

### 1276. Changes in Primary Care Pre-exposure Prophylaxis prescribing in a Large Healthcare System after the Implementation of an HIV Screening Alert and Educational Intervention

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**Background.** The number of providers that prescribe pre-exposure prophylaxis (PrEP) for HIV remains low. Primary care providers (PCPs) are less knowledgeable than HIV providers (HIVPs) with regards to PrEP: fewer PCPs had heard of PrEP (76% vs. 98%), knew about prescribing PrEP (28% vs. 76%), or ever had prescribed it (17% vs. 64%). PCPs limited knowledge about PrEP and questions about insurance coverage were identified as barriers to prescribing PrEP. Additional information on changes in prescribing PrEP in primary care within a large healthcare system is limited.

**Methods.** 12 practices were part of a systemwide implementation of an HIV screening Electronic Medical Record (EMR) alert in October 2017 for patients ages 18–64. The 12 primary care practices were also included as part of an educational intervention regarding HIV prevention presented in the first quarter of 2018. As part of the educational intervention, information on prescribing PrEP was included along with resources for linkage-to-care and insurance coverage. The number of PrEP prescriptions were summarized for all 12 practices one year prior to the EMR alert and one-year post-EMR alert. Paired T-test statistics were used to test the number of patients prescribed PrEP by each practice pre- and post-EMR alert. The same analysis was conducted one-year pre- and post- the educational intervention.

**Results.** Across the 12 practices, 62 PrEP prescriptions were written one year prior to the implementation of the EMR alert (M=5.2, SD=7.3) and 88 post-EMR alert (M=7.3, SD=6.4), a 42% increase ( $P = 0.02$ ). There were no differences in PrEP prescriptions one-year pre- and post- the educational intervention ( $n = 69$ ).

**Conclusion.** While the number of PrEP prescriptions written showed significant increase after the implementation of the EMR alert, the overall number of prescriptions in primary care are still relatively low. While there has been national attention to increase PrEP prescribing through initiatives with local health departments, efforts to increase PrEP uptake require additional interventions above and beyond education interventions to increase the knowledge, comfort, and skills of providers to prescribe PrEP.

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### 1277. Retention Among Adolescents with Mental Health Diagnoses on Pre-Exposure Prophylaxis (RAMP) Study

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**Background.** The CDC reported in 2017 that 21% of new HIV diagnoses were composed of persons 13–24 years old. New York State (NYS) is addressing this with the Ending the Epidemic initiative, started in 2014, which emphasized pre-exposure prophylaxis (PrEP) for persons at risk of acquiring HIV. Though PrEP can effectively prevent HIV transmission, NYS minors were only granted capacity to accept PrEP in 2017. The Adolescent Medicine Trials Network found clinicians had varying perceptions on whether mental health diagnoses (MHD) were a barrier to adolescent PrEP utilization. This study aims to test the hypothesis that patients with MHD do not differ in PrEP retention length when compared with adolescents without MHD.

**Methods.** This is a retrospective single-center study analyzing self-reported visit data for adolescent enrolled on PrEP ( $n = 27$ ) in the Capital District, NY. MHD were confirmed with clinician notes and retention to PrEP was defined as attending appointments. Between-group differences were compared using Fisher's Exact Test (FET). Kaplan–Meier curves were compared using the log-rank test.

**Results.** Of the 27 adolescents enrolled on PrEP between Sep 2015–March 2019, most self-identified as males (93%), MSM (85%), white (74%), and 13 (48%) had a MH diagnosis. Anxiety was the most common MHD (69%), followed by depression (38%). The mean age was 20.3 years (16–24). The average PrEP retention for patients with and without MHD were  $262 \pm 136$  and  $292 \pm 138$  days, respectively ( $P = 0.575$ ). For patients with MHD, follow-up at 1-month, 3-months and 1-year was 10 (77%), 8 (62%), and 5 (39%), respectively. For patients without MHD, follow-up at 1-month, 3-months, and 1-year was 11 (79%), 10 (71%), 5 (36%), respectively. Follow-up between adolescents with and without MHD was compared at 1-month ( $P = 0.086$ , FET), 3-months ( $P = 0.695$ , FET), and 1-year ( $P = 1.0$ , FET). Adolescents' retention on PrEP was depicted on Kaplan–Meier curves (Figure 1). Log-rank test indicated that PrEP retention is not significantly associated with MHD ( $\chi^2(1) = 0.1$ ,  $P = 0.727$ ).

