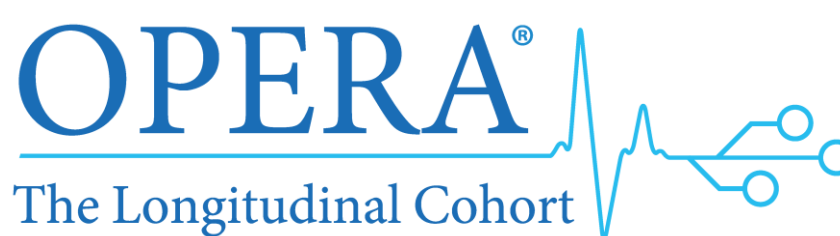


Screening Practices for HIV and Sexually Transmitted Infections During Cabotegravir Long Acting or Daily Oral Pre-Exposure Prophylaxis Use in the US



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Background

- HIV PrEP clinical care represents an opportunity to provide sexual health-related services
- Per CDC PrEP guidelines, HIV testing is required before PrEP initiation, recommended before each oral PrEP prescription refill, and recommended at the time of each cabotegravir long acting (CAB LA) PrEP injection
- Regular sexually transmitted infection (STI) screening is recommended by the CDC
 - Every 3 months for gonorrhea, chlamydia, and syphilis among men who have sex with men and transgender women who have sex with men
 - Every 6 months for gonorrhea and syphilis among heterosexual women and men
 - Every 12 months for chlamydia among heterosexual women and men

Objectives

To describe HIV and STI testing practices during CAB LA or oral PrEP use in the OPERA cohort

Methods

Study population

- OPERA cohort: prospectively captured, routine clinical data from EHRs in the US (90 clinics, 23 US states/territories)
- Inclusion criteria: ≥ 18 years old; no evidence of HIV; received ≥ 1 CAB LA injection or ≥ 1 oral PrEP prescription between 21DEC2021 and 30JUN2023
- Censoring criteria: 12 months after PrEP episode start; study end (30JUN2024); death

Analyses

- PrEP episode: continuous use of either CAB LA PrEP or oral PrEP
 - All episodes of PrEP use during the study period were included
- Testing
 - HIV tests: Ab, Ab/Ag, RNA
 - STI tests: syphilis, gonorrhea, chlamydia, chancroid, *Lymphogranuloma venereum*, *Mycoplasma genitalium*, herpes simplex-2, trichomoniasis, human papilloma virus/genital warts, HBV, HCV
 - All tests performed between 14 days before and 12 months after PrEP episode start were included
 - Multiple test types on the same day count as a single testing event
 - Incidence rates: univariate Poisson regression)
 - Timing of tests: all individuals were assessed for each testing interval, regardless of their risk group

