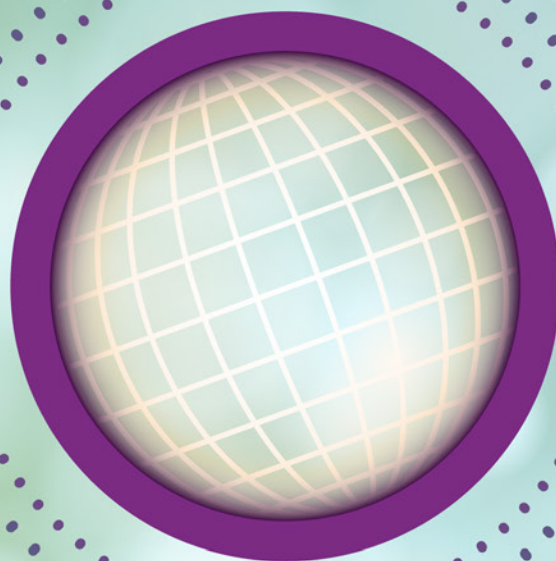


Oral Abstracts

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Factors Associated with ART Adherence for Prevention and Treatment Among Sexual Minority Men: Integrating Traditional and Machine Learning Approaches

Audrey Harkness (presenting)¹, McKenzi Payne¹, Steven Safren¹, Tiffany Glynn², Marc Puccinelli¹, Wayne Defreitas¹, Raymond Balise¹

¹ University of Miami, Miami, FL, USA

² Massachusetts General Hospital, Boston, MA, USA

Background: To achieve Ending the HIV Epidemic goals, key populations, including sexual minority men, need to adhere to evidence-based biomedical interventions including antiretroviral therapy as treatment (ART) or preexposure prophylaxis (PrEP). The present study integrates traditional and machine learning methods to evaluate whether a common set of factors can predict adherence to ART for both treatment and prevention.

Method: Participants included 365 sexual minority men taking antiretroviral therapy as treatment or PrEP in South Florida. Survey respondents provided information on adherence to treatment or PrEP and demographic, psychosocial, and behavioral factors potentially associated with adherence. Data were analyzed using machine learning algorithms that are simple to interpret such as Classification and Regression Tree and LASSO regression variable selection, techniques that require specialized extra steps to look inside “black box models” like Multivariate Adaptive Regression Spline (MARS) and Random Forest models, and traditional stepwise logistic regression to identify factors associated with adherence.

Results: Taking ART for HIV treatment or PrEP was not an important predictor for adherence in any of the models. Rather, the models suggested that a common set of predictors can be used to predict adherence to ART for both treatment and PrEP. Race/ethnicity was identified by all models as an important predictor of adherence. Additionally, depressive symptoms, anxiety symptoms, and substance use were identified as an important adherence predictor by at least three (of five) models. Determinants less commonly identified as important for adherence were alcohol use (CART and LASSO only), sexual orientation (CART only), self-esteem, and condomless sex (Random Forest and LASSO only).

Conclusion: Our finding that taking ART for treatment vs. PrEP is not an important predictor of adherence suggests the utility of adapting treatment adherence interventions for PrEP adherence as well as developing “status neutral” adherence interventions for sexual minority men. Our findings further contribute to the adherence literature by integrating traditional and machine learning approaches.

1018

Adolescent and Young Men and Women’s Divergent Preferences for Integrated PrEP Delivery Services: A Discrete Choice Experiment in Cape Town, South Africa

Elzette Rousseau (presenting)¹

¹ Desmond Tutu HIV Foundation, Cape Town, South Africa

Background: Integrated sexual and reproductive health services have been promoted in the scale-up of PrEP delivery to adolescent and young people (AYP) in sub-Saharan Africa and understanding drivers of choice may maximize effective PrEP use.

Method: A discrete choice experiment (DCE) was conducted in Cape Town, South Africa, in February 2021 with male and female AYP aged 15-29 years. Participants had to choose between two hypothetical PrEP delivery models composed of six attributes: PrEP modality, location, adherence support, contraception type (females only), partner STI notification, and waiting time. Fixed effects logit models estimated preferences among PrEP delivery alternatives, using a 95% level of significance.

Results: Overall, 343 AYP (196 female; 57%; median age=20yrs) enrolled. Most participants (86%) were PrEP-naïve, 67% indicated that they were ready to start PrEP. Overall, no significant preferences were found regarding PrEP modality, pick-up location, or waiting times. AYP indicated a preference for adherence support delivered via SMS (OR=1.33; 95%CI: 1.14–1.56), a health App (OR=1.25; 95%CI=1.08–1.46) or peer-group support (OR=1.34; 95%CI=1.17–1.55) compared to in-person counseling. Male AYP did not have significant preferences. Female AYP indicated preference for contraception delivered in combination with PrEP (OR=1.44; 95%CI: 1.18–1.76) and were less likely to choose models with partner STI testing if the results were delivered in-person (OR=0.83; 95%CI: 0.69–1.0) or by non-anonymised courier (OR=0.49; 95%CI:0.35–0.67).

Conclusion: Best-aligned PrEP delivery for AYP includes digital or peer-group adherence support. To ensure that PrEP delivery models influence positive demand, female AYP more than males may favour tailored, gender-responsive delivery options.



1031 Loneliness Among Black/ African-American Adults Living with HIV: Sociodemographic and Psychosocial Correlates and Implications for Adherence

Nipher Malika (presenting)¹, Laura Bogart¹, Matt Mutchler², Kathy Goggin, David Klein¹, Sean Lawrence², Glenn Wagner¹

¹ RAND Corporation, Santa Monica, CA, USA

² APLA Health & Wellness, Los Angeles, CA, USA

³ University of Missouri-Kansas City School of Medicine, Kansas City, MO, USA

Background: Loneliness, an emerging public health problem, is higher among people living with HIV (with reported rates of 30- to 60-percent) and is associated with negative health outcomes. Black/African Americans have a high burden of HIV, and little is known about the characteristics of loneliness among Black adults living with HIV. This study sought to understand the sociodemographic and psychosocial correlates of Black adults living with HIV who are lonely, and the implications of loneliness for their health outcomes.

Methods: A sample of 304 Black adults living with HIV (73.8% sexual minority men) in Los Angeles County, California completed survey items assessing sociodemographic and psychosocial characteristics, social determinants of health, health outcomes, and loneliness. Antiretroviral therapy (ART) adherence was assessed electronically with the Medication Event Monitoring System.

Results: Ninety-five percent of the sample reported loneliness symptoms. Bivariate linear regressions showed higher loneliness scores among those with higher levels of internalized HIV stigma, depression symptoms, unmet needs, and discrimination related to HIV-serostatus, race, and sexual orientation. In addition, participants who were married or living with a partner, had stable housing, and reported receiving more social support had lower levels of loneliness. In multivariate regression models controlling for stable housing, loneliness was found to be a significant independent predictor of worse general physical health [b(SE) = -0.37 (0.06), $P < 0.001$], worse general mental health [b(SE) = -0.72 (0.05), $P < 0.001$], and greater depression [b(SE) = 5.49 (0.41), $P < 0.001$]. Loneliness was marginally associated with lower ART adherence [b(SE) = -3.96 (2.26), $P = 0.08$].

Conclusion: Findings suggest that Black adults living with HIV, who experience multiple intersectional stigmas, require targeted interventions and resources.

1037 Prevalence and Risk Factors for Post-Acute Sequelae of COVID among Persons with HIV in Washington, DC

Shannon Barth (presenting)¹, Paige Kulie¹, Anne Monroe¹, Michael Horberg¹, Amanda Castel¹

¹ George Washington University, Washington, DC, USA

Background: Persons with HIV (PWH) may be at increased risk of post-acute sequelae of COVID (PASC) given the large number of co-morbidities, varying levels of immunosuppression, and chronic inflammation among PWH. Our objective was to characterize PASC prevalence, associated risk factors, and impact among PWH in Washington, DC.

Method: Data from a cross-sectional COVID survey were collected 2/28/22-12/2/22 from participants in the DC Cohort, a longitudinal HIV study. We examined associations between sociodemographics; HIV characteristics; comorbidities; COVID vaccination; acute COVID symptoms, severity, treatments, and hospitalizations by PASC status (self-endorsed from a symptom list experienced 28 days post- COVID). We conducted logistic regression analyses to assess factors associated with PASC. We examined most bothersome PASC symptoms, symptom improvement after vaccination, quality of life, and activities of daily living (ADL).

Results: Of 178 PWH with COVID, 44% self-reported PASC. The most common symptoms included fatigue (76%), brain fog (38%), depression (35%), anxiety (29%), and dyspnea (27%). PWH with PASC were a median of 53 years old, 68% Black, 93% virally suppressed (VS), and 97% vaccinated (at least 1 dose). PWH with PASC were more likely to have 1 or more comorbid condition including asthma and >3 symptoms at initial infection ($p < 0.05$). PASC status did not differ by VS and CD4 count, duration of HIV diagnosis, or acute COVID infection severity. Reporting >3 symptoms at initial COVID infection was associated with increased likelihood for PASC (aOR=2.83, 95%CI=1.32,6.10). A majority (77%) of PWH with PASC reported impact on daily life and were more likely to report limitations in ADLs ($p < 0.05$) (Figure). Post-PASC vaccination improved symptoms in 21%.

Conclusion: The prevalence of PASC among PWH was high with a significant impact on ADLs. PASC development did not differ by HIV-related measures or COVID vaccination status. Programs are needed to address the long-term impact of PASC on ADLs among PWH.



1041

Eligibility for PrEP Referral, Referral to PrEP Provider, and Assistance with Linkage to PrEP Provider among Persons Testing Negative for HIV Infection via CDC-Funded HIV Testing in Non-Healthcare Settings

Deesha Patel (presenting)¹, Weston Williams², Carolyn Wright¹

¹ CDC, Atlanta, GA, USA

² Public Health Analytic Consulting Services, Inc., Atlanta, GA, USA

Background: CDC funds health departments and community-based organizations to conduct HIV prevention services, which includes PrEP services for persons who test negative for HIV.

Method: Using 2019-2021 data submitted by CDC-funded recipients to the National HIV Prevention Program Monitoring and Evaluation system, we analyzed eligibility for PrEP referral, referral to PrEP provider, and assistance with linkage to PrEP provider by population groups in non-healthcare settings. We calculated adjusted prevalence ratios (aPRs) and 95% confidence intervals (CI) with men who have sex with men (MSM) as the referent group and adjusting for age, race/ethnicity, and U.S. Census region.

Results: Over two-thirds (69.3%) of MSM were eligible to receive a referral for PrEP versus 64.8% of transgender persons (aPR=0.94, 95% CI: 0.89-0.999), 59.2% of PWID (aPR=0.83, 95% CI: 0.75-0.91), 45.3% of heterosexual men (aPR=0.63, 95% CI: 0.57-0.69), 43.1% of heterosexual women (aPR=0.60, 95% CI: 0.54-0.68), and 27.5% of the other/unknown population group (aPR=0.39, 95% CI: 0.29-0.52). All groups except transgender persons (32.9%; aPR=0.92, 95% CI: 0.84-1.02) had lower percentages of being referred to a PrEP provider compared to MSM (36.2%): PWID (28.3%; aPR=0.75, 95% CI: 0.59-0.96), heterosexual women (15.3%; aPR=0.40, 95% CI: 0.35-0.46), heterosexual men (14.8%; aPR=0.39, 95% CI: 0.34-0.44), and other/unknown population group (10.5%; aPR=0.28, 95% CI: 0.21-0.38). Similarly, all groups except transgender persons (29.0%; aPR=0.91, 95% CI: 0.79-1.04) were less likely to receive PrEP linkage services compared to MSM (32.3%): PWID (24.9%; aPR=0.73, 95% CI: 0.57-0.94), heterosexual women (15.1%; aPR=0.44, 95% CI: 0.37-0.51), heterosexual men (15.1%; aPR=0.43, 95% CI: 0.38-0.49), and other/unknown population group (10.4%; aPR=0.31, 95% CI: 0.24-0.40).

