

Adherence to Pre-Exposure Prophylaxis (PrEP) Among Gay and Bisexual Men: Prevalence and Predictors of Missed Doses

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Presented at the 10th Annual Meeting of the
International Association of Providers and AIDS Care (IAPAC)
Miami, FL- Tuesday, June 30 from 9:15 – 10:15 AM



Background

- The prevalence of HIV for gay and bisexual men (GBM) continues to grow. GBM accounted for 65% of new diagnoses in 2013, a 12% increase since 2008.
- The most promising prevention tool currently available is a once-daily pill called Truvada.



Introduction to once-daily PrEP

- Truvada, a mix of Emtricitabine and Tenofovir, is commonly called PrEP (Pre-Exposure Prophylaxis).
- When adherence of once-daily is met, PrEP has been shown to be as high as 95% effective in the prevention of HIV.
- However, demonstration projects have found adherence to be suboptimal.

Demonstration Studies

- Most demonstration studies have used samples of sero-discordant heterosexual couples and female sex workers- with samples commonly from Asian and African countries. Common reported rates vary from 75%-95%.
- The 2010 Pre-exposure Prophylaxis Initiative (iPrEX) gave us our first look at PrEP adherence among gay and bisexual men (GBM). 93% self-reported correct adherence.
- Other studies exploring adherence to PrEP, have reported correct adherence in self-report measures to be commonly around 90%.

Question:

What are the prevalence and predictors of missed doses of PrEP for GBM who are NOT part of a demonstration study?

Hypothesis

- Gay and bisexual men who are not part of a demonstration study and are taking PrEP at their own volition will have high rates of adherence.



Method

One Thousand Strong:

Syndemics & Resilience for HIV Transmission in a National Sample of Vulnerable Men

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Funded by the National Institute of Drug Abuse:

R01 DA03646



CHEST

Center for HIV Educational
Studies & Training

Methods

- Community Marketing and Insights (CMI)
- Eligibility
 - Live in U.S. with a permanent U.S. mailing address
 - 18 years and older
 - Biologically male and identify as male
 - Self-identify as gay/bi
 - English comprehension
 - Internet access
 - Device for taking digital pictures
 - Self-identify as HIV-negative and willing to complete at-home self-administered rapid HIV antibody, chlamydia, and gonorrhea testing.
 - Report having sex with another man in the past year

Data Collection

- At baseline, they were initially screened for eligibility then completed an at-home CASI, at-home HIV and STI testing, and a post-test CASI before becoming officially enrolled.
- Our final sample for One Thousand Strong consists of 1,071 HIV-self-identified GBM.
- Data for this study is limited to participants that completed a 6M follow-up at-home CASI, and reported currently being prescribed PrEP (6%, n=53).

Tell us about your adherence...

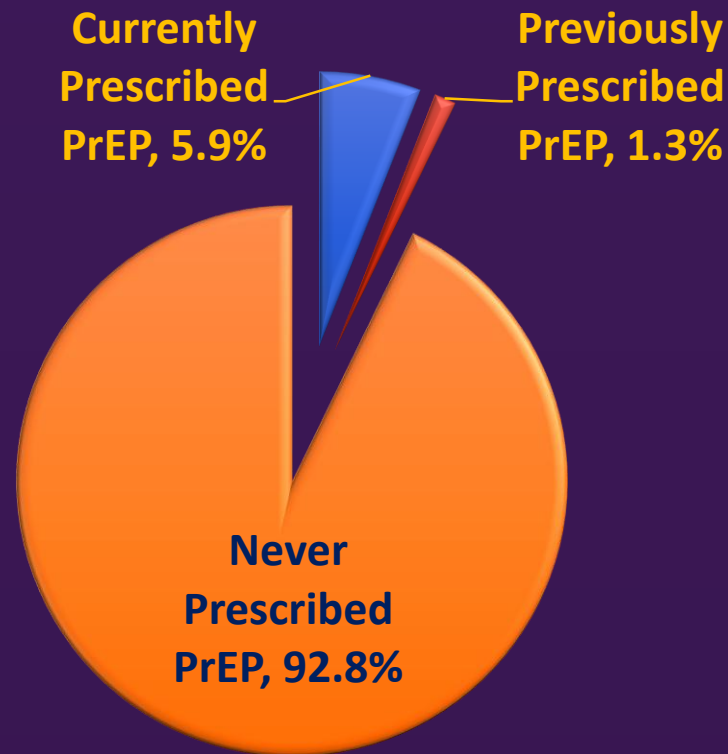
Participants reported demographics and answered questions about their PrEP adherence.