Results

Figure 1. 12-month rates of HIV testing during CAB LA or oral PrEP use

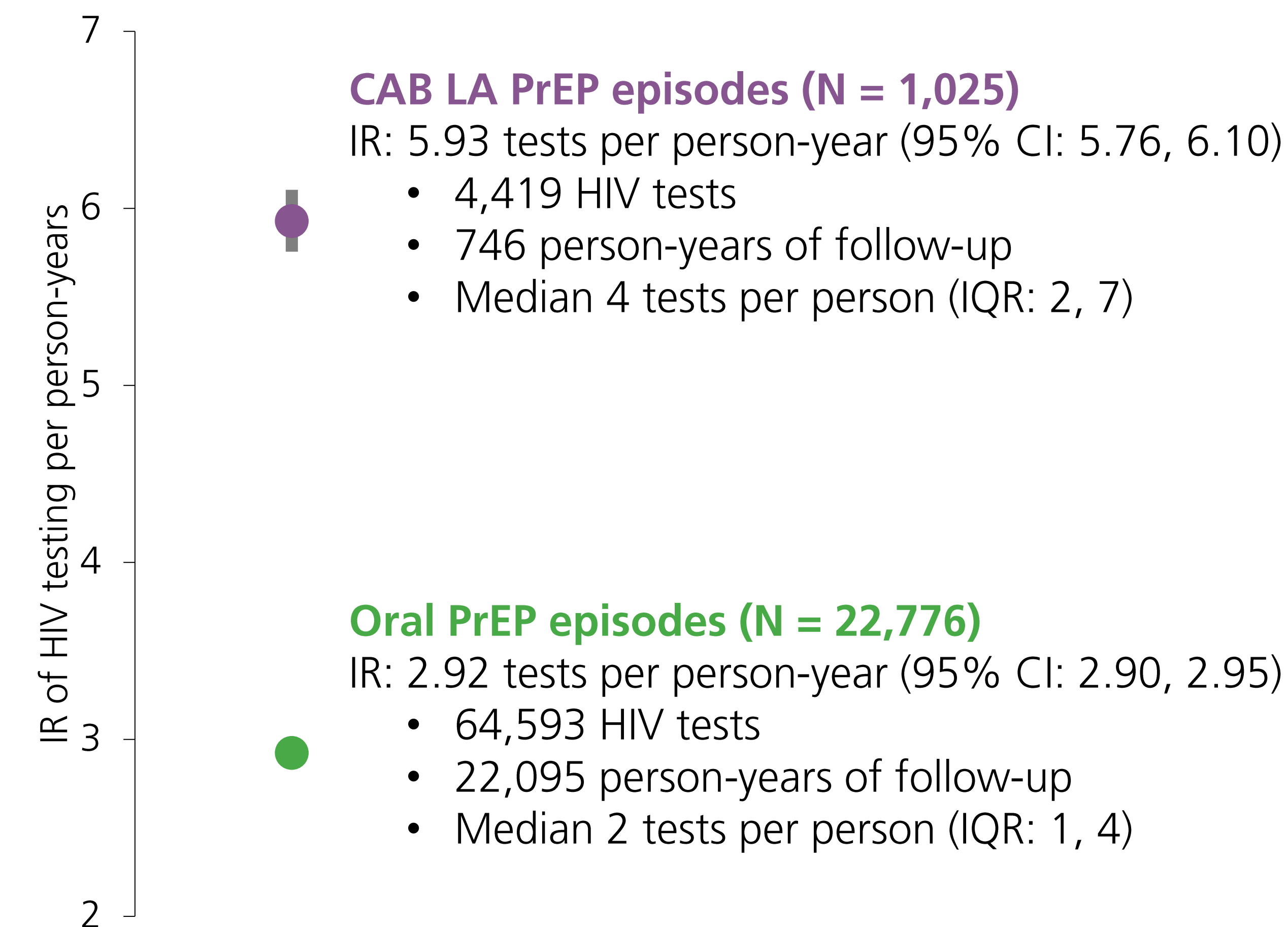