Figure PrEP Services among Persons Testing Negative via CDC-Funded HIV Testing in Non-Healthcare Settings. Adherence submission

Conclusion: MSM and transgender persons were the two groups most likely to receive PrEP-related services through CDC-funded HIV prevention services. However, it is important for programs to engage all persons at risk for HIV infection to ensure receipt of PrEP-related support.

1045

Discordance between HIV Risk Perception, Sexual Behavior, and PrEP Adherence among Young Sexual and Gender Minorities in the United States: An ATN 142 Analysis

Nicole K Kelly (presenting)¹, Matthew T. Rosso², Crissi Ranier², Kristina Claude², Kathryn E. Muessig², Lisa Hightow-Weidman²

¹ University of North Carolina at Chapel Hill, Department of Epidemiology, Chapel Hill, NC, USA

² Institute on Digital Health and Innovation, Florida State University, Tallahassee, FL, USA

Background: Pre-exposure prophylaxis (PrEP) is critical to ending the HIV epidemic, yet adherence has lagged among key populations, including young sexual and gender minorities (YSGM). One common belief posits that youth struggle with adherence due to their developing decision-making skills, but quantitative evidence is limited. We examined whether individual decision-making factors (HIV risk perception and sexual behavior) predicted PrEP adherence in a trial of YSGM.

Method: In 2019-2021, the ATN 142 study randomized 225 PrEP users (ages 16-24) throughout the country to a smartphone app for PrEP adherence, the app plus text-based coaching, or regular care. Multivariable regression estimated associations between HIV risk perception (modified Perceived HIV Risk Scale, range: 5,28), sexual behavior (condomless anal sex in the past 3 months), and self-reported PrEP adherence (> 4 pills/week) cross-sectionally (baseline) and longitudinally (3 months).

Results: At baseline, 86.2% reported high PrEP adherence, 55% recently had condomless anal sex, and the median HIV risk perception score was 13 (interquartile range: 10,15). Baseline risk perception (RR: 0.93, 95% CI: 0.83,1.04) and sexual behavior (RR: 1.09, 95% CI: 0.97,1.24) were not associated with adherence cross-sectionally and did not predict 3-month adherence (RR: 0.95, 95% CI: 0.83,1.08; RR: 1.05, 95% CI: 0.92,1.20, respectively). Baseline risk perception was not associated with sexual behavior at either time point (baseline RR: 1.12, 95% CI: 0.93,1.34; 3-month: RR:1.09, 95% CI: 0.89,1.34).

Conclusion: HIV risk perception and sexual behavior did not predict PrEP adherence in this national trial. Only addressing individual perceptions and behaviors may insufficiently bolster PrEP use among YSGM. Future interventions for youth should target multilevel adherence barriers.



1053 Combining Community-Based Chronic Disease Care with Economic Strengthening Opportunities for Adults Living with HIV: Clustered Randomized Trial Evidence from Kenya

Marta Wilson-Barthes (presenting)¹, Becky Genberg², Juddy Wachira³, Dan N. Tran⁴, Catherine Kafu⁵, Omar Galarraga¹

¹ Brown University, Providence, RI, USA

² Johns Hopkins Bloomberg, Baltimore, MD, USA

³ Moi University, Kesses, Kenya

⁴ School of Pharmacy, Temple University, Philadelphia, PA, USA

⁵ Academic Model Providing Access to Healthcare, Eldoret, Kenya

Background: Poverty is a robust determinant of HIV care engagement. We assessed whether delivering care for HIV, diabetes and hypertension within community-based microfinance groups increased purchasing power and reduced debt among microfinance group members living with HIV in rural Kenya.

Method: We randomized 57 established microfinance groups (which use informal banking to generate modest income via collective saving and lending) comprised of 739 members living with HIV in a 1:1 ratio to receive either integrated HIV and non-communicable disease (NCD) care or standard facility care. Integrated care included clinical evaluations, ART distribution, and point-of-care testing from a clinician during regular group meetings in the community. Microfinance participants were followed over 18 months with quarterly data collection. We assessed preliminary 9-month data using individual-level panel-data fixed effects regression models and treatment- by-time interactions.

Results: Microfinance group members receiving integrated, community-based care attended an average of 6 meetings per quarter, compared to 4 meetings attended by facility-care patients. After 9 months, the percentage of members with a monthly income >\$40USD (~Kenyan poverty line) remained constant among community-based care recipients but fell by 5% among facility patients. As shown in the Figure, outstanding loan debts decreased among integrated care recipients at each follow-up visit (by 10.1% at visit 2 ($p>0.10$) and 61.5% at visit 3 ($p<0.10$)). Differentiated care was associated with a 62-65% increase in microcredit purchases, which decreased by 29% ($p>0.10$) and 35% ($p<0.10$) at follow-up visits 2 and 3, respectively.

Conclusion: Having access to integrated HIV and NCD care in the community was associated with improvements in income generation and debt reduction among microfinance group members living with HIV. However, some of these associations waned over time. Including poverty-reducing interventions within differentiated HIV care approaches could improve adherence to chronic disease care, and warrants examination over longer follow-up.

1058 Implementation of Injectable Cabotegravir-Rilpivirine in an Ambulatory Infectious Diseases Clinic

Taylor Ward (presenting)¹, Melanie Berry¹

¹ Boston Medical Center, Boston, MA, USA

Introduction: Cabotegravir/rilpivirine (CAB/RPV) was recently approved as a first in class long-acting injectable antiretroviral (ARV) to treat HIV-1. As CAB/RPV interest has increased, there has been a greater demand to offer this medication for in-clinic administration. CAB/RPV injections require more clinic time and resources than traditional oral therapies, making it important to have a well-developed plan prior to implementation.

Description: Boston Medical Center (BMC) is home to the largest HIV/AIDS program in New England. The Center for Infectious Diseases (CID), is a collaborative clinic comprised of medical providers, nurses, clinical pharmacists, and pharmacy technicians. Clinical pharmacists developed and have maintained an injectable antiretroviral clinic within CID. Physicians refer interested patients for eligibility review, interaction identification and patient counseling. Pharmacy technicians perform benefits investigation and assist with obtaining medication from the health-system's specialty pharmacy. Pharmacist visits occur for each injection during the first 6 months of therapy. Patients are then discharged back to the provider for future administrations and monitoring. At any point during treatment, patients may be referred back to the clinical pharmacist for assistance with changing injectable therapy for travel, adverse effects or patient preference.

Lesson Learned: 109 patients have been initiated on CAB/RPV with 95 patients currently receiving injectable antiretrovirals. Pharmacist involvement in viral load monitoring has helped prevent errors in administration timing. Weekly interprofessional huddles have addressed areas for optimization as the program has exponentially grown.

Recommendations: HIV care expands beyond the CID clinic at BMC, including internal medicine, pediatrics, addiction and pregnancy clinics. CAB/RPV would provide new options for these patients. Using the current model in CID, injectable clinics can be implemented in these other locations. Other opportunities for support are being explored including case management assistance with appointment reminders and transportation to visits.



1063 Re-Linkage Protocol for Out of Care HIV Patients at an Urban Emergency Department

Bernice McCoy (presenting)¹, Oluwatobi Ozoya¹, Brandi Travis¹, Heather Henderson¹, Jason Wilson¹

¹ Tampa General Hospital, Tampa, FL, USA

Background: The CDC estimates 1-1.2 million people in the United States are HIV-positive. One-fourth of these individuals are unaware of their HIV status and a significant portion are out of care. The Emergency Department (ED) can help diagnose new HIV positives and re-link known/out-of-care HIV positives by integrating HIV screening into existing clinical workflow.

Method: In May 2016, an ED based HIV screening program was operationalized at Tampa General Hospital as part of the Gilead FOCUS Program. Through the FOCUS program, 46,800 ED patients were screened for HIV by December 31st, 2019. Reactive specimens received confirmatory testing and confirmation of care status through EMR (electronic medical record) review and a partnership with the local department of health.

Results: To date, a significant portion of out of care patients have been identified through routine screening and re-engaged in care. If a patient was out of care, LTC (linkage to care) specialists worked to re-establish care via collaborative partnerships that often provide same day care for patients. Further, an alert was built that allowed providers to 'flag' a patient's chart if they were out of care. If the patient returned to the ED, a direct page was sent to the FOCUS team, along with social work to facilitate re-engagement in HIV care.

Conclusion: Routine screening helps to reduce the number of undiagnosed, decrease the number of those who are diagnosed late and ensure strong linkage to care. By building a process for out of care patients, TGH ensures streamlined access to medical care. Public health action with re-engagement reduces transmission rates. The routine screening infrastructure coupled with robust follow-up and community partnerships is a model approach for helping to end the HIV epidemic.

1064 Differentiation of Equivocal Human Immunodeficiency Virus (HIV) Screening Results in the Emergency Department Utilizing Specific Clinical Characteristics: The Importance of Patient Risk Factors

Bernice McCoy (presenting)¹, Heather Henderson¹, Jason Wilson¹, Kaitlyn Pereira², Oluwatobi Ozoya¹

¹ Tampa General Hospital, St Petersburg, FL, USA

² USF MCOM, Tampa, FL, USA

Background: We consider the clinical presentation of patients with equivocal HIV test results in the ED (HIV Ab/Ag +, HIV Ab -) found through routine ED-based HIV screening and further describe those patients that presented to the ED during acute seroconversion (acute +) compared to the clinical characteristics of patients that were ultimately found to have false + initial screening results.

Method: Four years of HIV testing data was reviewed from an ED based HIV screening program from 2016-2020. Equivocal HIV test results were identified and classified into two groups according to results of subsequent quantitative HIV nucleic acid reverse transcriptase polymerase chain reaction (RT-PCR) testing: acute positive (AC) or false positive (FP). Patient level chart review was conducted to abstract demographics and potential risk factors for either HIV or a positive screening result in the absence of HIV. Potential explanatory variables for differentiating equivocal test results were analyzed for statistical significance.

Results: We screened 55,244 patients for HIV (16% volume) in 3 years. 1024 patients had a positive antibody result, and of those, 787 had non-equivocal positive HIV results. Of the 99 that were equivocal (12.6% of all positives), 73 had no detectable HIV RNA (false +), while 26 patients were acutely infected. Qualitative review of equivocal patients' clinical characteristics during the reactive screening encounter is included.

Conclusion: Clinical characteristics of presenting patients may allow further stratification of equivocal results during the clinical encounter, increasing provider confidence in whether a result represents a FP or AP. Early order entry, sample collection and decreased turnaround times of an HIV nucleic acid RT-PCR tests are critical steps to fully differentiate HIV-equivocal patients. ED physicians should consider both the ARCHITECT HIV Ag/Ab Combo assay and nucleic acid test during the patient's initial ED encounter.



