

Dangerous Disinformation: Using health discussion networks to mitigate damaging effects on PrEP uptake from frivolous advertising of Tenofovir disoproxil fumarate (TDF) lawsuits on social media

Drew A. Westmoreland, MSPH, PhD¹; Ian W. Holloway, PhD, LCSW, MPH²; Demetre Daskalakis, MD, MPH³; & Christian Grov, PhD, MPH^{1,4}

¹CUNY Institute for Implementation Science in Population Health, New York, NY; ²UCLA Luskin School of Public Affairs, Department of Social Welfare, Los Angeles, CA; ³New York City Department of Health and Mental Hygiene, New York, NY; ⁴City University of New York (CUNY) Graduate School of Public Health and Health Policy, New York, NY

Introduction

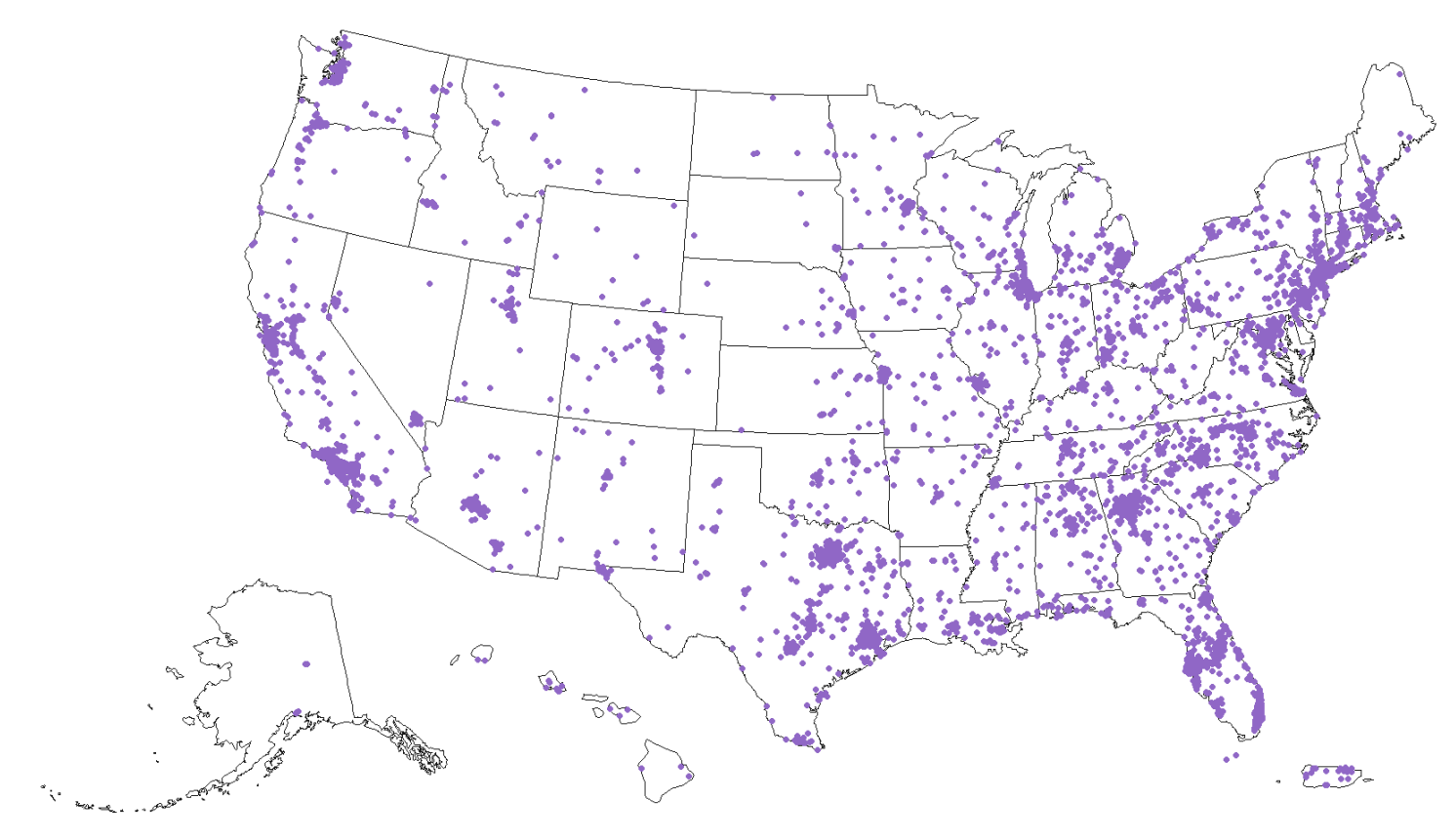
Tenofovir disoproxil fumarate/Emtricitabine (TDF/FTC, Truvada) as pre-exposure prophylaxis (PrEP), an effective method to prevent HIV, was FDA approved in 2012, but PrEP uptake among key populations has been slow in the U.S.^{1,2} In October 2019, Tenofovir Alafenamide/Emtricitabine (TAF/FTC, Descovy) was approved by the FDA and marketed as “safer” and “more effective” than TDF/FTC.³ Subsequently, ads have emerged on social media to recruit plaintiffs for lawsuits regarding non-demonstrated harms caused by TDF/FTC.⁴ The purpose of this study is to identify the role that discussion networks may have in mitigating effects of these negative ads on PrEP uptake and continuation.

