

### 103. Persistence on F/TDF for HIV Pre-exposure Prophylaxis: Insights from Real-world Evidence

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**Session:** O-20. HIV PrEP Prevention: Improving Uptake and Persistence

**Background:** Daily F/TDF is highly effective for HIV pre-exposure prophylaxis (PrEP). Prior studies have found that women and people of younger age have lower adherence and lower persistence on PrEP, yet real-world evidence describing persistence associated with other clinical characteristics and the patterns of persistence is limited.

**Methods:** We identified 313,526 HIV-1 negative individuals in the United States who initiated F/TDF for PrEP between January 1, 2012 and December 31, 2019 from a de-identified prescription claims database. PrEP users were defined as non-persistent if a gap in prescription fills >30 days was detected. We used survival analyses to estimate the persistence rate by year of PrEP initiation, and Cox regressions adjusting for multiple demographic and clinical characteristics to determine hazard ratios and corresponding 95% confidence interval of non-persistence for PrEP.

**Results:** Among the 313,526 PrEP users with a median age at PrEP initiation of 35 years of age (interquartile range, IQR, 26–43), 88% were men (median days of persistence = 118, IQR 30–316 days) and 12% were women (median 30 days, IQR 30–92 days). PrEP persistence at 30, 60 and 90 days increased over time, reaching the highest levels in 2019 (Figure). In a multivariate analysis, younger age, female sex, and non-white race were associated with higher risk of non-persistence (Table). We also observed associations of a 5% lower rate of non-persistence if PrEP was prescribed by internal medicine or infectious disease physicians than by family medicine physicians, and a 13% lower rate of non-persistence associated prescriptions ordered from mail-order pharmacies than prescriptions of retail pharmacies. Finally, history of bone fracture or renal dysfunction prior to PrEP initiation were associated with a 13% and 9% higher rate of non-persistence, respectively.

Figure. F/TDF for PrEP persistence rates over time.

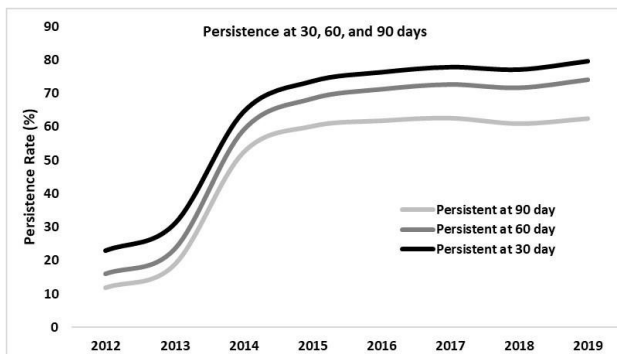


Table. Hazard ratios and corresponding 95% confidence intervals of non-persistence on F/TDF PrEP since initiation, 2012–2019

	N (%)	HR (95%)
<b>All</b>	<b>313526</b>	
<b>Age at PrEP initiation</b>		
12-17	2434 0.8%	1.82 (1.74-1.90)
18-25	64898 20.7%	1.35 (1.34-1.36)
26-39	175364 55.9%	Reference
40+	70830 22.6%	0.88 (0.87-0.89)
<b>Gender</b>		
Male	275814 88.0%	Reference
Female	37700 12.0%	2.04 (2.01-2.07)
<b>Race/ethnicity</b>		
White	86355 27.5%	Reference
Black	17548 5.6%	1.11 (1.09-1.13)
Hispanic	19523 6.2%	1.11 (1.09-1.13)
Asian/Other	5281 1.7%	1.06 (1.02-1.09)
<b>Region</b>		
Northwest	80366 25.6%	Reference
Midwest	46991 15.0%	0.97 (0.96-0.98)
South	99204 31.6%	1.03 (1.02-1.04)
West	86892 27.7%	0.99 (0.97-1.00)
<b>Prescriber specialty</b>		
Family Medicine	75646 24.1%	Reference
Internal/Infectious Medicine	96912 30.9%	0.95 (0.94-0.96)
Nurse Practitioner/Physician Assistant	113790 36.3%	1.05 (1.04-1.06)
<b>Pharmacy</b>		
Retail	262758 83.8%	Reference
Mail Order	27467 8.8%	0.87 (0.86-0.88)
<b>Payer Type</b>		
Commercial	276826 88.3%	Reference
Cash/Medicare/Medicaid	36700 11.7%	1.30 (1.28-1.32)
<b>History of STD</b>	14005 4.5%	0.99 (0.97-1.01)
<b>History of Bone Fracture</b>	266033 84.9%	1.13 (1.11-1.14)
<b>History of Renal Dysfunction</b>	3664 1.2%	1.09 (1.05-1.13)

\* Additionally adjusted for year of PrEP initiation and multiple comorbidities prior to the initiation of PrEP.