1066 Cultural-Adaption of an Internet-Based Cognitive Behavioral Intervention among Young Men who have Sex with Men in China

Benjamin Eisenstadt (presenting)¹, Mengyao Yi¹, Xianhong Li¹, John Pachankis², Ashley Hagaman², Si Pan¹

¹ Central South University, Changsha, Hunan, China

² Yale School of Public Health, New Haven, CT, USA

Background: HIV prevalence among young men who have sex with men (YMSM) in China has increased sharply since 2006. Evidence-based interventions are increasingly recognized as highly promising strategies to reduce YMSM's HIV risk. Our team is the first to culturally adapt a CBT-based (cognitive-behavioral therapy) intervention called "Effective Skills to Empower Effective Men" (ESTEEM) in China in 2019. However, China's mental health resources are lacking and unevenly distributed, with the COVID-19 pandemic globally, strict lockdown limits the generalization of face-to-face counseling further. This study aimed to adapt the ESTEEM program into an online model, and evaluate its acceptability, feasibility, and cultural appropriateness.

Method: Based on the ADAPT-ITT model, two rounds of "topical experts" meetings were held to ensure the cultural relevance of ESTEEM intervention for internet delivery. A pre-experiment was conducted with 10 Chinese YMSM who received a 10-session internet-based counseling intervention. The self-rated Likert-10 collected the session clarity and helpfulness. Qualitative semi-structured exit interviews explored feasibility, platform and content accessibility, pacing, and therapist connectedness. Finally, the iCBT program was revised and improved again according to the feedback.

Results: The learning duration varies from 30 to 90 minutes for each session. The mean score of session clarity for 10 sessions ranges from 7.60 ± 1.08 to 8.89 ± 0.93 , session helpfulness ranges from 7.43 ± 1.27 to 8.56 ± 0.88 . Qualitative results indicated that the online self-driven iESTEEM was deeply needed, welcomed and acceptable. More revisions were needed to facilitate comprehension and user-friendliness. Revisions included adjusting the story examples, adding introduction videos recorded by counselors, illustrations and audio recordings. The platform was adapted to computer and mobile terminals, and the intervention frequency was set as once a week.

Conclusion: The iCBT-based ESTEEM program was developed with preliminary acceptability, feasibility, and cultural appropriateness, and it is ready for randomized clinical trials to examine its effectiveness.

1069 Mechanisms of Successful Implementation of Tailored Motivational Interviewing in a Multi-Site Study of Youth HIV Clinics in the United States

Sylvie Naar (presenting)¹, Devon Kimball², Demetria Cain³, Meardith Pooler-Burgess¹, Shane Rambo¹, Jason Chapman⁴, Robin Miller²

¹ Florida State University, Tallahassee, FL, USA

² Michigan State University, East Lansing, MI, USA

³ Hunter CUNY, New York, NY, USA

⁴ Oregon Social Learning Center, Eugene, OR, USA

Background: A recent implementation science stepped-wedge trial of tailored motivational interviewing (MI) in adolescent HIV clinics indicated variable degrees of implementation success. The present mixed methods study analyzed trajectories of post-implementation MI competence scores and compared post-implementation qualitative interviews among the clinics with the highest levels of provider competency and the lowest levels of competency to further understand mechanisms of successful implementation of evidence-based practices (EBPs) such as MI.

Method: The current study utilized a sequential explanatory mixed methods design. Continuous MI competency data from the parent study were structured with repeated measurements nested within providers nested within 10 sites. A mixed effects regression model rank ordered the clinics by competence scores. Key stakeholders (N=77) at the 10 randomized clinics completed a one-hour qualitative interview at 12-month follow-up (immediately post-implementation). Using the phases of reflexive thematic analysis, interviews from the three highest competence clinics and the three lowest were pragmatically analyzed.

Results: Thematic analysis suggested 3 central themes that influenced successful EBP implementation. Organizational culture included the leadership, collective effort, and resources that influenced how the organization at large responded to the implementation intervention. Staff attitudes encapsulated individual providers' mindsets and attitudes about MI and the implementation intervention. EBP integration reflected the perception and use of MI by individuals and the organization as a whole. These themes and their subthemes are interconnected and exerted an influence on each other through the implementation process.

Conclusion: Findings suggest additional implementation strategies to improve implementation of evidence-based practices. Such mixed methods research is critical to understanding the mechanisms of successful implementation of evidence-based practice and improving future implementation strategies.



1071 Willingness to Receive HIV Testing Kits from Recent Sexual Partners among Men in Dar es Salaam, Tanzania: Findings from the STEP Project Baseline Survey

Kelia Olughu (presenting)¹

¹ George Washington University, Washington, DC, USA

Background: Globally, men are less likely to access HIV services and men living with HIV fare poorly compared to women. Addressing HIV service challenges among men is crucial to the global HIV/AIDS response. HIV self-testing (HIVST) has been demonstrated to be a potentially effective strategy in improving HIV testing coverage among men. However, limited studies have examined men's willingness to receive HIVST kits from their sexual partners. This study assessed and identified factors influencing willingness to receive HIVST kits from sexual partners among men in Tanzania.

Method: Data are from the baseline survey of the Self-Testing Education and Promotion (STEP) project, a five-year study among men in Tanzania. Participants were recruited from 18 camps (social networks) in Dar es Salaam, Tanzania, and included men aged 18 years or older who self-reported as HIV-negative and were camp members for at least three months. Logistic regression models were used to assess factors associated with men's willingness to receive HIVST kits from their sexual partners.

Results: A total of 505 heterosexual male participants were enrolled in the study with an average age of 29 years, of which 69% reported being willing to receive HIVST kits from their sexual partner. Logistic regression models demonstrate that willingness to receive HIVST kit from sexual partner was significantly associated with awareness of HIVST (aOR = 4.3, 95%CI [2.6 – 7.2]), previous discussion of HIVST with sexual partner (aOR = 12.2, 95%CI [7.1 – 20.9]), and previous testing for HIV with sexual partner (aOR = 2.1, 95%CI [1.2 – 3.9]).

Conclusion: These findings support the potential for partner-delivered HIVST kit distribution among men in Tanzania. Furthermore, it suggests that additional promotional strategies to improve men's awareness of HIVST and support open conversation about HIVST and HIV testing with sexual partners could improve men's willingness to receive HIVST kits when distributed through their sexual partners.

1076 Dynamic Association between Intra-Patient Variability in ARV Plasma Concentration and HIV RNA Viral Suppression: Findings from a Longitudinal HIV Study with Ingestible Sensor Monitoring

Yan Wang (presenting)¹, Veenu Bala², Yilan Huang¹, Di Xiong¹, Jie Shen¹, Linyu Zhou¹, Lisa Siqueiros¹, Marc Rosen³, Courtney Fletcher², Eric Daar¹, Honghu Liu¹

¹ University of California, Los Angeles, Los Angeles, CA, USA

² University of Nebraska Medical Center, Omaha, NE, USA

³ Yale University, New Haven, CT, USA

Background: Adherence to antiretroviral (ARV) is critical to achieve viral suppression for persons living with HIV infection (PLWH). However, accurately measuring adherence remains a clinical and research challenge. We aimed to investigate associations between ARV plasma concentrations and HIV RNA viral suppression (VLS) over time to show the importance of ARV adherence.

Method: PLWH were randomized into two groups, Ingestible Sensor (IS) and Usual Care (UC). All study participants received tenofovir alafenamide (TAF)-containing regimen at dosage 10 or 25mg. Plasma samples were collected at baseline and week 4,8,12,16,20,24 and 28. A one-compartment population PK model with a proportional error and random effects for person and time was developed to calculate the integrated PK adherence measure (IPAM) score. A high IPAM score (≥ 0.8) indicated a high concentration predictability and high adherence. Survival analysis was used to model the time to first VL rebound (>50 copies/mL). A two-sample log rank test was used to compare time to first VL rebound between IS and UC groups.

Results: We included 81 (IS:41, UC:40) PLWH who reported difficulty achieving optimal adherence. There were 6 (15%) in IS group and 15 (38%) in UC group who had a VL rebound. Overall, IS group took a longer time to first VL rebound ($p=0.029$). The IS group with the highest IPAM score had the longest time to first VL rebound ($p=0.004$). This significance carried over to the Cox regression model when adjusted for age, baseline VL, and CD4% ($p<0.001$).

Conclusion: The association between a high IPAM score and a longer time for VL rebound over time supported that IPAM score can be used as a biomarker to validate medication adherence. Furthermore, the IPAM score, reflecting intra-patient PK variability over time, can directly serve as a measure of adherence.



1085 Safe in the Safe Space: Harnessing the Reach of Female Sex Workers (FSW) through Social Networks for Integrated Prevention and Treatment Services: The Case of Mwanjuni Health Post

Julius Chilongoshi (presenting)¹

¹ JSI Research & Training Institute, DISCOVER-Health Project, Lusaka, Zambia

Introduction: Zambia aims to achieve HIV epidemic control by 2025 in line with the UNAIDS 95-95-95 targets. Traditional methods of health service delivery exclude some HIV vulnerable population groups with high-risk behaviors. Using safe spaces for HIV/AIDS service delivery that reduces stigma, discrimination and long waiting hours is critical to serving key populations with person centered care.

Description: The USAID-funded DISCOVER-Health Project engaged female sex workers (FSWs) *queen mothers* through Mwanjuni Health facility in Chibombo District to facilitate access to FSWs social network in order to provide integrated prevention and treatment services in their safe spaces using a person-centered approach, the Safe in the Safe Space (SSS) model. SSS adopts individual preferences and supports expectations of HIV vulnerable populations. The unstructured supplementary service data (USSD) platform provides the opportunity to access Health services within safe spaces without worrying about stigma and discrimination, or limited privacy and confidentiality.

Lesson Learned: 10 FSWs from the social network were trained as KP mentors to mobilize peers to access integrated prevention and treatment services through the use of the USSD -*573# platform on their phones in their safe spaces. 11 experienced health care service providers were given additional training in key population sensitivity and safety for the SSS provision. From the program inception in January 2023, through the USSD platform of the SSS model, 242 FSW were reached, 98 were tested, and 94 were initiated on PrEP and 4 on ART.

Recommendations: Leveraging the FSW social network platforms as a way to deliver differentiated service delivery models has demonstrated effectiveness in addressing key barriers to accessing HIV prevention and treatment. The SSS model takes quality services closer to where people live, thereby responding to their expectations and needs by reducing barriers to service access.

1086 Preference for Long-Acting Pre-Exposure Prophylaxis (PrEP) by Adherence and Persistence on Daily Oral PrEP among Cisgender Women and Black and Hispanic Men in the United States

Carolyn Brown (presenting)¹, Supriya Sarkar², Kyli Gallington³, Tonia Poteat⁴, Karin Coyne³, Patrick Daniele³, Leigh Ragone¹, Vani Vannappagari¹

¹ ViiV Healthcare, Atlanta, GA, USA

² ViiV Healthcare, Baltimore, MD, USA

³ Evidera, Bethesda, MD, USA

⁴ UNC Department of Social Medicine, Chapel Hill, NC, USA

Background: HIV pre-exposure prophylaxis (PrEP) is an effective approach to prevent HIV acquisition; however, there are disparities across the PrEP continuum in the United States, particularly among cisgender women and Black and Hispanic men. Long-acting (LA)-PrEP may provide an opportunity to close gaps in PrEP uptake, adherence, and persistence in these populations.

Method: Two US national surveys were conducted between November 2021 – March 2022 among cisgender women and Black and Hispanic cisgender men, respectively. Participants were recruited through geographically targeted social media campaigns and completed a self-administered, online survey covering demographics, sexual health/behavior, PrEP awareness, usage, intention, and preferences. Among current DO-PrEP users, preference for LA-PrEP compared to daily oral (DO)-PrEP was measured among current DO-PrEP users in both surveys and stratified by monthly adherence (pills taken in the past 30 days) and persistence on DO-PrEP. Monthly adherence to DO-PrEP was categorized as poor/fair (<16 days in last month), good (16-29 days), and excellent (30 days). Persistence was categorized as taking DO-PrEP for ≤6 consecutive months versus >6 consecutive months.