Methods

Together 5,000 (T5K) U.S. nation-wide cohort study (Fig. 1)

- T5K is a U.S. nationwide study of HIV-vulnerable men and transgender persons who have sex with men to identify missed opportunities for HIV prevention.
- Enrolled Oct. 2017 – Jun. 2018 via sexual-networking apps
- N = 4734 18-51-year-olds at risk for acquiring HIV who completed 24-month follow-up (as of 7/1/2020)
 - NOTE: Data collection was interrupted by COVID-19 but has resumed
- Online questionnaire on sexual behavior, HIV-testing history, PrEP use, participants’ discussion networks, & the reach and impact of TDF lawsuit ads

Figure 1. Geographic distribution of T5K participants



Preliminary Analyses:

- Descriptive statistics
 - Mean IH score
 - Percent low and high IH
- Unadjusted multilevel logistic regression

Limitations

Results should be interpreted in light of its limitations. First, the cohort is fully online and, therefore, could be susceptible to fraudulent participants. Finally, study retention is an on-going challenge and data collection for the 24 month survey was interrupted by COVID-19.

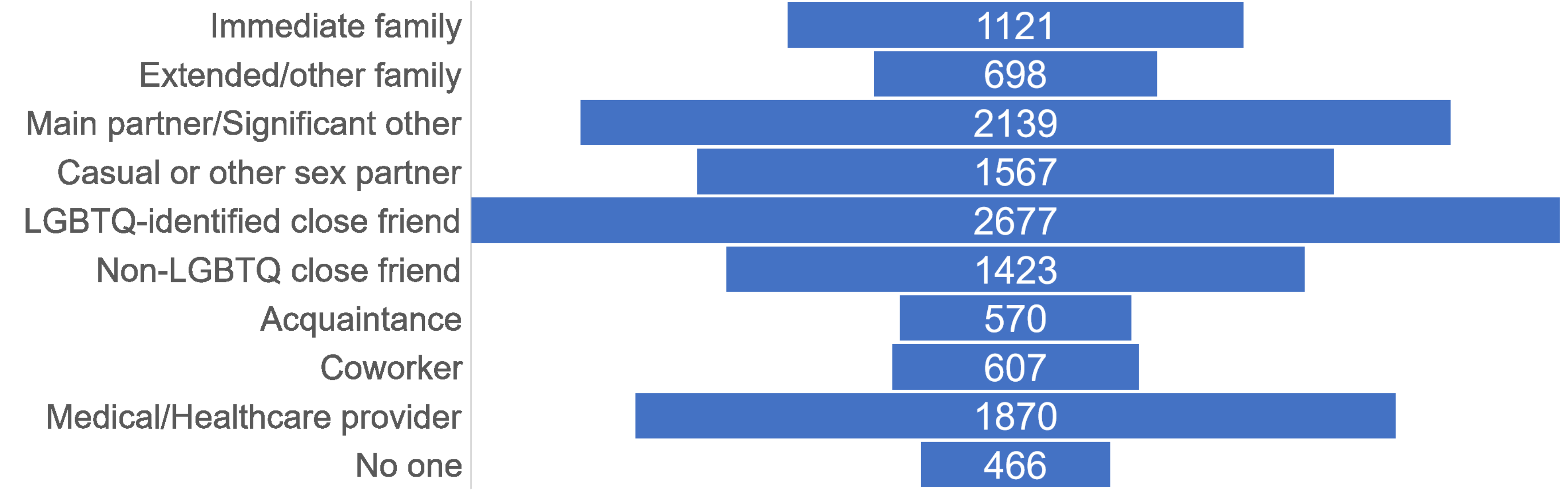
T5K participants’ PrEP attitudes were negatively impacted by TDF-related lawsuit ads on social media.

Social support networks may be an effective way to disseminate positive PrEP messages to counter these negative lawsuit ads.

