

REAL-WORLD ADHERENCE PATTERNS AND CHARACTERISTICS OF PATIENTS INITIATING INJECTABLE CABOTEGRAVIR FOR PRE-EXPOSURE PROPHYLAXIS (PrEP) OR HIV TREATMENT

AUTHORS: YVONNE VITERI, PHARMD¹; DUY DO, PHD² STEFANIE PITTS, PHARMD¹; ANGELA INNEH, MPH, MBA²; GAIL BRIDGES, PHARMD¹

¹ACCREDITO SPECIALTY PHARMACY, MEMPHIS, TENNESSEE ²EVERNORTH RESEARCH INSTITUTE, ST. LOUIS, MISSOURI

Accredo Specialty Pharmacy

EVERNORTH
HEALTH SERVICES

BACKGROUND

- + Effective viral control using daily oral antiretroviral therapy (ART) for HIV requires ongoing compliance.
- + Injectable cabotegravir/rilpivirine offers less frequent administration with comparable efficacy to oral ART. Likewise, injectable cabotegravir for pre-exposure prophylaxis (PrEP) requires less frequent dosing compared to oral PrEP, which may impact compliance.
- + As such, understanding compliance patterns is crucial for optimizing real-world effectiveness.

OBJECTIVE

- + Determine compliance patterns and patient characteristics associated with compliance among patients using cabotegravir products for HIV treatment and PrEP.

METHODS

- + Data came from the Komodo Healthcare Map which contains insured patient medical and pharmacy claims.
- + Eligible patients were treatment-naïve with an initial fill January 2021 through December 2022 for injectable cabotegravir/rilpivirine (HIV treatment) or injectable cabotegravir (PrEP)
- + Compliance was defined as initiation and completion of initial and follow-up doses as prescribed.

DEFINITIONS

Injectable PrEP (cabotegravir)

- + Initiation: two injections, one month apart
- + Maintenance: Every two months

Injectable HIV Treatment (cabotegravir/rilpivirine)

- + Initiation: two injections, one month apart
- + Maintenance: Monthly or every two weeks based on regimen