Results: Among survey respondents, 209/1834 women and 280/1728 Black and Hispanic men were current DO-PrEP users. Of them, LA-PrEP was strongly preferred over DO-PrEP, particularly among those with excellent (women: 80.5%; men: 78.4%) and poor/fair (women: 75.0%; men: 83.3%) monthly adherence and those who had been taking DO-PrEP for ≤6 months (women: 77.5%; men: 68.3%) (Figures 1-2). Effectiveness at preventing HIV was a highly cited reason for interest in LA-PrEP and ease of use was more commonly cited among those with poor/fair DO-PrEP adherence compared to those with good and excellent adherence (Figures 3-4).

Conclusion: A significant proportion of current DO-PrEP users are interested in LA-PrEP. Recent PrEP initiators and those with adherence challenges expressed a particular interest in LA-PrEP.



1093 Preferences Regarding a Real-Time Urine Assay for Monitoring and Providing Feedback on Pre-Exposure Prophylaxis Adherence among Women in Kenya

Phelix Okello (presenting)¹, Kenneth Ngure², Vallery Ogello¹, Emmah Owidi¹, Peter Mogere¹, Stephen Gakuo¹, Deepalika Chakravarty³, Charlene Biwott¹, Purba Chatterjee³, Jennifer Velloza³, Nelly Mugo¹, Monica Gandhi³

¹ Kenya Medical Research Institute, Nairobi, Kenya

² Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

³ University of California, San Francisco, CA, USA

Background: Objective adherence measures have been demonstrated to be more reliable than self-reported adherence. Real-time monitoring of pre-exposure prophylaxis (PrEP) drug levels with feedback could improve subsequent adherence. We sought to understand preferences about a novel urine assay for monitoring PrEP adherence among women at risk of acquiring HIV in Kenya.

Method: From May to December 2022, we conducted in-depth interviews (IDIs) and focus group discussions (FGDs) with stratified purposive sampled women on PrEP who were enrolled in a pilot trial to examine a point-of-care urine assay for tenofovir in the PUMA trial (NCT03935464). Interviews were conducted after the final study follow-up visit at 12 months for participants in the urine assay arm. We analyzed interviews thematically to identify key themes related to point-of-care urine test preferences.

Results: We conducted 20 IDIs and 3 FGDs, the median age of participants was 30 years, (interquartile range (IQR): 24-37). The clinic-based urine test was preferred to home-based testing due to; post-test adherence counselling provided in the clinic and ability for the provider to perform additional tests such as HIV testing. Participants also mentioned increased confidence in sharing adherence patterns with health care providers with the urine assay. Participants who preferred home-based testing cited convenience; however, they had privacy concerns with their partners and children. Additionally, participants expressed preference for an adherence test that would show drug levels – high, moderate or low – compared to the binary adherent/not adherent result displayed by the current test.

Conclusion: Clinic-based urine testing for monitoring PrEP adherence was highly preferred. Future implementation of the novel urine assay to measure and deliver PrEP adherence information in real-time should consider routine testing in clinical settings to effectively support adherence among this population.

1098 Structural Syndemics and HIV Care among Justice Involved South Floridians Living with HIV

Felicia O. Casanova (presenting)¹, Kathryn Nowotny¹

¹ University of Miami, Center for HIV and Research in Mental Health, Miami, FL, USA

Background: Structural factors, including housing instability and criminal justice involvement, are syndemic with HIV, mental illness, substance use, and exposure to violence. Mass incarceration is both a cause and consequence of US racial health disparities. The post-release period following confinement in prison or jail is a particularly vulnerable period for people with HIV.

Method: We conducted a qualitative life history study using an adaptive calendar method and in-person and Zoom interviews (range 35 min. to 1:45 long). The study examined the syndemic pathways and risk subjectivities for suboptimal HIV care among justice-involved persons with HIV and the social and structural contextual factors that shape these pathways.

Results: On average, participants were 50 years of age and included four Black (non-Hispanic unless otherwise noted) women, eight Black men, one Hispanic woman, three Hispanic men, five White women, and one White man. Criminal justice involvement of participants ranged from being recently released from jail (n=16), from state prison (n=3), and from federal prison (n=3), with eight under community supervision at the time of the interview. Interviews were analyzed using a rapid qualitative analysis. Participants had to manage their care within poverty, trauma, substance use, institutional mistrust, repeated incarcerations, and homelessness. All participants had experienced housing instability throughout their life stages and were incarcerated more than once. Oral life history narratives revealed multiple experiences facilitating and limiting antiretroviral treatment while incarcerated. The time following the participant's release was characterized by two primary barriers to treatment challenges navigating complex health systems and access to stable housing.

Conclusion: Future interventions for people who have criminal justice involvement and are living with HIV should address housing security and health services support, such as peer navigators and community health workers who can support linkage to care and other social or structural needs to strengthen treatment adherence efforts.



1100 Pharmacologic Drug Detection and Self-Reported Adherence in the HPTN069/ACTG5305 Phase II PrEP Trial

Stanley Cooper (presenting)¹, Shuaiqi Zhang², Kenneth Mayer³, Rivet Amico⁴, Raphael Landovitz⁵, Craig Hendrix⁶, Mark Marzinke⁶, Walrimu Chege⁷, Marybeth McCauley⁸, Roy Gulick⁹

¹ Weill Cornell Medicine, New York, NY, USA

² Fred Hutchinson Cancer Center, Seattle, WA, USA

³ Fenway Health/Harvard, Boston, MA, USA

⁴ University of Michigan, Ann Arbor, MI, USA

⁵ University of California, Los Angeles, CA, USA

⁶ Johns Hopkins Medical School, Baltimore, MD, USA

⁷ National Institutes of Health, Rockville, MD, USA

⁸ FHI 360, Durham, NC, USA

⁹ Weill Cornell Medicine, New York, NY, USA

Background: Medication adherence is critical for optimal preexposure prophylaxis (PrEP) efficacy. We evaluated self-reported and drug concentration indices of adherence in HPTN069/ACTG5305, a randomized trial of 4 PrEP regimens: 3 candidate regimens [maraviroc (MVC); MVC + emtricitabine (FTC); MVC + tenofovir (TDF)]; and 1 control regimen (TDF + FTC).

Method: Self-reported adherence by computer-assisted self-interview (CASI) and plasma drug concentrations were assessed at study weeks 24 and 48. Descriptive statistics and a generalized linear model was used to assess the association between selected demographic factors, self-report of daily medication adherence, and drug concentrations consistent with daily adherence based on historical directly observed TDF/FTC concentrations.

Results: Among 370 participants (227 cisgender men/2 transgender women, 140 cisgender women/1 transgender man) 65% had drug concentrations and 43% had CASI survey responses consistent with daily adherence. In adjusted analyses, participants who identified as male (aOR 1.42 [CI 1.02, 1.97]), older (aOR 1.10 [CI 1.09, 1.11]), White (aOR 2.2 [CI 1.88, 2.56]), advanced education (aOR 3.89 [CI 2.97, 5.09]), employed (aOR 1.89 [CI 1.50, 2.40]), or partnered/married (aOR 2 [1.72, 2.32]) were more likely to have drug concentrations consistent with daily adherence. Participants who were male (aOR 1.24 [CI 1.20, 1.29]), older (1.09 [CI 1.09, 1.09]), or white (aOR 1.28 [CI 1.05, 1.56]) were similarly more likely to self-report PrEP adherence, even when drug concentrations reflected non-daily adherence.

Conclusion: In HPTN069/ACTG5305, most participants had drug concentrations consistent with daily adherence, although less than half reported daily adherence. Male, older, White, employed, college-educated, and partnered/married participants were more likely to have drug concentrations reflecting daily adherence. Male, older, and white PrEP users were also more likely to overestimate their medication adherence by self-report when drug concentrations suggested non-daily adherence.

1101 Exploring Longitudinal Engagement in PrEP Care in a Cohort of Individuals Newly Initiating PrEP in St. Louis, MO, from 2015-2021: A Multi-State Analysis

Lindsey Filiatreau (presenting)¹, Rupa Patel¹, Katherine Curoe¹, Ashley Underwood¹, Aditi Ramakrishnan¹, Elvin Geng¹, Aaloke Mody¹

¹ Washington University in St. Louis School of Medicine, St. Louis, MO, USA

Background: Engagement in pre-exposure prophylaxis (PrEP) care and routine screening for sexually transmitted infections (STI) is critical to realizing the full benefits of this HIV prevention strategy. Yet, little is known about how individuals engage, disengage, and re-engage in care over time.

Method: We enrolled individuals in a PrEP cohort in St. Louis, Missouri between April 2015 and November 2021 and used electronic health record and participant survey data to explore longitudinal care outcomes using multi-state methods. We assessed transitions between eight mutually exclusive care states (Figure 1). Individuals were considered to have a lapse in care or lab coverage when they had a greater than 183-day gap in clinic visits or STI testing, respectively.

Results: 470 individuals newly linked to PrEP care were included (90.3% male; median age 29 (IQR, 25-36); 52.9% White, non-Hispanic). One week following enrollment, 86.8% (95% CI: 83.9, 89.9) of participants had a PrEP prescription (Figure 2). At 12-months, 45.3% (95% CI: 42.0, 48.7) of individuals had disengaged from care after initiation. Of these, 30.8% (95% CI: 25.8, 35.2) re-engaged within 6 months (i.e., by 18 months following enrollment). At 12-months following enrollment, 16.8% (95% CI: 13.8, 19.3) of participants were not up to date on HIV or STI screening. Across the study period, 18 individuals disengaged from care prior to PrEP prescription (3.8%) and five seroconverted (1.1%).

Conclusion: Lapses in clinic visits and STI screening are common among those in PrEP care. Moreover, a majority of people who disengage do not return to care. Multi-state methods can be used to capture these dynamic engagement patterns and help target public health planning related to PrEP care.



1102 Development of an Online Metaphor Story Intervention to Promote Condom Use among Men who have Sex with Men in China

Ci Zhang (presenting)¹, Wenru Wang², Shufang Sun³, Honghong Wang¹, Yin Bai⁴, Yan Shen¹, Xianhong Li¹

¹ Xiangya School of Nursing Central University, Changsha, China

² National University of Singapore, Singapore

³ Brown University, Providence, RI, USA

⁴ Central South University, Changsha, China

Background: The HIV epidemic among Chinese men who have sex with men (MSM) is still severe. Condom-related stigma is one of the most significant barriers to consistent condom use, which remains low among MSM. This study aims to develop an online metaphor story intervention (MET-I) to reconstruct the cognition about condom use and reduce condom-related stigma among Chinese MSM.

Method: The MET-I strategy was developed in six steps. First, metaphor stories were solicited based on the condom-related stigma scale. Second, they were edited by one literary writer, one literary expert, two HIV prevention experts, and three psychotherapists. Third, the stories were uploaded to an online learning platform, accessible to participants through a widely used online social media platform (WeChat). Fourth, pilot testing was performed to evaluate the feasibility and acceptability, and relevant edits were made. Fifth, readability of the metaphor stories was assessed using the Chinese readability model. Finally, the content appropriateness of the stories was evaluated by experts.

