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#### BARRIERS TO ADHERENCE TO HIV TREATMENT AMONG ADOLESCENTS AND YOUTH ENROLLED IN ARV IN TWO DISTRICT HOSPITALS IN RURAL RWANDA

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Background Rwanda provides free HIV treatment to all HIV positive person. Adolescents and youth have poorer treatment adherence and experience higher treatment failure than adults. This study aimed at exploring the barriers to adherence among adolescents and youth in two district hospitals in rural Rwanda.

Methods Adolescents and youth within the age of 10 to 24 years who have been on HIV treatment for at least one year in the two hospitals and their appointment adherence were identified through electronic medical records. Questionnaires were completed by consented participants or their parents and were used to measure treatment adherence in the previous 30 days and in the previous 3 days. In-depth interviews were also conducted to explore the factors associated with poor adherence and outcomes.

Results Among the 139 adolescents enrolled for treatment, 58% had good appointment keeping. Out of the 72 question-naires completed, 87% reported adhering to at least 95% of treatment in the previous 30 days and 47% reported poor adherence in the previous 3 days. Reported factors causing poor adherence included poverty, stigma, and lack of parents. Conclusion The level of adherence to HIV treatment was low among adolescents and youth in rural Rwanda. Creation of projects that can improve social economic status to Adolescent who are on HIV treatment as well as provision of family care to orphanage HIV adolescent patients would improve their treatment adherence.

Disclosure No significant relationships.

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### GAY, BISEXUAL AND OTHER MEN WHO HAVE SEX WITH MEN PREFER SEXUAL HEALTH CLINIC NURSES OVER FAMILY PHYSICIANS FOR PREP DELIVERY

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Background More providers are needed to deliver PrEP at scale. We examined intentions to seek PrEP from family physicians (FPs) and sexual health clinic nurses (RNs) within an implementation science study on decentralizing PrEP delivery to gay, bisexual and other men who have sex with men (gbMSM).

Methods Strategy A was a knowledge dissemination intervention in which community organizations distributed info-cards

to gbMSM considering PrEP. Men used the cards to view an online module and meet with their FPs, who could use the card to complete an accredited e-module about PrEP. Strategy B was an implementation intervention in which gbMSM could instead access PrEP from sexual health RNs. Participants completed an optional survey at baseline and 6 months. We used descriptive statistics to characterize the sample and logistic regression to identify characteristics associated with intentions to seek PrEP from FPs vs RNs.

Results From 3013 cards distributed, 339 men accessed the module; 179 completed the baseline survey and are included in this analysis. Median (IQR) age was 31 (26,40) years, 97.7% were cisgender males and 46.4% had a prior bacterial STI. Most (n=119, 66.5%) had a FP, of which only 59.5% were 'out' to them. Of 97 respondents with a FP and wanting to start PrEP, 35.1% vs 65.0% intended to use Strategy A vs B respectively (p=0.003). In univariable analyses, characteristics associated with intent to approach FPs included being 'out' to that doctor (OR=10.67, 95%CI=3.35, 33.96), very good/excellent physician skills in general communication (OR=3.42, 95%CI=1.38, 8.48) and participatory decision-making (OR=3.33, 95%CI=1.14, 9.79). In multivariable analysis, being 'out' was the only significant predictor (aOR=14.35, 95%CI=1.59, 129.83).

Conclusion Among gbMSM with a FP, sexual health clinic RNs were preferred over FPs for PrEP by most. Multiple strategies are needed to increase numbers of PrEP providers, including interventions to help gbMSM feel comfortable disclosing sexual orientation.

Disclosure No significant relationships.

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# INSURANCE COVERAGE, FINANCIAL STRAIN, AND ADHERENCE TO PRE-EXPOSURE PROPHYLAXIS AMONG GAY/BISEXUAL MEN IN THE UNITED STATES

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Background Pre-exposure prophylaxis (PrEP) is highly effective in preventing HIV infection, but many at-risk patients have difficulty adhering to the drug over time. Past studies suggest that financial factors, including health insurance coverage, high out-of-pocket expenses, and more general financial strain, may be key factors in PrEP care utilization particularly in the United States, where PrEP is not covered by all insurance plans. However, to date, few studies have explored whether these factors co-occur with disruptions in adherence that are long enough to reduce PrEP's effectiveness.

Methods We recruited 40 PrEP-experienced patients from a sexual health clinic in the northeastern US and instructed them to dispense their PrEP from an internet-connected pill bottle over a 6-month study period. During the study period, participants were also asked to complete monthly surveys assessing insurance coverage, type, and financial strain.

Results GEE models showed that the odds of having a lapse in PrEP adherence of 3+ days were also nearly three times higher in months when participants had incomplete insurance coverage (OR=2.94, p<0.001) and the rate of lapse days was five times higher (IRR=5.00, p<0.001). Participants also had significantly higher percent adherent days ( $\beta=0.23$ , p=0.003) and lapse days occurred nearly four times less often

(IRR=0.27, p<0.001) in months they were insured with Medicaid, versus individual- or employer-provided plans. Finally, the odds of experiencing a significant lapse in adherence was about two times higher (OR=1.77, p=0.049) and lapse days occurred significantly more frequently (IRR=1.38, p<0.001) in high financial strain months.