Compliance Categories

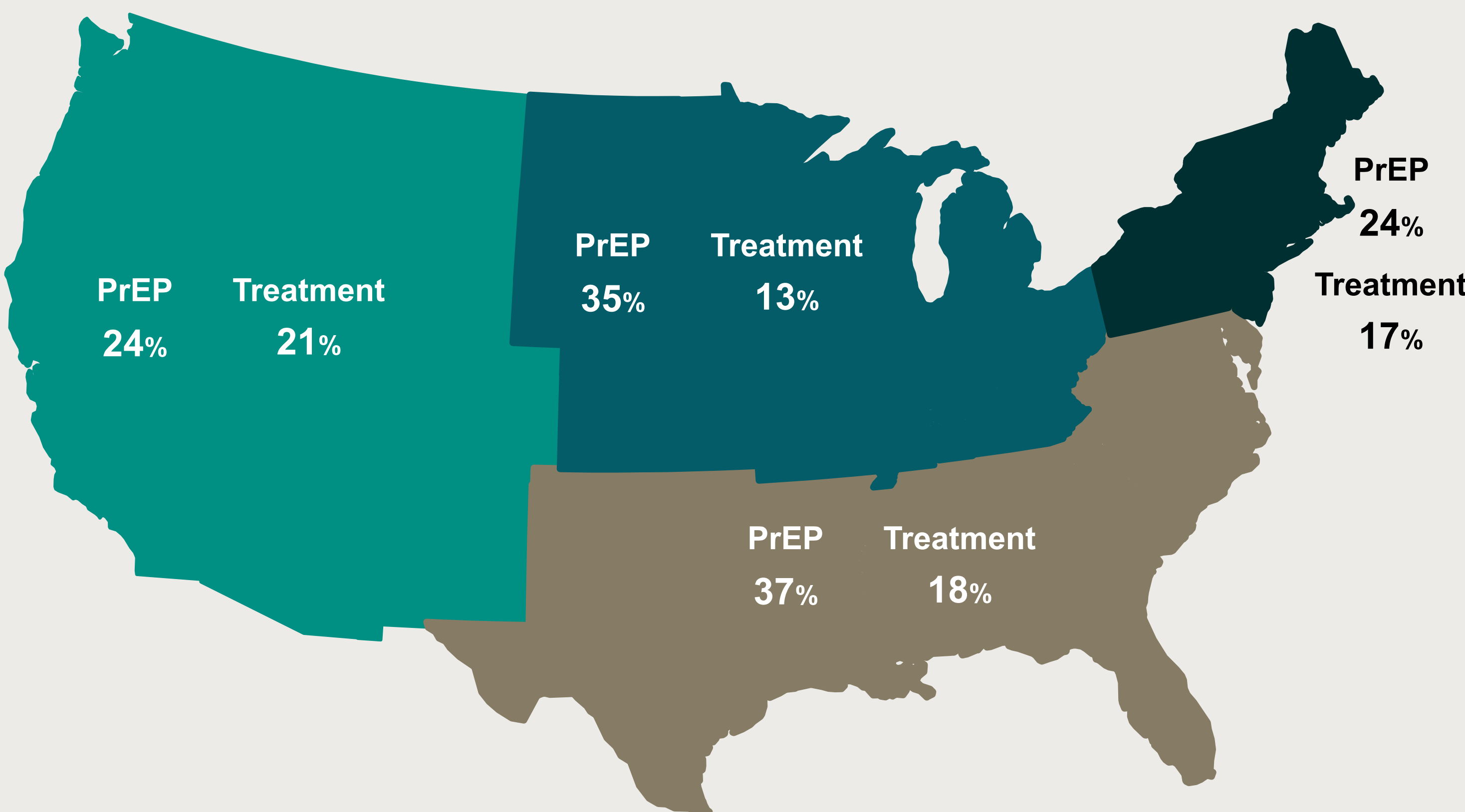
- + Compliant: Completed initiation and all maintenance doses (+/- 7-day window)
- + Non-compliant: Missed one or more doses or did not complete initiation

ANALYSIS

- + Demographic and clinical variables measured: age, sex, race/ethnicity, geographic region, Charlson comorbidity index, insurance type, and social determinant of health index.
- + Baseline differences between PrEP and HIV treatment cohorts were compared by Pearson's Chi-square or Wilcoxon rank sum.
- + Logistic regression assessed the likelihood of compliance for each cohort by demographic and clinical variable. Results are presented as odds ratios (OR) with corresponding 95% confidence intervals (CI). Statistical significance was set at $p < 0.01$.

RESULTS

Figure 1: Non-compliance percentage: Regional differences in PrEP and HIV treatment patients using injectable cabotegravir.



- + 2,001 patients utilizing long-acting cabotegravir identified, 916 PrEP and 1,085 HIV treatment

- + Within the PrEP cohort, individuals residing in the South (OR=0.46, 95% CI: 0.29-0.75, $p=0.002$) and Midwest (OR=0.55, 95% CI: 0.34-0.91, $p=0.018$) regions had significantly lower odds (54% and 45%, respectively) of compliance compared to the Northeast.

- + Non-compliance was significantly more prevalent among PrEP vs HIV treatment patients (29% vs 17%, $p < 0.001$).

- + No other statistically significant associations with treatment compliance identified for age, race, sex, SDoH, insurance type, or comorbidities in either the HIV treatment or PrEP cohort.

Figure 2: Therapy compliance among patients using injectable cabotegravir for PrEP and HIV treatment, 2021-2022

