PrEP users

## ■ Research Questions:

1. Have GBM on oral PrEP heard of LAI-PrEP?
2. Will GBM on oral PrEP transition to LAI-PrEP, should it come available?
3. What barriers might prevent them doing so?



# METHODS



# PrEP & Me:

## *Club Drug Use and PrEP Adherence in Vulnerable Men*

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# Recruitment & Eligibility

## ■ Recruitment:

- Recruited via targeted sampling (online, gay hookup websites & apps, venue-based sampling, and social media)

## ■ Eligibility:

1. 18 years or older,
2. Cisgender male
3. Identify as gay or bisexual
4. Taking PrEP for at least 30 days, but not via a research study
5. Reside in the New York City area
6. Have internet access (for study components, not discussed here)
7. ~ Half targeted to be club drug users (ketamine, MDMA/ecstasy, GHB, cocaine, or meth)



# Description of LAI-PrEP

- Participants were presented the following overview:<sup>10</sup>

*Scientists are also working to make a different kind of PrEP that would not require taking a pill every day. Instead, it would involve getting an injection or shot in the muscle of the butt every month or perhaps only every three months. Based on past experiments, scientists believe that this new drug can work similarly to daily oral PrEP to prevent HIV, but conclusive results from human trials have not yet been obtained. We are interested in knowing some of your opinions about this second form of PrEP, which we will call “long-acting injectable PrEP” due to the fact that the injections would last from one to three months.*