Conclusion Our results suggest that insurance coverage plays a vital role in ensuring patients maintain protective levels of PrEP over time. Although having any coverage is critical, our findings also show that those with private insurance may have more difficulty adhering to PrEP at protective levels, possibly due to restrictions these providers place on obtaining PrEP. Disclosure No significant relationships.

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## ASSESSMENT OF POTENTIAL PRE-EXPOSURE PROPHYLAXIS (PREP) COMPLIANCE IN INTRAVENOUS DRUG USERS ACCESSING OUTREACH SERVICES

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Background Internationally, approximately one out of every ten new HIV infections has previously been attributed to intravenous drug use (IVDU). PrEP compliance among people with intravenous drug use (PWID) may decrease new HIV infection. This study assessed perceptions of PrEP, risk for contracting HIV, and potential compliance with PrEP among PWID.

Methods Clients accessing IVDU mobile outreach van services, aged ≥18 years, completed anonymous self-report questionnaires about "Beliefs about Medicines" and "Perceived Risk of HIV" via iPad following informed consent.

Results Socio-demographics N=100, aged 18–63 years (50%) <37 years), non-Hispanic White (56.5%), Hispanic (38.4%); male (59.6%), sex with men (28%), sex with women (51%), sex with both (16%), length of IVDU (1-9 years). Most separated/divorced (31.4%) or never married (47.5%); high school education or less (54.5%); currently (64%) or previously (75.8%) homeless; ever prison (54.5%) or arrested (89%); HIV testing (98%); currently HIV+ (2%). Risk Behavior: Money/drugs for sex (50%); uses condoms (30%), alcohol (93%), heroin (89%), marijuana (95%) prescriptions to get high (70%), LSD (69%), ecstasy (63%) cocaine (89%) meth (81%), crack (59%). Co-morbidities: Schizophrenia (7%), Anxiety (59%), Depression (60%), Hepatitis (36%), Diabetes (6%) and HTN (25%). Medication: Getting prescriptions easy (65.7%); visiting doctor monthly/blood drawn no big deal (80.8%); don't like PrEP for long time (55.6%); concerned forget medications (53.6%), or medication side-effects (42.7%); think about HIV often (74.8%); HIV risk moderate/ great (39.3%). Most medications addictive (43.5%); benefits out weight risks (57.6%); safe (47.5%); work better when (60.6%); 46% requested PrEP taken regularly information.

Conclusions PWID perceived high-risk for HIV. High levels of co-morbidities, substance use, limited HIV protective behavior and homelessness existed. Positive attitudes toward and interest in medication use for disease prevention and concerns regarding long-term medication or forgetting medications. PrEP adherence among PWID presents clinical challenges. Addressing risks, co-morbidities and inconsistent use of PrEP may optimize adherence.

Disclosure No significant relationships.

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### IMPLEMENTING PRE-EXPOSURE PROPHYLAXIS FOR HIV: EXPERIENCES IN A HEALTH DEPARTMENT BASED STI CLINIC

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Background Despite the availability of PrEP, the uptake is sub-optimal. Guilford County in North Carolina has seen a steady increase in the rates of HIV amongst high-risk groups, especially Black men-who-have-sex-with men (MSM). Many people receive preventative services through health departments and they are expected to play an integral role in PrEP services. The Guilford County Health Department (GCHD) PrEP clinic was established to provide services to their patients who were at high-risk of acquiring HIV. The aim of this study is to describe a health department's experience in implementing PrEP services and to identify risk related trends for patients screen/enrolled in an effort to optimize services.

Methods We conducted a retrospective review of six months of data from the GCHD PrEP clinic. Fisher's Exact Tests were used to test for differences between groups for outcomes of interest.

Results Between March 2018 and September 2018, 65 patients were referred to the PrEP clinic for initiation of PrEP. 94% of all patients were male. Forty-eight patients identified as MSM of which 63% were Black. Of all patients screened at their referral visit for STIs, over half (55%) tested positive for at least one bacterial STI, with pharyngeal gonorrhea being the most common (p=0.022). Forty-six patients were prescribed PrEP, 31 were insured. 3 HIV seroconversions occurred in the interval between referral and initial PrEP visit.

Conclusion Majority of new HIV cases in Guilford County occur in Black MSM, and most of the patients screened for PrEP services at the clinic were Black MSM indicating that the patients accessing PrEP services are those that are most greatly impacted by the HIV epidemic in Guilford County. The high prevalence of STIs among patients initiating PrEP emphasizes the opportunity and significance of simultaneous STD screening and PrEP services. Financial resources have helped offer PrEP to high-risk groups.

Disclosure No significant relationships.