Results: From May 4th, 2020, to October 24th, 2020, we received 31 stories in total. After revisions, 24 metaphor stories covering a wide range of topics were developed, including people from diverse backgrounds, HIV serostatus, types of partners, and story endings (good, bad, or open). The stories were embedded with condom-related stigma and provided with relevant reflections and coping skills for considering or negotiating using condoms. The readability score ranged from 4.830 to 7.997, indicating that participants should have at least a middle school education. MSM participants (N = 20) in the pilot testing expressed that the MET-I strategy was feasible and acceptable. The content appropriateness index was 0.88.

Conclusion: The developed online MET-I intervention is feasible and acceptable, and thus it has the great potential to eliminate condom-related stigma and promote condom use among the MSM population.

1113 How Ready are Ryan White Clinics to Implement Long-acting Injectable Antiretrovirals? Findings from a National Cross-Sectional Survey

Adati Tarfa (presenting)¹, Harlan Sayles², Sara Bares², Havens Joshua², Nada Fadul²

¹ University of Wisconsin-Madison, Madison, WI, USA

² University of Nebraska Medical Center, Omaha, NE, USA

Background: The approval of the long-acting injectable antiretroviral regimen, cabotegravir/rilpivirine (LAI CAB/RPV) heightens the urgency of ensuring effective implementation. Establishing readiness has been identified as a critical step in the implementation process. Our study assessed readiness and barriers to implementation of LAI CAB/RPV in Ryan White-funded clinics across the United States (US).

Method: Using a cross-sectional survey, we examined readiness using validated four-item measures of Acceptability (AIM), Appropriateness (IAM), and Feasibility (FIM) of intervention measures. Scores ranged from 1-5 with higher values indicating greater readiness for implementation. We measured associations between implementation measures and clinic characteristics using Spearman rank correlations. Five-point Likert scales were used to rate barriers as 1 for "not a barrier at all" to 5 for "extreme barrier."

Results: Sixteen percent of 270 clinics completed the survey (38% federally qualified health centers, 36% academic, 20% community-based organizations (CBO), 14% hospital outpatient and/or 9% non-profit clinics). Means, standard deviation, and ranges were AIM (17.6 (2.4) [12-20]); IAM (17.6 (2.4) [13-20]), and FIM (16.8 (2.9) [7-20]). Twenty percent were not at all and 52% were slightly or somewhat ready. There was a significant association between AIM and the proportion of Medicaid patients (AIM, $\rho = 0.312$, $p = 0.050$). CBOs scored the highest readiness measures (AIM mean = 19.50, SD = (1.41); IAM mean = 19.25, SD = 1.49, FIM mean 19.13, SD (1.36). Implementation barriers were identified as adherence to monthly visits, concerns about drug resistance in patients who do not adhere to monthly visits, and cost of implementation.

Conclusion: Readiness interventions tailored to Ryan White clinic types are needed to successfully implement novel antiretroviral regimens addressing the barriers of adherence and cost of implementation.



1118 Improved Adolescent-Caregiver Relationships and Self-Efficacy among Adolescents and Young Adults with HIV through use of an ART Adherence Monitor

Julian Adong (presenting)¹

¹ Mbarara University of Science and Technology, Mbarara, Uganda

Background: Many adolescents and young adults with HIV (AYWH) struggle with antiretroviral therapy (ART) adherence and experience poorer outcomes compared with adults. Relevant factors include forgetfulness and poor self-efficacy related to their evolving neurobiology. Important caregiver roles may be compromised by evolving relationships as AYWH transition to independence. We qualitatively explored experiences of AYWH-caregivers dyads using real-time ART adherence monitors and associated reminder functions in the home setting.

Method: As part of an implementation science-oriented study, AYWH used the Wisepill adherence monitor for 3 months. AYWH could also opt for SMS self-reminders, a self-selected social supporter for delayed or missed doses, or an alarm reminder. We conducted in depth interviews with randomly selected AYWH-caregiver dyads (stratified by age <19 vs ≥19 years), regarding their likes and dislikes, experience using the monitor, suggested improvements, privacy/stigma, and effect on clinic care. Qualitative data were analysed using inductive content analysis.

Results: Of the 25 AYWH enrolled in the parent study, 56% were female, mean age was 16 years, 88% were perinatally infected, 72% lived with their biological mother, and 92% were virologically suppressed. We completed 15 AYWH-caregiver dyad interviews. AYWH and their caregivers generally found the adherence monitors acceptable, though some had privacy concerns, particularly around alarm noise. AYWH felt the monitors helped them take charge of their medication, largely through the real-time alarm and SMS reminders. These tools took the burden of adherence reminders away from the caregivers, improving strained AYWH-caregiver relationships. Two adolescents reported rebound poor adherence after monitor withdrawal.

Conclusion: ART adherence monitors and associated tools were largely acceptable to AYWH and their caregivers in home settings. The intervention helped improve AYWH self-efficacy and alleviated burden from some AYWH-caregiver relationships. Rebound poor adherence suggests the need for on-going support and/or other means to achieve intrinsic mechanisms for sustained adherence.

1120 Preparing for Pharmacy-Based Delivery of Long-Acting Injectable Antiretroviral Therapy

Jennifer Cocohoba (presenting)¹, Yvette Cuca¹, Elizabeth Sherman², George Udeani³, Kelly Hester⁴, Michael Bryan Sigua¹, Parya Saberi¹

¹ University of California San Francisco, San Francisco, CA, USA

² Nova Southeastern University, Ft. Lauderdale, FL, USA

³ Texas A&M University, College Station, TX, USA

⁴ Auburn University, Auburn, AL, USA

Background: Long-acting injectable antiretroviral therapy (LAI-ART) offers patients the convenience of less frequent dosing and freedom from taking daily oral medications. Currently available LAI-ART must be administered by a healthcare provider, typically within a clinic setting. The goal of this study is to explore potential for community pharmacies to administer LAI-ART in the United States.

Method: A mixed-methods study of clinic providers, pharmacists, and patients at four sites (California, Texas, Alabama, and Florida). Participants complete an online survey and are subsequently interviewed using a semi-structured interview guide with questions based on the Consolidated Framework for Implementation Research.

Results: 44 participants have completed the study to date (17 clinic staff, 16 community pharmacists, 11 patients). Participants generally held positive attitudes about the potential for community pharmacies to administer LAI-ART. Commonly cited benefits of a pharmacy-based LAI-ART service included proximity to patients' homes, increased hours for convenience, and the ability for clinic personnel to focus on other clinical tasks. Existing familiarity of clinic providers and patients with pharmacy-provided vaccine services and positive relationships between pharmacies and patients or clinics facilitated this vision. Potential barriers to a pharmacy-based LAI-ART service include pharmacists' scope of practice to administer medications, potential for pharmacy to be overwhelmed by work given low staffing, concerns about privacy, lack of bi-directional communication systems between clinics and pharmacies, and financial sustainability.

Conclusion: Use of community pharmacies as an alternative delivery site for LAI-ART is desirable, yet additional resources may be required to support this model of care. Systems to integrate clinics, pharmacies, and the patient community must be thoughtfully and equitably designed to optimize communication and coordination around LAI-ART, protect patient privacy, meet clinic and community needs, and provide adequate pharmacy reimbursement to sustain services



1122 Perceived Barriers and Facilitators to Informing HIV/AIDS Patients about Undetectable Equals Untransmittable: A Qualitative Study from the Perspective of Chinese Healthcare Providers

Qidi Zhou (presenting)¹, Xianhong Li¹

¹ Central South University, Changsha, China

Background: The slogan “Undetectable equals Untransmittable” (U=U) greatly has reduced HIV related stigma and has improved HIV patients’ quality of life in the world. Despite these positive effects, however, this slogan has not been widely adopted in China.

Method: We designed a descriptive qualitative study to understand the barriers and facilitators to providing U=U information to HIV/AIDS patients from the perspective of healthcare providers (HCPs) in Hunan province of China. Between October 2021 to May 2022, we conducted 16 in-depth interviews with HCPs. We used a socio-ecological framework to guide the data collection and data analysis. We transcribed verbatim audio recordings into Mandarin and, translated quotations into English. Thematic analysis was used to analyze the data.

Results: Although most HCPs believed that providing information about U=U could significantly benefit HIV patients, they still reported numerous barriers to actually providing this information. We identified nine major themes as individual, interpersonal, and healthcare system barriers. Individual-level barriers included: inaccurate knowledge, doubts about reliability, perceived potential risks of increased HIV/STD transmission. Interpersonal-level barriers included population-related informing biases and ethical concerns. Healthcare system-level barriers included purview paradox, lack of guidelines or consensus, inadequate frequency of free viral load tests, and limited time and privacy. Meanwhile, we identified five major themes as facilitators for informing U=U information. Individual-level facilitators included convinced clinical cases, perceived benefits of informing U=U, and professional role and responsibility. Other facilitating themes included patients’ needs (interpersonal level) and international U=U campaigns (healthcare system level).

Conclusion: The program explored the barriers and facilitators of informing U=U among HCPs in China and discussed ways to overcome the barriers to informing regarding U=U. This may help decrease HIV stigma and increase well-being of HIV patients

1129 Qualitative Analysis of a Warm Handoff Linkage Approach for Cisgender Black Women to Pre-Exposure Prophylaxis (PrEP): A Systems Focus

Mandy Hill (presenting)¹, Olivia Morris¹, Bethany Russell¹, Sarah Sapp¹, Jeffrey Campbell², Jovaun Hicks², Teriya Richmond², Angela Heads¹, Angela Stotts¹

¹ University of Texas Health, Houston, TX, USA

² AIDS Foundation, Houston, TX, USA

Background: Incident HIV cases among cisgender Black women present urgent healthcare and equity concerns. Pre-exposure Prophylaxis (PrEP) is effective biomedical HIV prevention however uptake is lower for cisgender Black women than any other race/ethnic group. Understanding PrEP linkage pathways in cis Black women is critical for designing culturally competent, effective interventions.

Method: Through the first RCT of a behavioral intervention for linking PrEP-eligible cis Black women from an emergency department visit to an initial PrEP clinic visit in Houston, TX, we enrolled 40 participants and scheduled PrEP appointments in real-time with roundtrip transportation. Participants were followed with 30, 90, and 180-day follow-up calls. We used a thematic analysis to examine self-reported push and pull factors for visit attendance.

Results: Chief reasons for non-linkage within 6 months were logistical complications, technical difficulties, and illness. Participants reported being unable to attend due to incarceration, housing changes, and scheduling difficulties. Numbers out of service or changed were primary technical difficulties. Participants also reported physical and emotional health conditions preventing them from attending, despite motivation. Personal values and importance of care established PrEP clinic care and research team contact were positive linkage factors whereas previous negative experiences acted against clinic follow-up and seeking PrEP.

Conclusion: Reasons for secure linkage were multifaceted. Social determinants of health and structural barriers for cis Black women play important roles in visit attendance. The importance of healthcare and research team relationships were emphasized bidirectionally. Interestingly, all precluding health conditions were reproductive-related, suggesting immediate reproductive health issues may hinder preventative reproductive health visits. Future HIV prevention strategies for cis Black women may benefit from leveraging existing motivation and values with structural barrier efforts. Altogether, we found participants displayed follow-up attendance resilience with desire to seek PrEP services despite barriers.