Figure 2. 12-month rates of STI testing during CAB LA or oral PrEP use

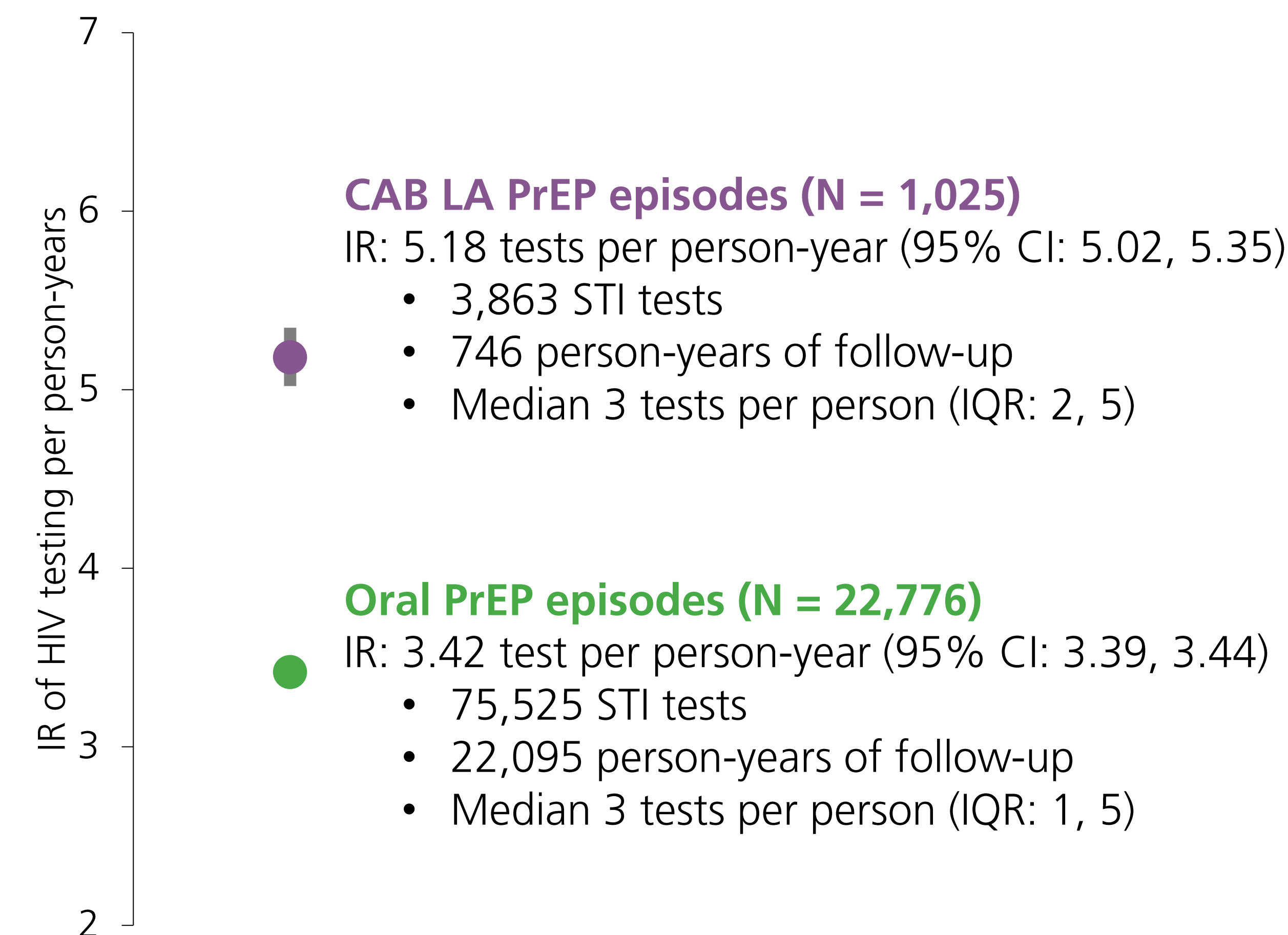
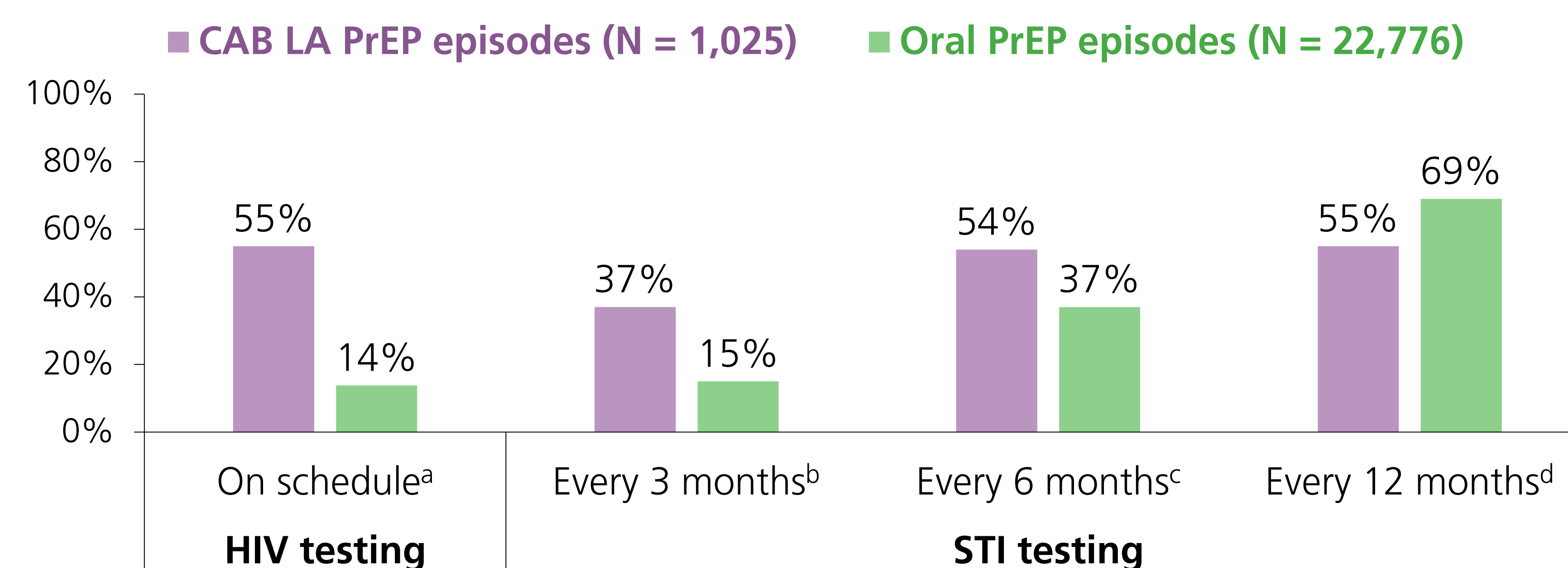