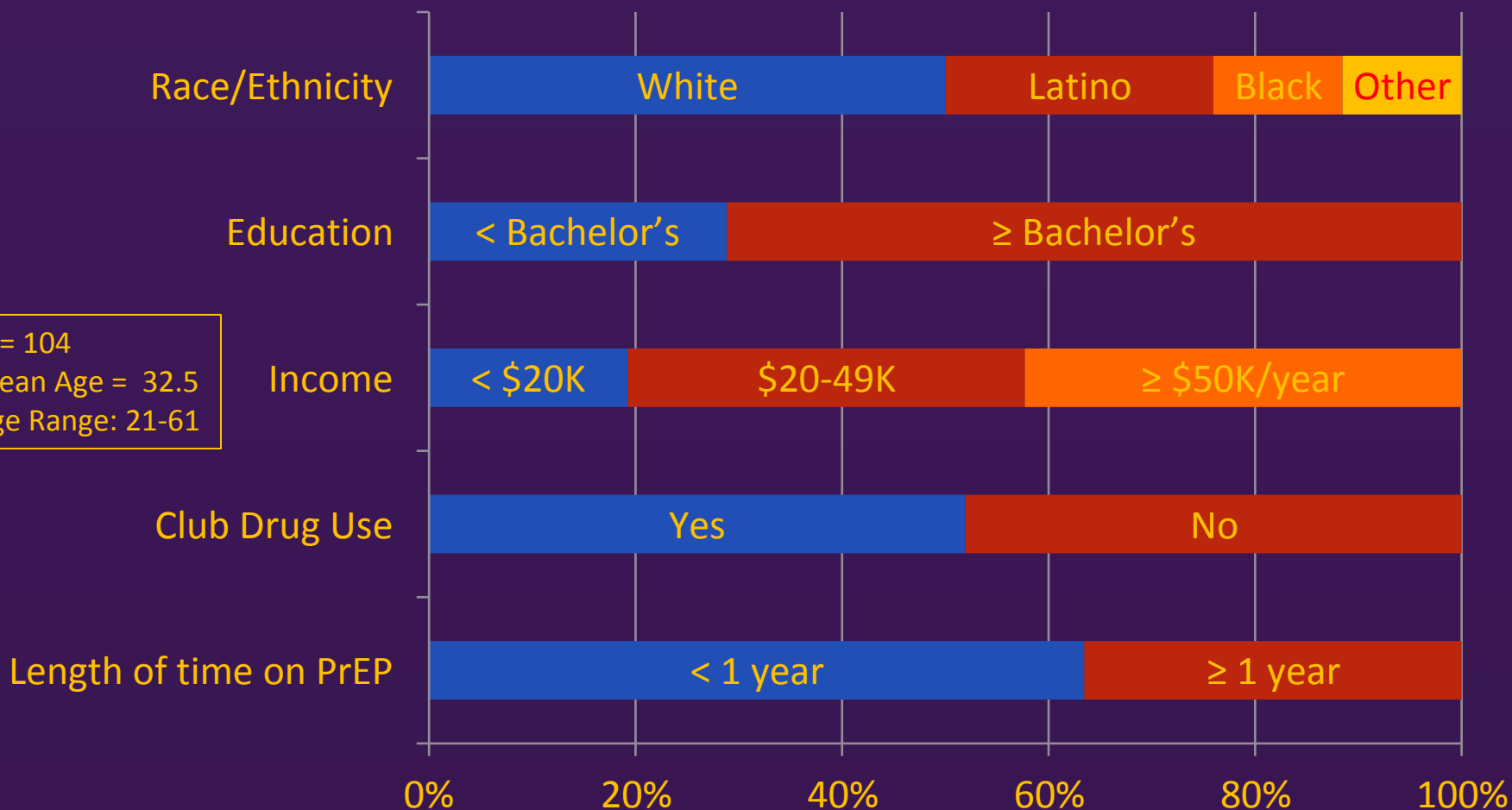
# Measures & Data Analysis

- Demographics, club drug use, and PrEP use
- Awareness of LAI-PrEP:
  - “I’ve never heard of it before today” to “I know a lot about it.”
- Preference for PrEP dosing:
  - LAI-PrEP
  - Daily oral PrEP
  - Either LAI-PrEP or daily PrEP – no preference
  - Either LAI-PrEP or daily PrEP – whichever is more effective
- Concerns about LAI-PrEP:
  - Adapted measures from oral PrEP barriers<sup>10</sup>
- Data analysis – multivariable logistic regression
  - Adjusting for age, race/ethnicity, education, and income