1140 A Longitudinal Examination of Intersectional Stigma, Antiretroviral Therapy Adherence, and Viral Load

Kristi Stringer (presenting)¹, Andrea Norcini Pala², Robert Cook³, Mirjam-Collette Kempf⁴, Deborah Konkole-Parker⁵, Tracey Wilson⁶, Gina Wingood², Torsten Neilands⁷, Mallory Johnson⁷, Elizabeth Topper⁹, Sheri Weiser⁷, Janet Turan⁴, Bulent Turan¹⁰

- ¹ Middle Tennessee State University, Murfreesboro, TN, USA
- ² Columbia University, New York, NY, USA
- ³ University of Florida, Gainesville, FL, USA
- ⁴ University of Alabama at Birmingham, Birmingham, AL, USA
- ⁵ University of MS Medical Center, Jackson, MS, USA
- ⁶ State University of New York Downstate Medical Center, Brooklyn, NY, USA
- ⁷ University of California, San Francisco, San Francisco, CA, USA
- ⁸ University of Toronto, Toronto, ON, Canada
- ⁹ John Hopkins University, Baltimore, MD, USA
- ¹⁰ Koc University, Istanbul, Turkey

Background: Studies examining intersectional stigma and adherence to antiretroviral therapy (ART) traditionally use cross-sectional data, which has limitations. We longitudinally examined the effects of intersecting HIV-related, race-related, gender-related, and poverty-related experienced stigma on ART adherence and viral load among women with HIV.

Method: Data were collected from 459 women with HIV in the Women's Adherence and Visit Engagement (WAVE) Study nested in the Women's Interagency HIV Study Cohort at four annual time points (*T*s). We used validated scales to assess HIV-related, race-related, gender-related, and poverty-related experienced stigma and ART adherence. Through Latent Markov Model and cross-lagged path analysis we established intersectional stigma latent classes and estimated average effects at the next time point on ART adherence and viral load (adjusting for age, income, race/ethnicity, substance use).

Results: We identified five longitudinal intersectional stigma classes. Compared with women in Class 1 (low poverty-related, HIV-related, gender-related, and race-related stigma; reference group), women with higher poverty-related, gender-related, and race-related stigma (Class 3) at *T-1* were 83% more likely to have 80-90% adherence level than >90% adherence level at *T* ($p < 0.05$). Women in Class 3 or Class 5 (higher levels of all intersectional stigma) at *T-1* had 2-folds higher odds ratio of <80% adherence levels at *T* compared with Class 1 ($p < 0.05$). Women in Class 5 at *T-1* had 78.5% higher odds ratios of detectable viral load at *T* compared with the reference group (Class 1; $p < 0.05$). Finally, compared with >90% adherence levels, 80-90% or <80% adherence levels at *T-1* were associated with 63% and 83% respectively higher odds ratios of detectable viral load at *T* ($p < 0.01$).

Conclusion: Simultaneous experience of poverty-related, gender-related, race-related, and HIV-related stigma may increase the risk of suboptimal adherence levels longitudinally in women with HIV, likely leading to higher rates of detectable viral load and poorer health outcomes.

1149 Early Childhood Stimulation Intervention for HIV-Positive Mothers Reduces Mother-to-Child Transmission Rates at 6 Weeks, 12 Months, and 24 Months

Deliwe Msiska (presenting)¹, Tsitsi Chirinda¹, Regina Lungu¹, Naomi Reich¹, Stephano Sandfolo¹

- ¹ Bantwana Initiative of World Education Inc., Blantyre, Malawi

Introduction: Though elimination of mother-to-child-transmission (eMTCT) is a priority in Malawi, UNAIDS 2021 vertical transmission rates were 7.55%, above the WHO recommended <5% for virtual elimination. It is against this background that Bantwana through Ana Patsogolo Activity implements and supports activities to eliminate mother-to-child-transmission of HIV in Southern Malawi.

Description: The USAID/PEPFAR funded Ana Patsogolo Activity in Malawi delivers an evidence-based-12 session early childhood stimulation curriculum to mother-infant baby pairs covering early childhood stimulation, early infant diagnosis, feeding practices/nutrition education, childhood immunization, responsive parenting, and ART adherence and psychosocial support for mothers. The curriculum is delivered by pairs of Health Surveillance Assistants and Community Linkage facilitators (ECS Facilitators) at the clinic when mothers come for antenatal, postnatal, under five and ART Clinics. Community Linkage facilitators use clinic registers to ensure all pregnant HIV positive women in prenatal care and all HIV positive women with children ages 0-2 on the HIV Care Clinic (HCC) registers are offered enrollment. If a mother misses a monthly session, the Community Linkage Facilitator visits them at home to deliver an individualized "catch up session" and also work with clinic staff to align dates for mothers and children's ART appointments to eliminate extra trips to the health facility.

Lesson Learned: Program data show that 91% of all eligible mothers in the catchment area (10,616 mothers out of 11,643) completed the curriculum. HIV exposed infants were tested according to the Malawi algorithm, and results show the mother to child transmission rate was 0.78% at 6 weeks, 1.03% at 12 months, and 1.2% at 24 months.

Recommendations: The APA ECS intervention shows the importance of early identification of HIV+ children and how community – clinic collaboration can close the gap in early infant diagnosis and prevention of mother-to-child-transmission.



1153 Preference for Daily Oral Pills Over Long-Acting Antiretroviral Therapy Options among People with HIV

Jane Simoni (presenting)¹, Douglas Barthold¹, Enrique Saldarriaga¹, Aaron Brah¹, Brett Hauber¹, Pallavi Banerjee¹, Shanil Fuller¹, Divine Mccaslin¹, Ana Maria Moldoveanu¹, Vincent Marconi², Susan Graham¹

¹ University of Washington, Seattle, WA, USA

² Emory University, Atlanta, GA, USA

Background: We aimed to examine the characteristics of people with HIV (PWH) who prefer remaining on daily oral antiretroviral therapy (ART) rather than switching to long-acting ART (LA-ART).

Method: Building upon a discrete choice experiment (DCE), we examined characteristics of individuals who always selected their current daily oral tablet regimen over either of two hypothetical LA-ART options presented in a series of 17 choice tasks. We used LASSO to select socio-demographic, HIV-related, and other health-related predictors of preferring current therapy over LA-ART and logistic regression to measure the associations with those characteristics.

Results: Among 700 PWH in Washington State and Atlanta, Georgia, 11% of participants ($n=74$) chose their current daily treatment over LA-ART in all DCE choice tasks. We found that people with lower educational attainment, good adherence, more aversion to injections, and who participated from Atlanta to be more likely to prefer their current daily regimen over LA-ART.

Conclusion: Gaps in ART uptake and adherence remain. Emerging LA-ART treatments show promise to address these challenges and help a larger portion of PWH to achieve viral suppression, but preferences for these new treatments are understudied. Our results show that drawbacks of LA-ART may help to maintain demand for daily oral tablets, especially for PWH with certain characteristics. Some of these characteristics (lower educational attainment and Atlanta participation) were also associated with a lack of viral suppression. Future research should focus on overcoming barriers that impact preferences for LA-ART among those patients who could benefit most from this innovation

1159 From Concept to Implementation: The Story of PositiveLinks, an Evidence-Based mHealth Intervention for HIV Care

Karen Ingersoll (presenting)¹, Rebecca Dillingham¹

¹ University of Virginia, Nellysford, VA, USA

Introduction: This case study discusses how a clinic-deployed app to improve retention in care (RIC) achieved dissemination.

Description: Patients loved early SMS interventions. We hypothesized that a theory-based mHealth intervention could foster a warm connection to patients' HIV clinic, improving treatment outcomes. Foundation funding supported development of a secure mobile app drawing from Social Action Theory and the Information-Motivation-Behavior Change Model. The clinic-deployed app, *PositiveLinksV1*, included self-monitoring of mood, stress, and medication adherence, feedback of data, an anonymized Community Board, lab results, vetted resources, and a provider portal. A 12-month prospective trial with nonurban PWH showed significantly increased RIC and unexpectedly, viral suppression. With health department support, we added secure messaging with staff, document uploading, a provider app, and staff training via an online learning management system for *PositiveLinksV2*. Research on *PositiveLinksV2* showed reduced stigma, improved social support, and convenient communication between staff and patients.

Lesson Learned: In 2017, *PositiveLinksV3* became the usual care in our clinic, and distribution to other HIV clinics statewide began. Currently the health department supports PL in 7 other Virginia clinics. We established *Warm Health Technology, Inc.*, to disseminate a commercial version, *PL Cares®*, to organizations outside Virginia. Nine organizations in 6 states and 2 other countries have deployed *PL Cares®*. Research continues; NIH-funded testing of tailored versions in a Washington D.C. citywide cohort and San Antonio youth is underway.

Recommendations: Basing mHealth intervention features on health behavior theory, systematically establishing and extending evidence, capitalizing on continuous clinic-based innovation, and tailoring to subpopulations led to recognition of PositiveLinks as an evidence-based practice in HIV care by CDC and HRSA. This created demand for the HIV care app in the U.S. by states and HIV care providers. We will share lessons learned and best practices at stages of conceptualization, tailoring/adaptation, ongoing research, clinical dissemination, and commercialization.



1161 Usability and Acceptability of an mHealth Platform for People Living with HIV in Washington, DC

Sylvia Caldwell (presenting)¹, Karen Ingersoll¹, Olivia Kirby², Tabor Flickinger¹, Chloe Garofalini², Shannon Hammerlund², Rebecca Dillingham¹, Karen Ingersoll¹, Amanda Castel², PositiveLinks in DC Cohort Study Team¹

¹ University of Virginia, Charlottesville, VA, USA

² George Washington University Milken Institute School of Public Health, Washington, DC, USA

Background: The evidence for use of mHealth applications to increase engagement in care and viral suppression is growing. *PositiveLinks (PL)* was developed in a primarily rural-serving clinic as a comprehensive mHealth platform for PWH. Features include daily self-monitoring "check-ins" of mood, stress, and medication adherence, an anonymized community board for social support, secure in-app messaging with the clinic team, lab value displays, and vetted resources. We sought to tailor *PL* for a predominantly minority, urban population of PWH in Washington, DC, by testing the usability and acceptability of the app.

Method: We recruited PWH from the DC Cohort, a longitudinal HIV cohort of persons receiving outpatient HIV care in Washington, DC, for Beta Testing during which PWH used *PL* for a 1-month period. Demographic surveys were analyzed, and qualitative analysis of post-testing interviews were conducted using Dedoose. We analyzed paradata of app usage and responses to the System Usability Scale (SUS).

Results: Fourteen participants used the app for 1 month (median age 51, 64% male, 64% Black). The mean SUS score was 76% (range: 48%-100%) indicating above average usability. Paradata showed a median response rate of 96.5% and 90.5% for daily check-ins and medication adherence check-ins, respectively. Thematic analysis of post-Beta Testing interviews showed that participants liked check-ins and found the app user-friendly. Dislikes included entering appointment dates manually, and no integration with clinic electronic health records (EHRs). Participants suggested integration with EHRs, more guidance in response to mood and stress check-ins, and interoperability with other devices.

Conclusion: Despite development in a primarily rural setting, *PositiveLinks* seems highly usable and generally acceptable to an urban and racially diverse group of PWH. Findings informed subsequent tailoring for a cluster randomized efficacy trial among DC Cohort participants

1165 High Interest for Long-Acting Injectable PrEP among Pregnant Women Taking Daily Oral PrEP in Kisumu, Kenya

Tessa Concepcion (presenting)¹, John Kinuthia², Felix Abuna¹, Julia Dettinger¹, Laurén Gómez¹, Emma Mukenyi², Nancy Ngumbau², Jerusha Nyabiage¹, Ben Ochieng², Salphine Watoyi², Jillian Pintye¹

¹ University of Washington, Seattle, WA, USA

² Kenyatta National Hospital, Nairobi, Kenya

Background: New long-acting (LA-) injectable PrEP methods may overcome barriers to taking daily oral PrEP. Preferences for LA-PrEP during pregnancy and postpartum remain unelucidated.