- In the last 30 days, on how many days did you miss a dose of your PrEP medication?
- In the last 90 days, on how many days did you miss a dose of your PrEP medication?
- How long ago was your last missed dose?
 - Had you used drugs/alcohol that day?
- Did you engage in any of the following sexual activities the day BEFORE you missed your medication?
- Did you engage in any of the following sexual activities the SAME day you missed your medication?
- Why do you think you missed that dose?

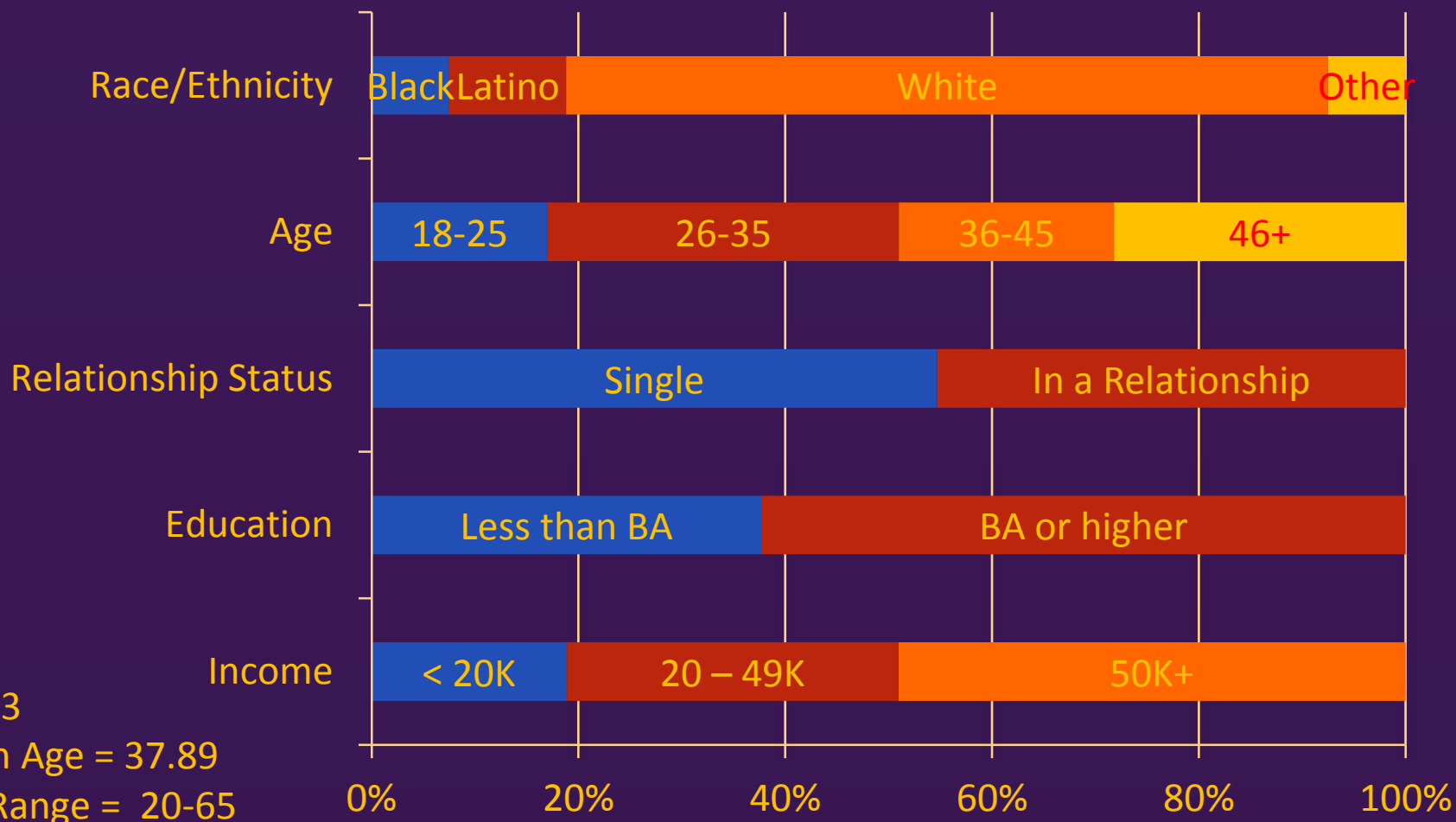
Results

PrEP Use at 6M Survey

- Of those who completed the 6M survey ($n = 950$, 89%):