Studies featuring the T5K cohort:



Figure 5. With whom participants are comfortable discussing PrEP (n = 4,734, select all that apply)



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Results

Figure 2. participants who have seen TDF lawsuit ads

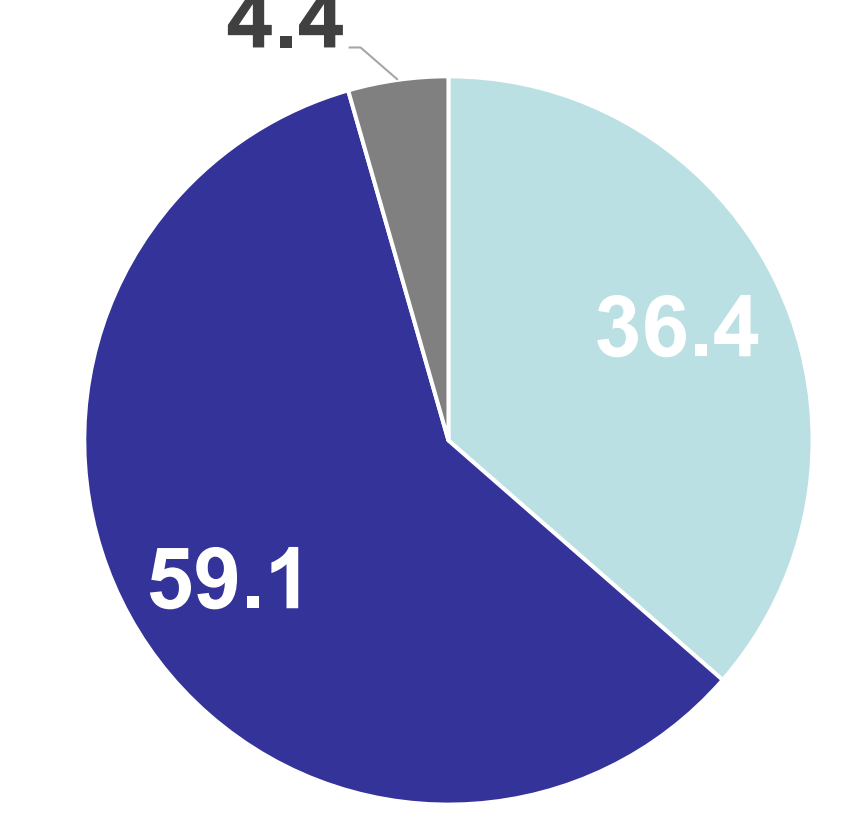


Figure 3. Impact of TDF lawsuit ads on perceived TDF safety

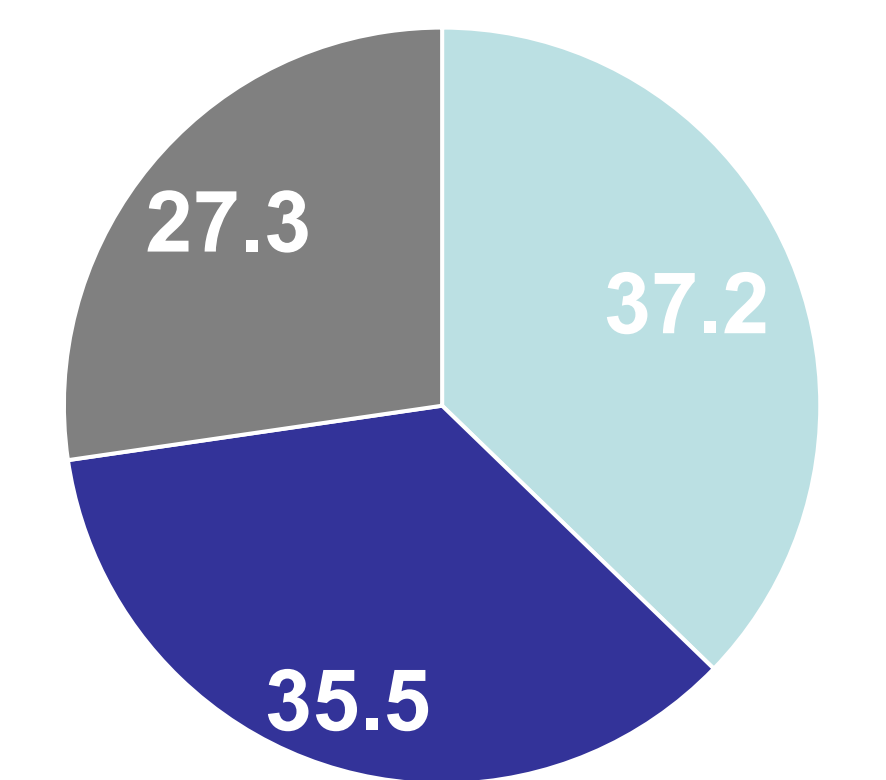
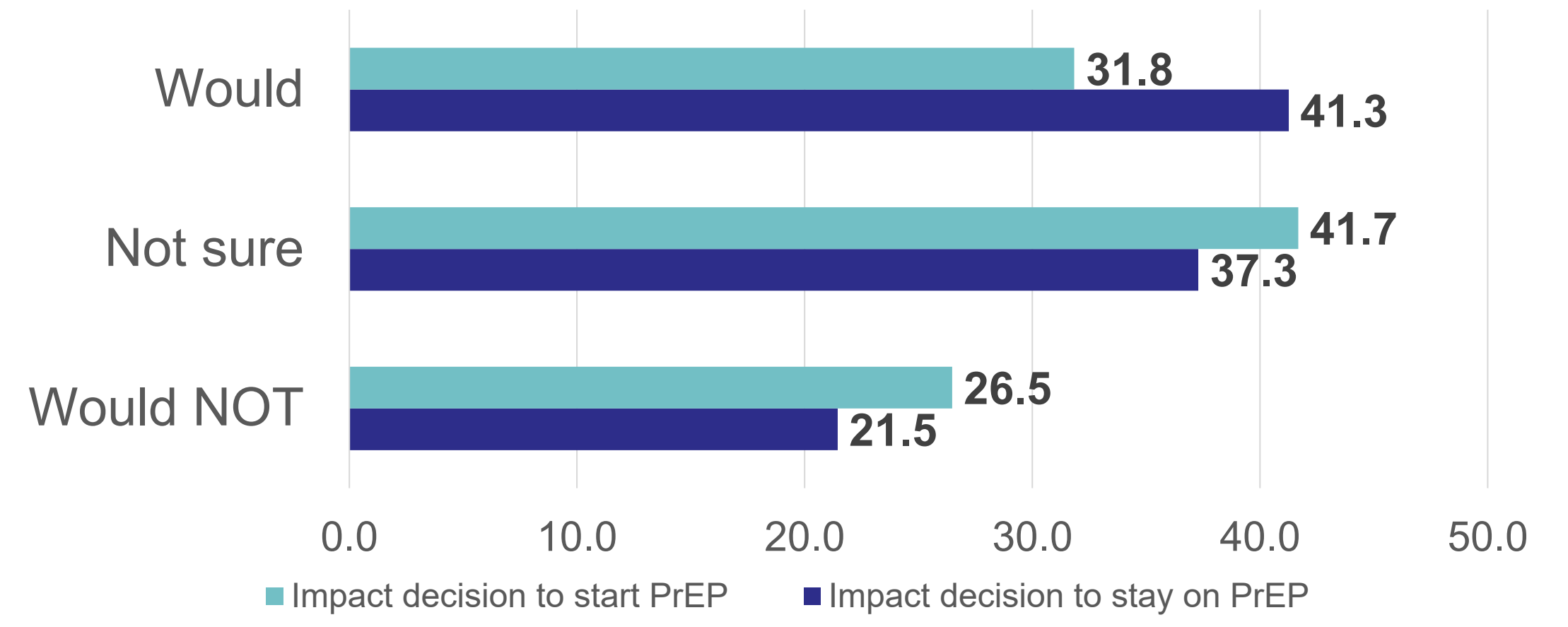


Figure 4. How TDF lawsuit ads impact PrEP decisions among T5K participants



Participants who would probably or definitely **start PrEP:**

- Comfortable discussing PrEP with...
 - Immediate family (OR= 1.8, 95% CI: 1.5-2.2)
 - Main partner or significant other (OR = 1.7, 95% CI: 1.4-2.0)
 - LGBTQ-identified close friend (OR = 2.1, 95% CI: 1.7-2.4)
 - Non-LGBTQ-identified close friend (OR = 2.1, 95% CI: 1.7-2.4)
 - Medical/Healthcare provider (OR = 1.4, 95% CI: 1.2-1.6)

Participants who would probably or definitely **stay on PrEP:**

- Comfortable discussing PrEP with...
 - Immediate family (OR = 1.7, 95% CI: 1.4-2.0)
 - Main partner or significant other (OR = 1.6, 95% CI: 1.3-1.8)
 - Casual sex partner (OR = 2.4, 95% CI: 2.0-2.8)
 - LGBTQ-identified close friend (OR = 2.2, 95% CI: 1.9-2.6)
 - Non-LGBTQ-identified (OR = 1.9, 95% CI: 1.6-2.3)
 - Medical/Healthcare provider (OR = 1.4, 95% CI: 1.3-1.6)

References

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³Krakower DS, Daskalakis DC, Feinberg J, Marcus JL. Tenofovir Alafenamide for HIV Preexposure Prophylaxis: What Can We DISCOVER About Its True Value? *Annals of Internal Medicine*. 2020.
⁴Romm T. Facebook ads push misinformation about HIV prevention drugs, LGBT activists say, 'harming public health'. *The Washington Post*. 2019. <https://www.washingtonpost.com/technology/2019/12/09/facebook-ads-are-pushing-misinformation-about-hiv-prevention-drugs-lgbt-activists-say-harming-public-health/>