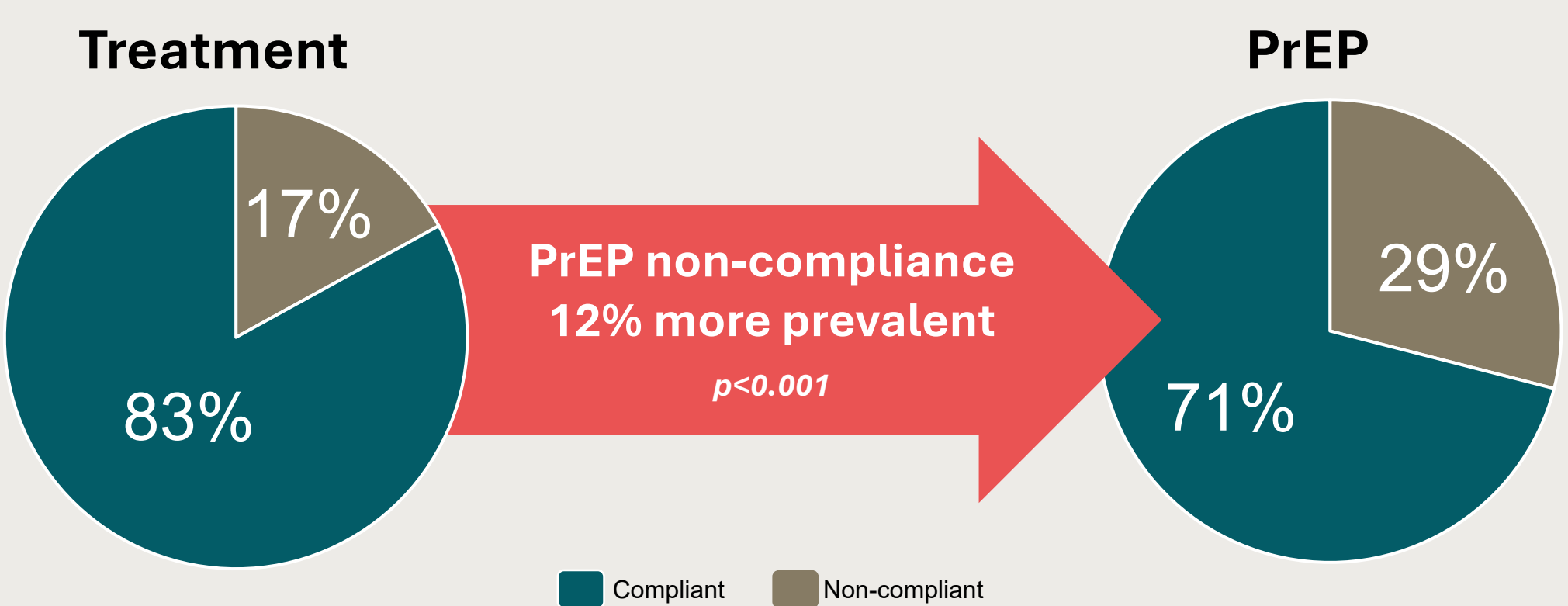
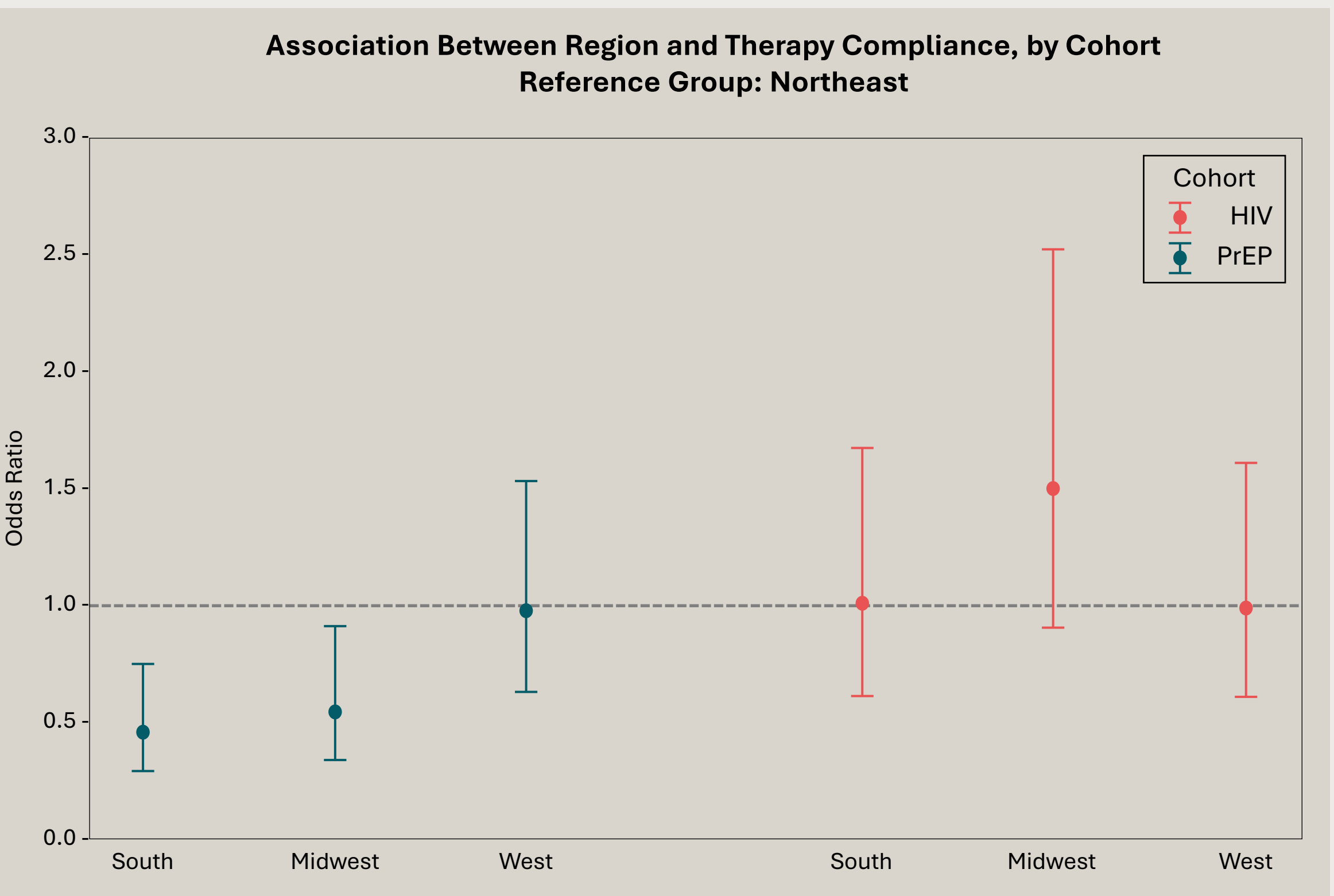