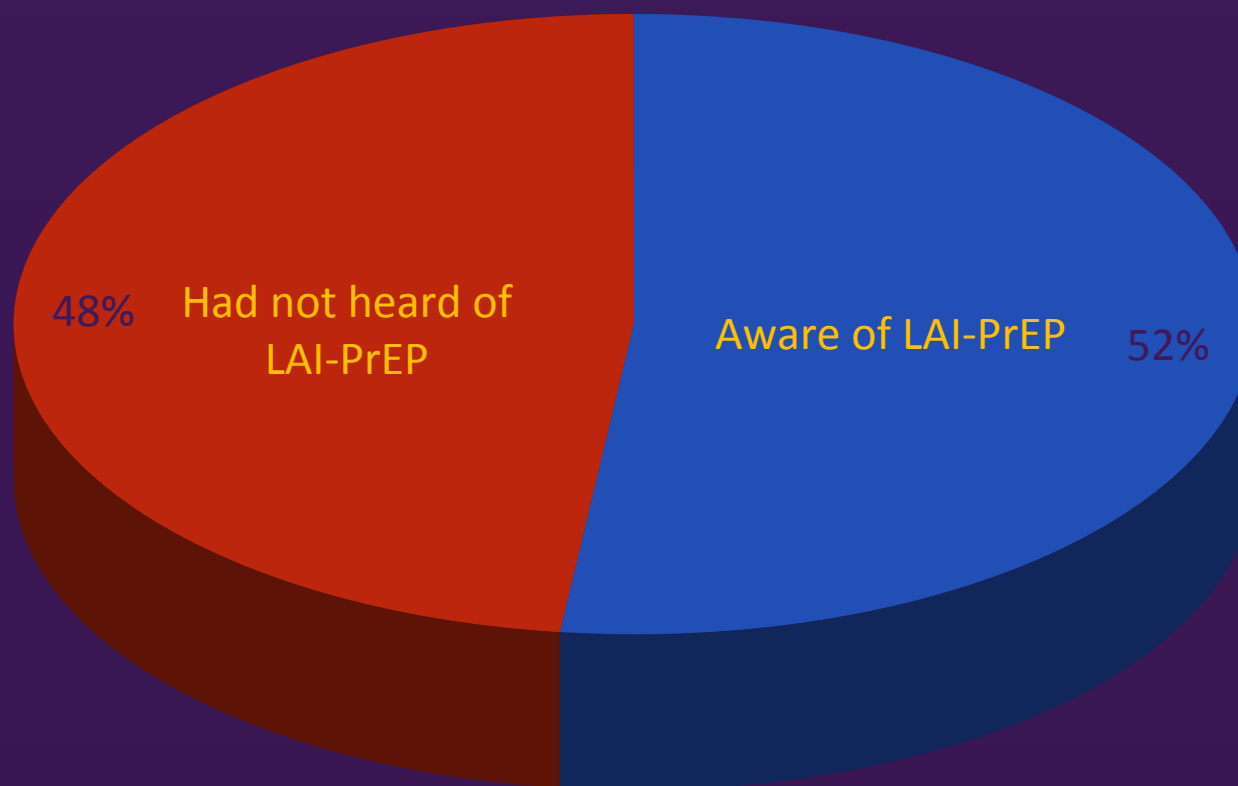
# RESULTS

# Demographic Characteristics

N = 104  
 Mean Age = 32.5  
 Age Range: 21-61



# LAI-PrEP Awareness

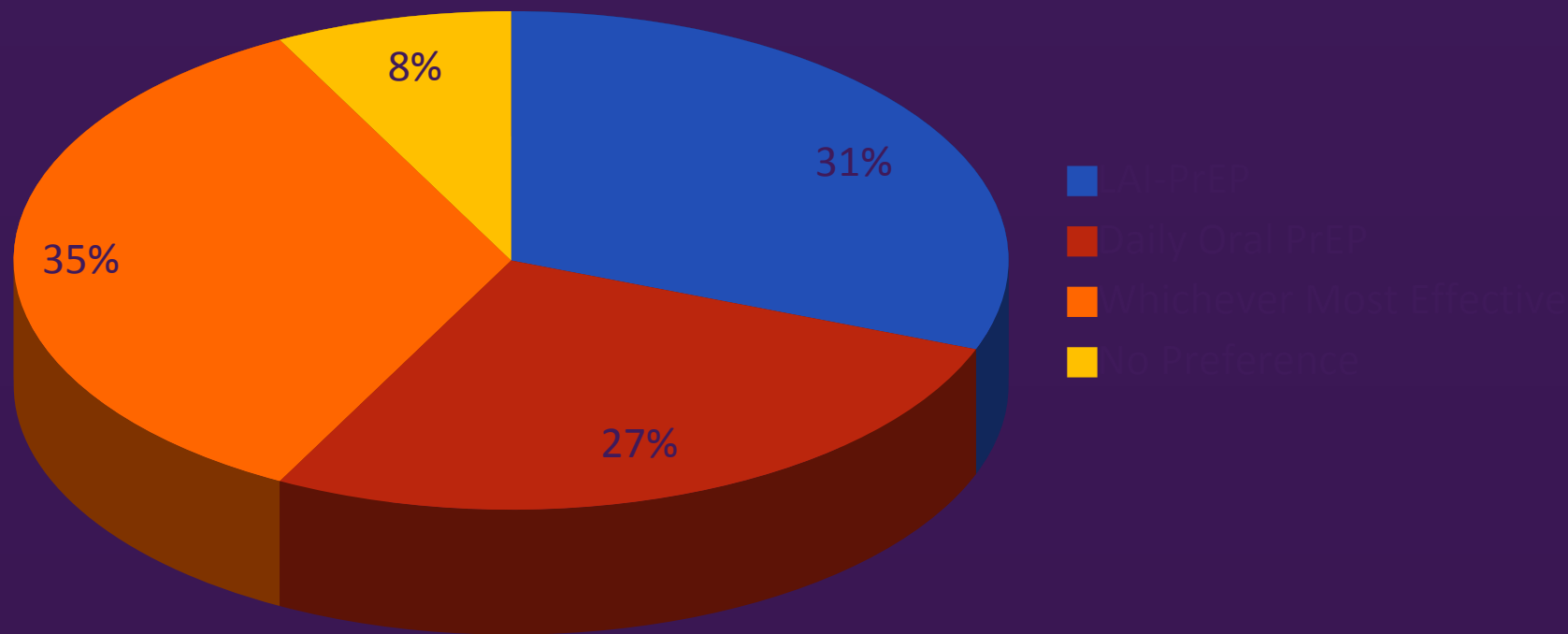


# LAI-PrEP Awareness

- No significant differences by age, race/ethnicity, education, income, or club drug use.
- On PrEP for more than 1 year
  - LAI-PrEP Awareness: AOR = 9.89 (3.38-28.95, 95% CI)