Method: We analyzed data from an ongoing RCT among pregnant women initiating oral PrEP at 5 antenatal clinics in Kisumu, Kenya (NCT04472884). Participants were HIV-negative, ≥18 years, 24-32 weeks' gestation, and had high HIV risk scores. Behavioral characteristics and PrEP use were assessed at monthly pregnancy visits. Participants were asked about their interest in LA-PrEP implementation factors. We evaluated LA-PrEP preferences by self-reported oral PrEP adherence using multinomial regression models.

Results: Between November 2022 and February 2023, 172 women contributed 329 visits. The median age was 24 years (IQR 21-29), gestational age at enrollment was 25 weeks (IQR 24-28), 86.0% had a partner of unknown HIV status, and 4.2% had partner living with HIV. Nearly half (41.9%) missed at least one PrEP pill in the previous 30 days and 86.5% reported any interest in LA-PrEP. Healthcare clinics were the most preferred access point (83.3%); 2.1% preferred retail pharmacies (**Table 1**). Compared to those who did not miss any PrEP pills, those who missed pills had a 3.58-fold higher relative risk (aRR) for having slight LA-PrEP interest than no interest (relative aRR 95% CI: 1.27 - 10.07, $p=0.016$). Relative to no interest, high interest in LA-PrEP had 0.38-fold lower aRR for those who missed PrEP pills (relative aRR 95% CI: 0.15 - 0.96, $p=0.041$) (**Table 2**).

Conclusion: In this cohort of pregnant women initiating oral PrEP in Kenya, there was broad interest in injectable PrEP and strong interest among those with no missed PrEP pills. Implementation planning should consider introduction in healthcare facilities and differentiated PrEP options for this population.



1166 Fidelity of Multi-Month ARV Dispensing and Viral Load Outcomes: Results from a Cohort Study in Côte d'Ivoire

Lauren Greenberg (presenting)¹, Marc N'goran¹, Nicole Herrera¹, Ignace Tosseu Ban¹, Joseph Diby¹, Fathim Kamagate², Alexandre K. Ekra², Samuel Tchwenko², Appolinaire Tiam¹, Yannick Meless¹

¹ Elizabeth Glaser Pediatric AIDS Foundation, Takoma Park, MD, USA

² Centers for Disease Control and Prevention, Center for Global Health, Division of Global HIV/AIDS and TB, Abidjan, Cote d'Ivoire

Background: Multi-month dispensing (MMD) of antiretroviral drugs (ARVs) is standard for many clients of all ages; however, data on consistency and correlation between consistent MMD and virologic outcomes remain limited.

Method: Between June-December 2020, we enrolled a prospective observational cohort of virally suppressed children and adults initiating MMD (first receipt of ≥ 90 days of ARVs in 2020) in 29 health facilities in Côte d'Ivoire. We conducted participant interviews and chart abstraction every six months for 18-24 months. We determined the proportion of participants receiving ≥ 90 days of ARVs at all visits ("consistent MMD") and evaluated factors associated with viral load (VL) coverage and suppression (<1000 copies/mL) through logistic regression models.

Results: We enrolled 711 participants (659 adults, 52 children, 70% female). Of participants remaining in care (>2 clinical visits), 75% (492/654) received consistent MMD (significantly higher among adults than children: 78% vs. 38%, $p<0.001$), and lower (64%) among pregnant women ($N=25$). Common reasons for inconsistent MMD were provider preference and elevated VL; among adults, those with unsuppressed VL were significantly less likely to receive consistent MMD ($p<0.001$). Within 12 months after first MMD pickup, 94% of adults and 100% of children had ≥ 1 viral load test (85% of children had ≥ 2 results). Among adults, 88% were suppressed at all VLs ≥ 6 months after transition to MMD, compared to 72% of children. None of the demographic/clinical factors evaluated (age, sex, marital status, education, disclosure, time on ARVs, or having children) were significantly associated with viral suppression.

Conclusion: Clients transitioned to MMD- particularly children- do not necessarily receive MMD consistently. VL coverage remained high after MMD, and 12% of adults and 28% of children had elevated VL during the study (despite being clinically stable at enrollment).

1171 Vuka+, Novel Smartphone-based PrEP Adherence Support Intervention for Adolescent Girls and Young Women, Pilot Study

Homaira Hanif (presenting)¹, Kathryn E. Muessig², Jacob Stocks², Aimee Rochelle², Karen Dominguez¹, Lauren Fynn³, H. Luz McNaughton-Reyes⁴, Eliana A. Langoni⁴, Lisa Hightow-Weidman², Katherine Gill³, Linda-Gail Bekker³, Gustavo F. Doncel¹

¹ CONRAD/EVMS, Arlington, VA, USA

² Institute on Digital Health and Innovation, Florida State University, College of Nursing, Tallahassee, FL, USA

³ The Desmond Tutu HIV Centre, University of Cape Town, Cape Town, South Africa

⁴ University of North Carolina, Chapel Hill, NC, USA

Background: Adherence to oral daily PrEP is challenging especially for young populations. Vuka+ is a smartphone intervention app tailored to support medication adherence, persistence and social support for adolescent girls and young women (AGYW) in South Africa applying a human-centered design approach. The app includes PrEP reminders, medication and behavior trackers, informational resources, social support, Q&A, skill-building, messaging and gamification. A pilot study assessed the app acceptability, usability and participant experiences in preparation for a randomized Type I hybrid study.

Method: A 4-week intervention was conducted from February to May 2022. Participants were AGYW attending a Desmond Tutu Health Foundation research clinic in Cape Town, age 16–24, sexually active, HIV-uninfected and PrEP-eligible with regular smartphone access. Enrolled women received a 30-day supply of oral PrEP, and Vuka+, the intervention app. Participants were instructed to use the app at least once daily to log medication taking behavior and complete suggested activities. Study data was collected at baseline and exit through surveys, app paradata and qualitative interviews.

Results: Thirty participants were enrolled and 28 completed follow-up measures. One third of participants used the app consistently to track PrEP and reported high medication adherence (50% self-reported $>80\%$ pills taken). Participants logged in an average of 5.6 times/week for a length of 7.3 minutes/week (range: 0 to 47.6 minutes). At one-month follow-up, the Vuka+ app received a median System Usability Scale score of 70 (Table 1), just above average for app-based interventions. The medication and behavioral trackers were the most utilized features and were consistently positively evaluated as supporting adherence. The second most commonly utilized feature was the educational resources, including content in the form of articles and activities.

Conclusion: The Vuka + app, designed based on AGYW preferences, was acceptable and usable to study participants. App technical and implementation issues were identified and corrected for the follow-on effectiveness and implementation trial.



1174 A Qualitative Exploration of Sexually Transmitted Infection (STI) Partner Notification Preferences and Practices among Women Planning for Pregnancy and Considering HIV Pre-Exposure Prophylaxis in Durban, South Africa

Pooja Chitneni (presenting)¹, Yolandie Kriel², Mxolisi Mathenjwa², Ivana Beesham¹, Bongeka Qiya¹, Patricia M. Smith³, Shannon Bosman⁴, Manjeetha Jaggernath², Jennifer Smit², Lynn T. Matthews⁴

¹ Brigham and Women's Hospital, Boston, MA, USA

² Wits MatCH Research Unit (WMRU), University of the Witwatersrand, Durban, South Africa

³ University of Alabama at Birmingham, Birmingham, AL, USA

⁴ Center for the AIDS Programme of Research in South Africa, Durban, South Africa

Background: Sexually transmitted infection (STI) partner notification is key to fostering STI cure and preventing onward STI transmission; this is critical among people planning for pregnancy given the high STI morbidity and mortality for neonates. This qualitative study explores how women planning for pregnancy and considering HIV pre-exposure prophylaxis approach STI partner notification in Durban, South Africa.

Method: We conducted a cohort study evaluating pre-exposure prophylaxis use as a part of safer conception care among adult women (≥ 18 years) without HIV, partnered with a man with unknown or positive HIV-serostatus, and planning for pregnancy. As part of an STI-focused sub-study, 25 women who completed etiologic STI screening also completed qualitative interviews exploring participant STI partner notification practices, preferences, and interaction with pregnancy. We used an inductive and deductive approach to generate a codebook, organized our findings according to the HIV Disclosure Processes Model, and identified preliminary themes using thematic analysis.

Results: This qualitative sub-study engaged 25 women with median age 24 (range 19-33) years, with 4 (16%) individuals becoming pregnant during the study. Preliminary themes included 1) Participants both anticipated and experienced accusations of secondary partnerships after STI partner notification; 2) Participants preferred in-person and clinician-assisted STI partner notification; 3) Participants believed they test for STIs before and as a proxy for their male partners; 4) STI diagnoses led to participants mistrusting partners and increasing condom use which subsequently decreased pregnancy planning interest.

Conclusion: Participants' STI partner notification fear of accusations of secondary partnerships was often a real outcome. Since women report high STI testing and care engagement, they bear a high burden of partner notification and potential subsequent blame. Interventions are needed to engage men in STI testing and care and to protect women from the potential harms of STI partner notification.

1182 Tujuane Tujiamini: Community Perspectives of Stigma and Recommendations from People Living with HIV in Obunga, Kenya

Lauren Harrison (presenting)¹, Kevin Otieno², Laura Adema², Dancan Omondi², Fred Otieno³, K Rivet Amico¹

¹ University of Michigan, Ann Arbor, MI, USA

² Tugutuke Jamii Organization, Kisumu, Kenya

³ Nyanza Reproductive Health Society Kenya (NRHS), Kisumu, Kenya

Background: The experience of stigma challenges efforts to obtain and maintain well-being for people living with HIV (PLWH), particularly when stigma is intersectional in nature. PLWH participated in a community consultation in the *Tujuane Tujiamini* project (a community-based organization (CBO)-academic partnership). Group-concept mapping was used to better understand the role of stigma in lives of LGBTQ+ community members residing in the Obunga 'slums', an informal settlement outside of Kisumu Kenya.

Method: An experienced facilitator and CBO staff used a semi-structured guide to facilitate concept-mapping steps (brainstorming and synthesizing definitions of, experiences with, and consequences of stigma). Products and field notes were thematically summarized and used to create a 'stigma' concept map.

Results: In November 2022, 13 PLWH participated in the community consultation- 7 men (5 cis- and 2 transgender) and 6 women (4 cis- and 2 transgender). Overlapping stigmatized identities (sexual and gender identity) challenged well-being and engagement with HIV- treatment services. Stigma (Figure 1) was experienced overtly (abusive language) and insidiously (attributed as the cause of exclusion and rejection), across most domains of functioning (social relationships, community networks, housing, health care, and self-care). Intersectional stigma contributed to feeling disrespected and unwelcome at some clinics, which participants associated with intentional discontinuation of care. Recommendations for improvements included; Providing education around disclosure and opportunities to improve mental health and wellbeing; Engaging health care workers, community members, and Chief Barazas in sensitization efforts; and Increased visibility of PLWH in community spaces. [Concept-Map CommunityStigma_LH23](#)

Conclusion: Stigma related to HIV-status, sexual orientation, and sex work challenged mental health and well-being among LGBTQ+ PLWH in Obunga, and in some cases promoted *disengagement* with HIV-care. Community recommendations to target efforts to improve experiences, particularly at point of care, should be considered.