Figure 3. Timing of HIV and STI testing during CAB LA or oral PrEP use



^a HIV testing recommended every 3 months (76-104 days) for oral PrEP or within ± 14 days of each injection for CAB LA PrEP

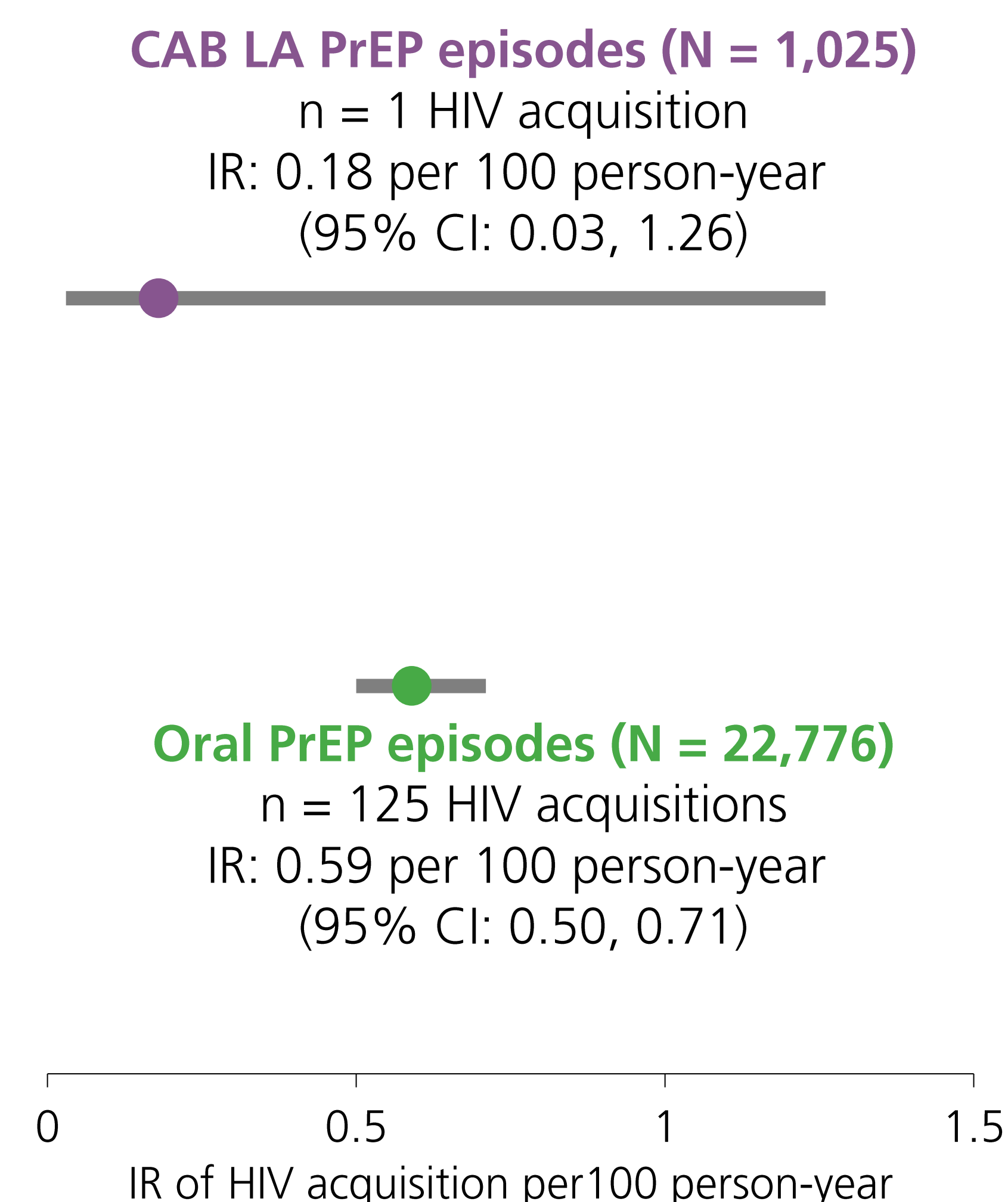
^b STI testing within ± 14 days of PrEP episode start and following tests are 76-104 days apart (gonorrhea, chlamydia, and syphilis testing recommended every 3 months for men who have sex with men and transgender women who have sex with men)