Demographic Characteristics

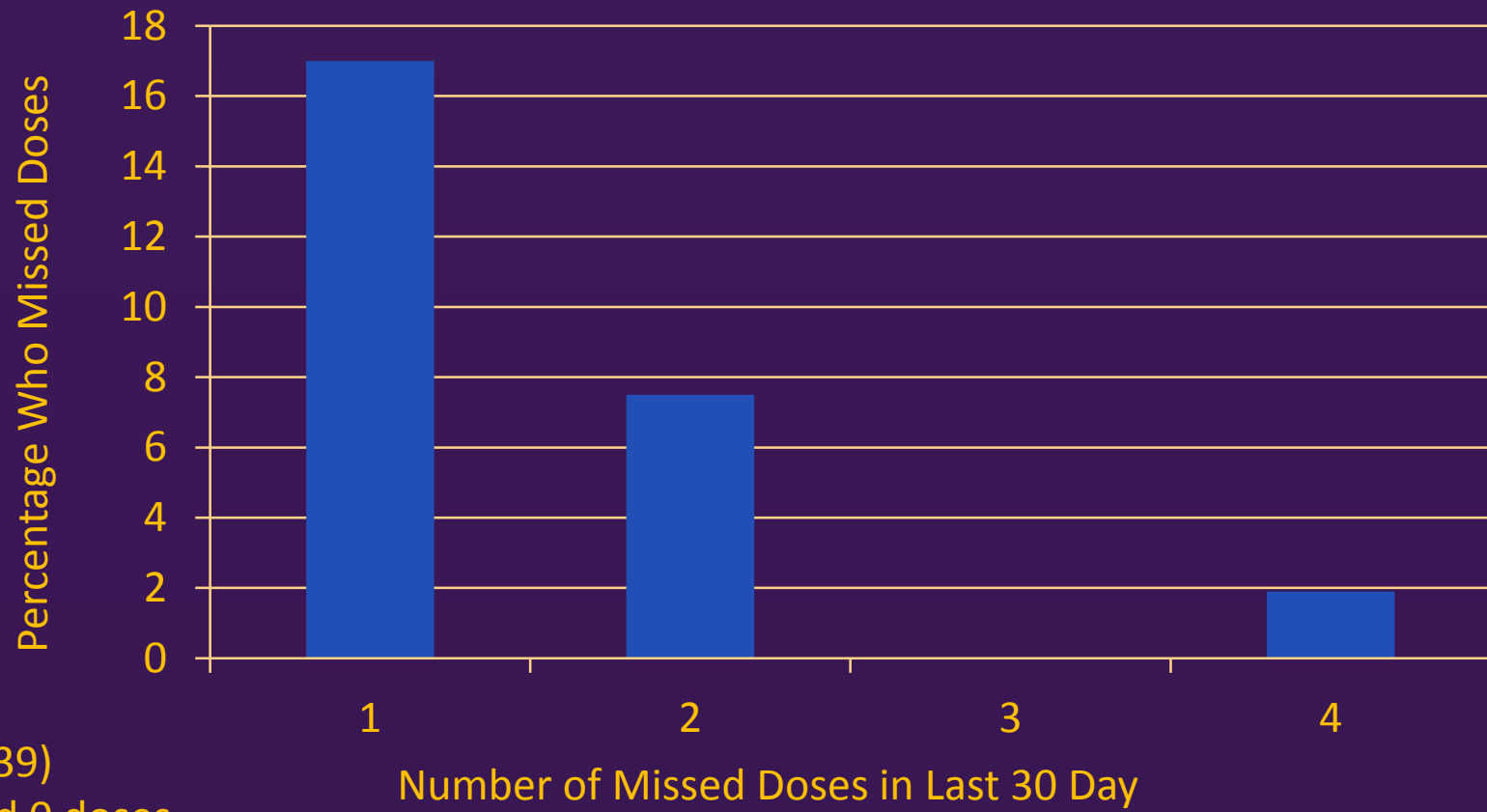


N = 53

Mean Age = 37.89

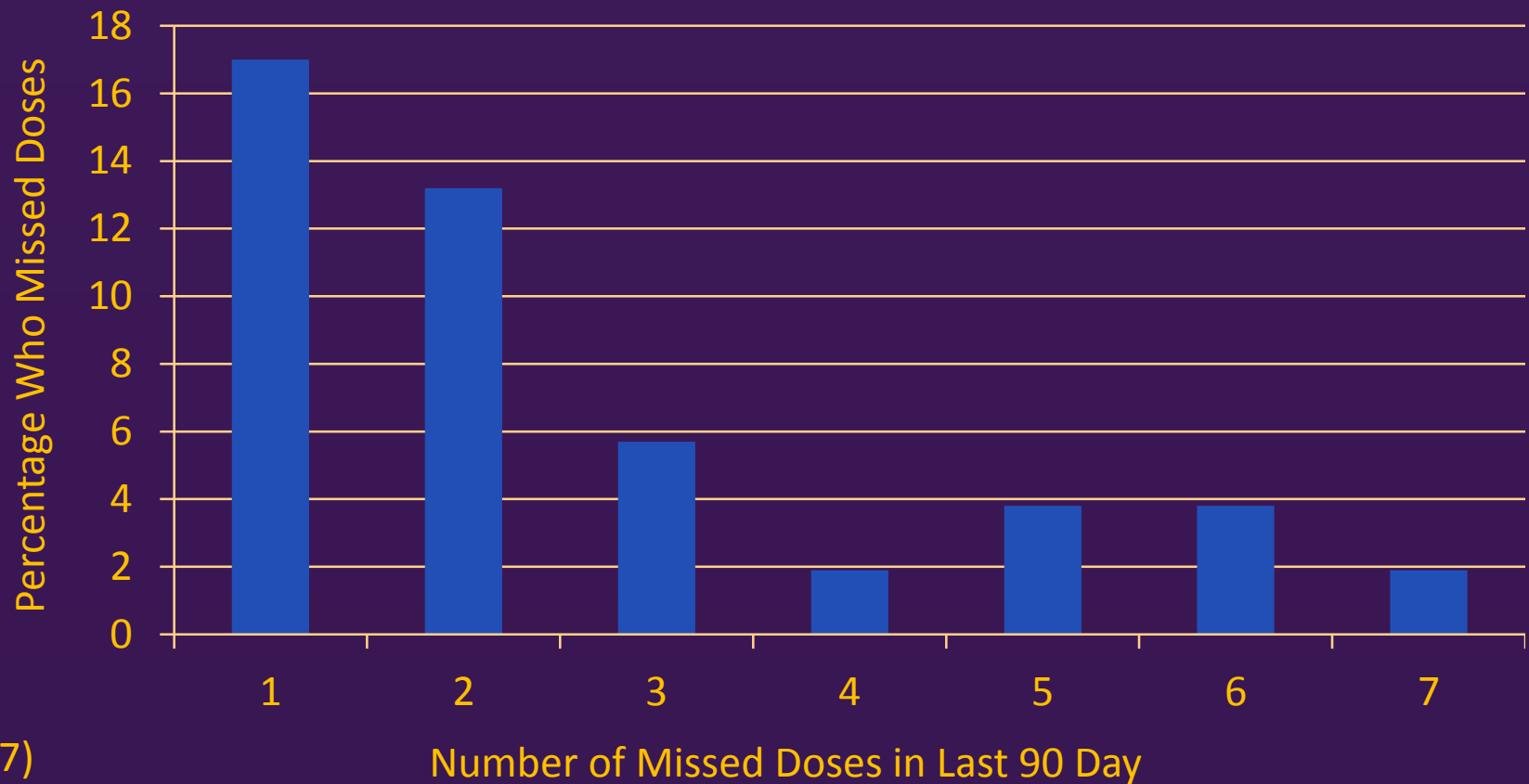
Age Range = 20-65

Missed Doses in Prior 30 Days



74% (39)
missed 0 doses

Missed Doses in Prior 90 Days



51% (27)
missed 0 doses

Who missed doses?

- No significant differences were found for race/ethnicity, relationship status, or income.
- However, a greater portion of men with a college degree (77%) than without (23%) had missed a dose in the last 90 days; $p < .05$.
- Younger men were more likely to report a missed dose, 32.96 vs. 42.63 years old; $p < 0.01$.