**Conclusion.** Adolescents with and without MHD did not significantly differ in PrEP retention outcomes. The RAMP study elucidates a potentially incorrect provider bias regarding PrEP retention and MHD. Future investigation should be done prospectively with larger sample size.

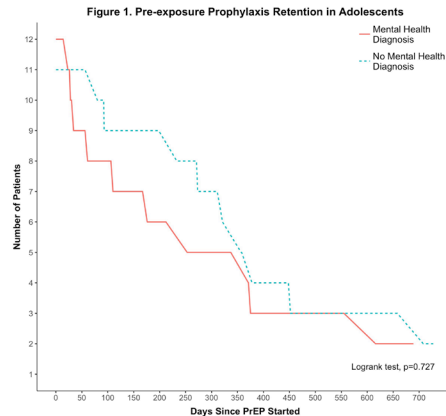


Figure 1. Kaplan-Meier curve analysis showing the pre-exposure prophylaxis (PrEP) retention in adolescents with (bold red line) and without (dotted blue line) a mental health diagnosis. There is no significant difference on PrEP retention between the two groups of adolescents.

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### 1278. Assessing Statewide HIV Pre-exposure Prophylaxis Implementation Using an All Payer Claims Database

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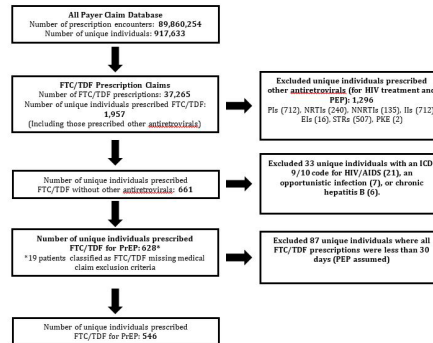
**Background.** Pre-exposure prophylaxis (PrEP) in the form of daily tenofovir disoproxil fumarate (TDF/FTC) is a potentially transformative tool to prevent HIV infection. However, PrEP scale-up in the United States has been slow and difficult to evaluate comprehensively. All payer claims databases (APCDs) are large datasets that contain information on medical and pharmaceutical claims from most public and private payers in each state, and provide an unusual opportunity to evaluate statewide PrEP implementation efforts.

**Methods.** We used 2012–2017 data from Rhode Island's APCD and developed an algorithm to identify individuals prescribed TDF/FTC for PrEP. We compared APCD PrEP data to electronic medical record (EMR) data at the largest dedicated PrEP program in the state, and to other comprehensive pharmaceutical claims data (AIDSvu.org). We calculated the PrEP-to-Need ratio (PnR) based on annual HIV incidence, and used multivariable logistic regression to predict ZIP code-level PrEP use, and specialty of prescribing provider (primary care vs. infectious disease).

**Results.** The Rhode Island APCD included insurance claims for 917,633 individuals (87% of the Rhode Island population). PrEP use increased substantially in Rhode Island over the 5-year period, from 13 to 331 prescriptions between 2012 and 2017, with 546 total users during this time period. Users were predominantly male (89%) and privately insured (69.1%), and concentrated in Providence County (71.5%). The PnR ratio increased from 0.2 to 4.0 from 2012–2017. Compared with AIDSvu and EMR Data, the APCD underestimated the number of PrEP users in Rhode Island, but improved over time in documenting users. Infectious diseases specialists had 8.4 times the odds (95% CI: 5.4 to 12.9) of being a PrEP prescriber compared with primary care providers. A total of 2.6% of infectious disease specialists were PrEP prescribers compared with 0.33% of PCPs. The proportion of Black or Hispanic individuals in a ZIP-code was not a significant predictor of PrEP use.

**Conclusion.** APCDs offer an innovative approach to evaluate statewide PrEP implementation comprehensively. Engaging PCPs in PrEP implementation is critical to improve overall uptake among populations most at-risk.

Figure 1. The All Payer Claims Database (APCD) algorithm for identifying emtricitabine and tenofovir disoproxil fumarate (FTC/TDF) as pre-exposure prophylaxis (PrEP), 2012–2017. PI=protease inhibitor; NRTI=Nucleoside reverse transcriptase inhibitor; NNRTI=Non-Nucleoside Reverse Transcriptase Inhibitor; I=Integrase inhibitor; E=Etiology inhibitor; PGE=Pharmacokinetic Enhancer; Opportunistic infections included those as defined by the Centers for Disease Control and Prevention except for those with candidiasis and Herpes Zoster infection given this can commonly occur in HIV negative individuals.



**Disclosures.** All authors: No reported disclosures.