^c STI testing within ± 14 days of PrEP episode start and following tests are 168-196 days apart (gonorrhea and syphilis testing recommended every 6 months for heterosexual women and men)

^d STI testing within ± 14 days of PrEP episode start and following tests are 351-379 days apart (chlamydia testing recommended every 12 months for heterosexual women and men)

Abbreviations: Ab, antibody; Ag, antigen; CAB LA, cabotegravir long-acting; CI, confidence intervals; EHR, electronic health record; IQR, interquartile range; IR, incidence rate; N, number; PrEP, pre-exposure prophylaxis; STI, sexually transmitted infection

Figure 4. 12-month rates of HIV acquisition during CAB LA or oral PrEP use



Discussion

- HIV testing occurred twice as frequently on CAB LA PrEP than on oral PrEP (**Fig 1**)
- STI testing occurred 1.5 times more frequently on CAB LA PrEP than on oral PrEP (**Fig 2**)
- Both HIV and STI testing were more likely to occur at the predefined intervals during CAB LA PrEP than oral PrEP episodes (**Fig 3**)
 - The difference was most pronounced for HIV testing (55% vs. 14%) and STI testing every 3 months (37% vs. 15%)
- The 12-month HIV incidence rate was numerically lower on CAB LA PrEP, although confidence intervals overlapped due to the small number of events in the CAB LA group (n = 1) (**Fig 4**)
- Strengths
 - Large sample size
 - Validation of all potential cases of HIV acquisition
- Limitations
 - Analysis restricted to the first 12 months of each PrEP episode
 - Missing HIV and STI tests performed outside of the OPERA network
 - Timing of STI tests not stratified by risk group (men who have sex with men, transgender women who have sex with men, heterosexual women and men)

Key Findings

- In this large, real-world US cohort of PrEP users, HIV testing was suboptimal, raising concerns for delayed HIV diagnosis and treatment
- Rates of HIV and STI testing were significantly higher during CAB LA PrEP than oral PrEP use, suggesting that increased clinical contact from regular injection visits may encourage more frequent testing among PrEP users

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