Who missed doses? Cont...

- Drugs and Alcohol-
- 27% (n=7) of the 26 who missed a dose in the last 90 days reported having at least one drink the day of a missed dose. However, only 1 of those 7 had more than 2 drinks.
- 23% (n=5) of the 23 who missed a dose reported drug use the same day as missing a dose.

Reasons reported for missing doses

- The most common reported reasons for missing a dose were forgetting (50%, n=13) followed by being somewhere other than home (26.9%, n=7).
- 8% (n=2) reported missing because “I was drinking”.

Sexual Risk

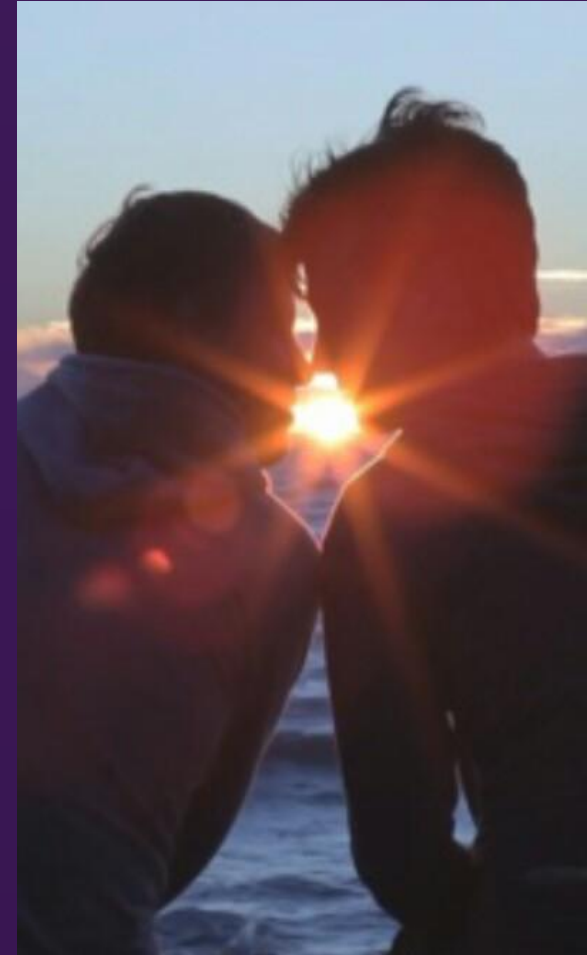
- As for sexual behavior, only 2 (8%) participants (of 26) reported HIV transmission risk behavior (unprotected anal intercourse) either the day before or the day of a missed dose.



Discussion

Implications

- This study indicated that GBM who are taking PrEP of their own volition have relatively high adherence.
- Truvada has recently been shown to be effective in the prevention of HIV when taken at 3 doses a week. Thus, the participants in this sample likely had little potential exposure in the rare occasion that a dose was missed.



Limitations

- Data were collected via self-report follow-back measures. Other research has shown that this data collection technique for adherence may not be the most accurate.
- We did not collect any biomarkers as indicators of actual medication adherence.
- The sample is predominantly white.
- This sample, overall, is not high on substance use. High substance users should be researched for adherence patterns.

Remaining questions

- Using a larger sample, is there a trend in income, education, and mood that may lead some people to miss doses more frequently?
- Does ethnicity/race play a role in adherence for GBM who are on PrEP at their own volition?
- What tools/interventions can be implemented to help GBM remember to take their medication?
- Why do some GBM make the choice to go on PrEP whereas others do not?

Acknowledgements

- The entire team of CHEST staff and interns, with special thanks to Demetria Cain, Mark Pawson, Michael Castro, Ruben Jimenez, Chloe Mirzayi
- Our Co-Investigators & consultants - Drs. Tyrel Starks, Ana Ventuneac, Patrick Sullivan, Steven Kurtz, Beryl Koblin, Victoria Frye
- National Institute on Drug Abuse
 - Syndemics & Resilience for HIV Transmission in a National Sample of Vulnerable Men (R01-DA036466; MPI: Parsons & Grov)
 - Jeffrey Schulden, Project Officer
- Community Marketing & Insights (CMI)
- Our participants who volunteered their time



Thank you

For a copy of these slides or further questions,
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