Figure 3: Association between geographic location and therapy compliance among patients using injectable cabotegravir for PrEP and HIV Treatment, 2021-2022



CONCLUSIONS

- 29% of injectable PrEP users have sub-optimal compliance
- 17% of injectable HIV treatment users have sub-optimal compliance
- 12% Increased prevalence of PrEP non-compliance vs HIV treatment non-compliance

Regional compliance disparities with long-acting injectable PrEP are evident

with patients in the Midwest and South exhibiting higher rates of non-compliance (35–37%) compared to other regions (24%)

KEY FINDINGS

- + The convenience of long-acting injectable PrEP does not guarantee consistent use as compliance challenges persist among patients using PrEP.
- + Targeted support and education to improve compliance to ART for both PrEP and HIV treatment is essential.
- + Regional disparities among PrEP users highlight the need for location specific strategies.
- + Successful outcomes from long-acting injectable ART require educational support tailored to diverse patient needs.

References:
1. Nachega JB, Scarso KK, Gandhi M, et al. Long-acting antiretrovirals and HIV treatment adherence. *Lancet HIV*. 2023 May;10(5):e332-e342.
2. Wang W, Zhao S, Wu Y, et al. Safety and Efficacy of Long-Acting Injectable Agents for HIV-1: Systematic Review and Meta-Analysis. *JAMA Public Health Surveill*. 2023 Jul 27;9:e46767.
3. Thoenigle P, Cheong E, Cavassini M, et al. Long-acting antiretrovirals: a new era for the management and prevention of HIV infection. *The Journal of Antimicrobial Chemotherapy*. 2022 Feb;77(2):290-302.