**Conclusion:** This study demonstrates that persistence on F/TDF for PrEP has improved over time, and identifies several characteristics associated with non-persistence, including age, sex, race/ethnicity, prescriber specialty, type of pharmacy, and history of bone fracture or renal dysfunction. These findings can help to inform interventions aimed at improving PrEP persistence in people at risk of HIV.

**Disclosures:** Li Tao, MD, PhD, Gilead Sciences Inc (Employee) Valentina Shvachko, n/a, Gilead Sciences Inc (Employee) Robertino Mera, MD, PhD, Gilead Sciences Inc (Employee) Moupali Das, MD, MPH, Gilead Sciences Inc (Employee) Christoph Carter, MD, PhD, Gilead Sciences Inc (Employee) David Magnuson, PharmD, Gilead Sciences Inc (Employee)

### 104. Evaluation of a Prep Referral System: From Sexual Health Center to Federally Qualified Health Center Prep Clinic

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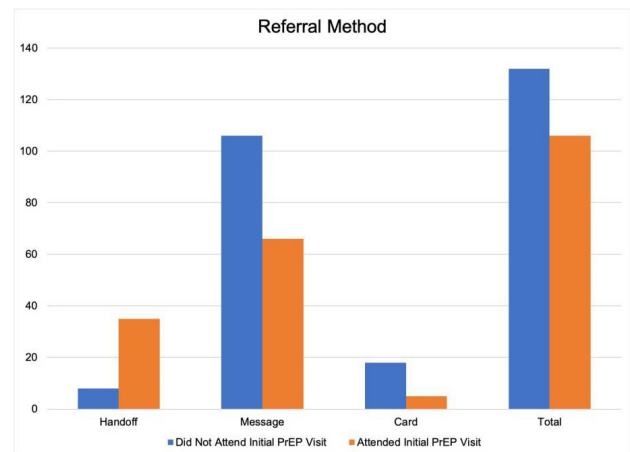
**Session:** O-20. HIV PrEP Prevention: Improving Uptake and Persistence

**Background:** In the United States, less than one-quarter of those who are eligible for pre-exposure prophylaxis (PrEP) have been prescribed the medication. Innovative strategies of PrEP delivery are needed to facilitate access and overcome barriers to care. The objective of this study was to evaluate the referral process from a sexual health center (SHC) to a co-located PrEP clinic as an alternative model of PrEP care.

**Methods:** An initial report was generated from the electronic health record (EHR) to determine the number of patients seen at the SHC in 2019. Charts were then manually reviewed to determine whether a PrEP clinic referral was made. For those referred, we determined the method of the referral: PrEP clinic navigator met the patient at the SHC (handoff), the navigator was messaged in the EHR to then schedule the appointment (EHR message), or the patient was provided a card with the navigator's contact information (card). We also determined whether patients had subsequent visits at the PrEP clinic or SHC.

**Results:** From January to December 2019, there were 3570 unique patients seen at the SHC, and 240 (6.7%) were referred to the PrEP clinic. Of 240 referred patients, median age was 29 years; 95 (40%) were non-Hispanic Black and 25 (11%) were Latinx. The majority (n=198, 83%) were male, 32 (13%) were cisfemale, and 9 (4%) were transfemale. An STI was diagnosed on the day of the clinic visit for 116 (49%) patients. Of those who were MSM, 75 (51%) had been diagnosed with an STI in the previous 6 months. In total, 106 referred patients attended an initial PrEP visit and the proportion attending the visit by method of referral was 81%, 38%, and 22% for handoff, EHR message, and card, respectively (p<.0001). Of the 108 patients who attended an initial PrEP visit, 66 (61%) had a subsequent PrEP visit. Of those who did not attend a PrEP visit, 36 (27%) had a subsequent visit at the SHC.

Figure 1. Method of Referral from SHC to PrEP Clinic



**Conclusion:** Despite co-location of these two clinics, there are significant drop-offs along the PrEP care continuum for this referral system. Navigator-facilitated handoff was the most effective method of referral from SHC to PrEP Clinic, but further efforts are needed to understand barriers to referral. Implementation of rapid PrEP provided at the SHC may be one possible solution to engaging additional patients in PrEP services.

**Disclosures:** Meredith E. Clement, MD, FH360 (Consultant)Gilead (Research Grant or Support)Janssen (Scientific Research Study Investigator)

### 105. Null Effect of Financial Incentives or Social Media Support on Prep Adherence in a Randomized Controlled Trial of Young Men Who Have Sex with Men of Colour

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