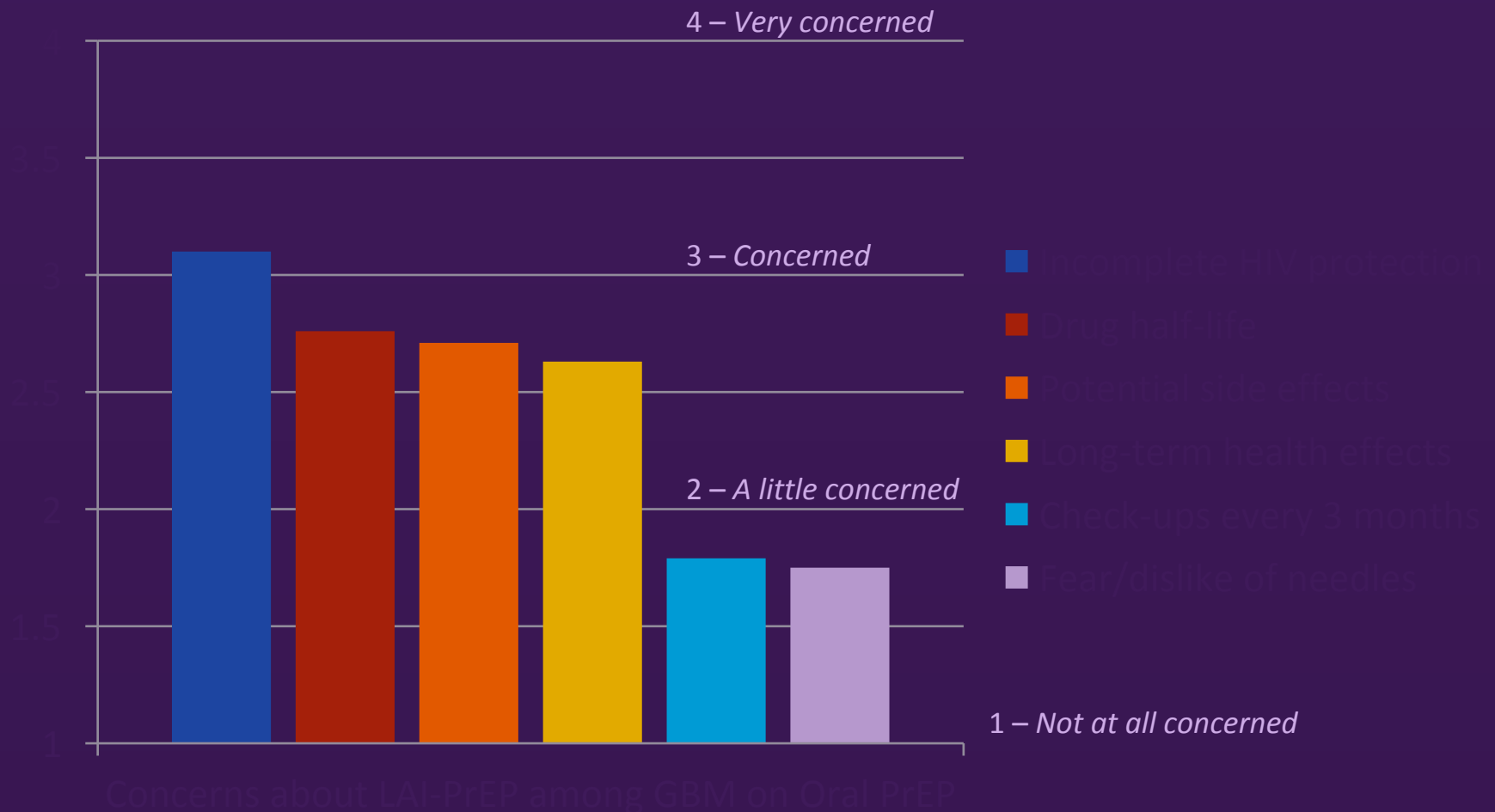


# PrEP Dosing Preferences



PrEP Dosing Preferences among GBM on Oral PrEP

# Concerns about LAI-PrEP



# LAI-PrEP Preference

- No significant differences by age, race/ethnicity, income, or club drug use.
- Educational attainment ( $\chi^2 = 5.0, p \leq 0.05$ ):
  - Less than a Bachelor's degree: LAI-PrEP Preference = 46.7%
  - Bachelor's degree or more: LAI-PrEP Preference = 24.3%
- On PrEP for more than 1 year:
  - LAI-PrEP Preference: AOR = 2.24 (0.85-5.88, 95% CI,  $p \leq 0.10$ )

# Concerns and LAI-PrEP Preference

- No significant effects on LAI-PrEP preference for:
  - Concern about the long-term effects on my health
    - **AOR = 0.97** (0.61-1.54, 95% CI)
  - Concern about the potential side effects
    - **AOR = 0.85** (0.51-1.42, 95% CI)
  - Concern about my fear/dislike of needles
    - **AOR = 0.77** (0.49-1.21, 95% CI)
  - Concern about having to return for medical check-up and injection quarterly
    - **AOR = 0.72** (0.44-1.18, 95% CI)



# Concerns and LAI-PrEP Preference

- Most important concerns associated with LAI-PrEP Preference:
  - Concern about the possibility of incomplete protection against HIV
    - **AOR = 0.45** (0.27-0.76, 95% CI)
  - Concern about possibility that LAI-PrEP might “wear off” if I don’t return on time for next injection
    - **AOR = 0.55** (0.33-0.90, 95% CI)



# Implications

- ~1/3 of GBM on oral PrEP would *prefer* LAI-PrEP
  - Some men could change dosing forms should LAI-PrEP come available
  - More men preferred LAI-PrEP compared to oral PrEP
    - Current USFDA approved dosing forms of PrEP are not meeting many users' preferences right now
  
- But... Even oral PrEP users still have concerns about LAI-PrEP
  - Level of HIV protection matters
  - Drug half-life (longevity of protection) matters

# Discussion

- Nearly half of GBM had not heard of LAI-PrEP previously
  - Oral PrEP users likely have higher knowledge of PrEP dosing than those who have yet to initiate oral PrEP – implications for PrEP *uptake* overall
  - Men who worry about pill burden and stigma could be earlier adopters, as could those who experience difficulty with oral PrEP *persistence*



# Limitations

- Modest sample size ( $N=104$ ) and NYC cis-men only
- Information provided about LAI-PrEP
  - More or less detailed information could have differential influence
  - Who delivers information might matter
  - Information may change based on RCT findings (e.g., # of shots)
  - We do not yet know how effective, length of protection, cost, or insurance coverage of LAI-PrEP yet...





# Conclusions

- Findings from ongoing clinical studies will likely influence whether oral PrEP users consider transitioning to LAI-PrEP
  - *If* LAI-PrEP is more effective than daily oral PrEP,
  - *Then* 65% of men would prefer LAI-PrEP over daily oral PrEP



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# Thank you

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