1183 A Lateral Flow Device to Detect Emtricitabine in Urine for PrEP and ART Adherence Monitoring

Thomas Vanderford (presenting)¹, Xierong Wei¹, CAe Youngpairoj¹, Ayanna Green¹, Richard Haaland¹, Jeffrey Johnson¹, Walid Heneine¹

¹ Centers for Disease Control and Prevention, Atlanta, GA, USA

Background: Adherence monitoring is challenging in the absence of rapid and accurate measures of drug levels. Emtricitabine (FTC) is a fixed dose component of antiretroviral therapy (ART) and pre-exposure prophylaxis (PrEP) regimens making it a suitable adherence marker for both interventions. A rapid lateral flow assay (LFA) would provide low-cost detection for clinical monitoring to improve adherence. Here we describe the development of an LFA to detect FTC in urine for point-of-care testing as an indicator of daily adherence.

Method: LFAs were designed and optimized in collaboration with nano-Composix (San Diego, CA) using an FTC-specific monoclonal antibody generated by our group. FTC LFA measurements were read with a CubeReader (Chembio, Germany). LFA performance was evaluated on: (a) FTC-negative urine specimens (n= 102), (b) urine samples collected following a single FTC dose (n= 191), and (c) a cross-sectional sample of people with HIV (PWH) prescribed ART (n= 67) with adherence categorized by mass spectrometry measurement of drugs in plasma. LFA results were compared with FTC concentrations in urine measured by mass spectrometry.

Results: FTC LFA values from single dose individuals were highly correlated with mass spectrometry readings ($R^2 = 0.6855$, $p < 0.0001$) and this population exhibited a substantial drop in FTC concentrations between 8 and 24 hours. When adherent and non-adherent PWH on ART were stratified, the FTC LFA had a sensitivity of 91% and specificity of 91% for identifying adherent individuals when using a 20µg/mL cutoff. 97% of negative urine samples were below 20µg/mL.

Conclusion: We describe the first proof-of-concept LFA to measure FTC in urine as a marker of adherence to both PrEP and ART. Ongoing clinical specimen evaluations are informing the assay cutoff for measuring daily adherence with high sensitivity and specificity.

1187 Who Starts and Who Stays on PrEP: An Analysis of Routine Facility Records in Lesotho

Lauren Greenberg (presenting)¹, Felling Samonyane¹, Laura Beres¹, Lieketseng Masenyetse¹, Bokang Sekepe¹, Majoalane Mokone¹, Vincent Tukei¹

¹ Elizabeth Glaser Pediatric AIDS Foundation, Takoma Park, MD, USA

Background: Pre-exposure prophylaxis (PrEP) is a critical component of reaching and maintaining epidemic control in high-prevalence settings; however, there is limited information about how PrEP is prescribed and used in routine clinical settings in high-prevalence low- resource countries.

Method: We abstracted existing routine PrEP-related data at 26 health facilities in Lesotho on all clients screened for, or initiated on, PrEP from January 2019-June 2021. Data included client characteristics, indications for starting PrEP, PrEP persistence measured by recorded follow-up visits (through data abstraction completion in May 2022), and HIV seroconversion. Logistic regression models were used to identify factors associated with having a record of any PrEP persistence post-initiation.

Results: 4,088 individuals were initiated on PrEP during the study period: 61% female, 31% age <25, and 42% married. Documentation of screening was available for 38%. Among individuals with a screening form, only 10 did not initiate PrEP. Among those with documentation of entry point into PrEP (N=1821), the outpatient department (including voluntary HIV testing) was most common (39%), followed by antenatal/postnatal care (20%). The most common indication for initiating PrEP was being in a serodiscordant relationship (2101/3721, 56%); however, engaging in transactional sex or having multiple concurrent partners was a common indication among younger clients. Only 44% (N=1796) of those initiated on PrEP had any documented follow-up (30% had ≥2 follow-up visits). There were 11 documented seroconversions. In adjusted analysis, returning for any follow-up visit was significantly associated with female sex, older age, rural location, and being in a serodiscordant relationship.

Conclusion: The low proportion with documented screening, and screening without initiation, indicates a need for improved documentation and additional screening to optimize programmatic success. Enhanced support for retention of clients initiating PrEP is an urgent priority.



1195 Adherence to Hepatitis B Antiviral Treatment among People Living with Hepatitis B in Senegal

Adrià Ramírez Mena (presenting)¹, Kiné Ndiaye², Maguette Fall², Judicaël Tine², Oumy Camara², Amady Ndiaye¹, Ahmadou Mboup¹, Sadio Baldé Ka¹, Aboubakar Sidikh Badiane¹, Louise Fortes Deguenonvo¹, Dalal Jamm³, Daye Ka², Ndeye Fatou Ngom², Moussa Seydi², Gilles Wandeler¹

¹ Department of Infectious Diseases, Bern University Hospital, Bern, Switzerland

² Fann University Hospital, Dakar, Senegal

³ Dalal Jamm National Hospital, Guediawaye, Senegal

Background: Treatment adherence is crucial for preventing transmission and liver-related complications in people living with chronic hepatitis B virus (HBV) infection. We aimed to evaluate early adherence to antiviral therapy and reasons for treatment interruptions in persons living with HBV in Senegal.

Method: We included participants enrolled in the SEN-B cohort between 2019 and 2022, and who were prescribed tenofovir disoproxil fumarate (TDF) for > 6 months. We excluded people living with HIV from this analysis. A standardized questionnaire was administered to monitor treatment adherence and reasons for medication interruption during a routine clinical visit 6-12 months after initiation of TDF or entry into the study. We defined optimal adherence as no missed doses during the past month, poor adherence as having missed at least one dose a week, and treatment interruptions as having missed at least two consecutive doses. We assessed risk factors for poor adherence using multivariable logistic regression.

Results: Of 793 persons with HBV in SEN-B, 151 (19.2%) received TDF for at least 6 months. Their median age was 31 years (interquartile range [IQR] 25-38) and 41.1% were women. At the time of adherence assessment, participants had been on TDF for a median of 14 months (10-23). Overall, 113 (74.8%) individuals had optimal adherence, 24 (15.9%) reported poor adherence and 36 (23.8%) reported treatment interruptions. The most frequent reasons for missing doses were: "I ran out of medication" (33.3%), "I forgot" (27.8%) and "I was travelling" (25%). Age below 30 years was associated with a 4-fold increase in the risk of reporting poor adherence (odds ratio 4.13, 95% CI 1.51-11.26).

Conclusion: Poor adherence to antiviral therapy was reported by one in four participants and was more frequent in young patients. Effective strategies to reinforce treatment adherence in people with chronic hepatitis B are needed in Africa.

1198 Sexual and Reproductive Health Needs Assessment of Adolescents and Young People Living with HIV (AYPLHIV) in Lagos State

Helen Omowumi Olowofeso (presenting)¹, José M. Zuniga², Sindhu Ravishankar², Oladipupo Fisher³, Monsurat Adeleke³, Toriola Femi-Adebayo⁴

¹ International Association of Providers of AIDS Care, Lagos, Nigeria

² International Association of Providers of AIDS Care, Washington, DC, USA

³ Lagos State AIDS Control Agency, Lagos Island, Nigeria

⁴ Lagos State University Teaching Hospital, Lagos, Nigeria

Background: Access to integrated SRH services is pivotal for ensuring whole person care among Adolescents and Young People Living with HIV (AYPLHIV). However, utilisation of SRH services among AYPLHIV remains sub-optimal. Given the over 240,000 AYPLHIV in Nigeria, many of whom reside in Lagos, there is a need to further understand barriers and facilitators to ensuring AYPLHIV have access to the SRH services they need.

Method: A cross-sectional mixed methods study with 117 AYPLHIV from 2 secondary facilities and 3 tertiary facilities were surveyed and 5 AYPLHIV support-group based focus groups (8-10 participants per group) discussions (FGDs) conducted. 17 Key Informant Interviews (KIs) with Support Group Coordinators and ART Facility Coordinators across Lagos State we also conducted. The aim of the study was to assess the access to, and utilisation of Sexual Reproductive Health among adolescents and young people living with HIV (AYPLHIV) in Lagos State.

Results: 44% of the respondents reported reproductive or youth friendly service availability near them, however, 35% had never visited one. 34.2% of participants who visited a centre accessed treatment of STIs services. The most frequently reported barrier was the fear of HIV status disclosure (66.7%). Distance from home (55.6%), Staff hostility (47%), transportation costs (59.8%) were key barriers highlighted in FGDs as well as frequently reported in the survey. Lack of confidentiality (47.9%), cost of services (50.4%), and long waiting hours (48.7%) were also cited as barriers to accessing SRH service. Stigmatisation and cultural barriers were highlighted from the KIs.

Conclusion: The findings from the study illustrate that AYPLHIV could benefit from holistic SRH services with intersectoral and multidisciplinary collaboration to promote their overall physical, social, and mental wellbeing. Research on addressing barriers identified through this study could further inform how to best provide youth friendly SRH services.



1199 A Pilot Randomized Control Trial of Striving Towards Empowerment and Medication Adherence (STEP-AD) among Black Women Living with HIV in the U.S.

Sannisha Dale (presenting)¹, Ian Wright¹, Aarti Madhu¹, Rachelle Reid¹, Naysha Shahid¹, Mya Wright¹, Jasmyn Sanders¹, Arnetta Phillips¹, Allan Rodriguez¹, Steven Safren¹

¹ Department of Psychology, University of Miami, Coral Gables, FL, USA

Background: Black women represent the highest proportion of women living with HIV and face intersectional adversities associated with lower HIV medication adherence and higher mental health symptoms. Striving Towards Empowerment and Medication Adherence (STEP-AD) was developed for Black women living with HIV (BWLWH) to increase antiretroviral therapy (ART) adherence and improve mental health by enhancing resilience and adaptive coping in the face of trauma, racism, HIV-related discrimination/stigma, and gender-related stressors. STEP-AD incorporates cognitive behavioral therapy and culturally congruent coping shared by BWLWH and stakeholders in prior qualitative work.

Method: A pilot RCT was conducted with BWLWH and histories of trauma who were at risk for viral nonsuppression (e.g., <80% medication adherence, detectable viral load in the past year, and/or missed HIV medical appointments). 119 BWLWH were assessed at baseline and 78 met inclusion criteria and completed one LifeSteps session on adherence prior to randomization to STEP-AD (9 sessions) or ETAU (enhanced treatment as usual with 4 biweekly check-ins). Post-intervention, women completed two follow-up assessments (acute and 3 months after). Measures captured primary (ART adherence via Wisepill) and secondary outcomes (e.g., viral load, CD4, and PTSD symptoms and diagnosis (via clinician interview). Difference-in-Difference methodology was conducted utilizing mixed models comparing STEP-AD to ETAU on changes in outcomes overtime.

Results: BWLWH who completed STEP-AD (94% retained) compared to E-TAU (100% retained) had significantly higher ART adherence (estimate=9.11 p=.045), higher CD4 count (estimate=166.96, p=.03), and lower likelihood of PTSD (OR=.07, estimate=-2.66, p=.03).

Conclusion: Findings suggest preliminary efficacy of STEP-AD in improving ART adherence, immune function, and mental health by enhancing coping around trauma, racism, HIV-discrimination, and gender-related stressors, core stressors faced by BWLWH.

1200 Baylor College of Medicine ECHO Facilitating Antiretroviral StART Earlier (BE FASTER) Community of Practice for Increasing Rapid ART in Houston: A Qualitative, Longitudinal Study

Shital Patel (presenting)¹, Meheret Adera¹, Bich Dang¹, Caleb Brown¹, Naomi Sequeira¹, Melanie Goebel¹, Monisha Arya¹, Avishek Ghosh-Hajra¹, Kathryn Fergus¹, Shiva Sharma¹

¹ Baylor College of Medicine, Houston, TX, USA

Background: Rapid initiation of antiretroviral therapy (Rapid ART) is a key strategy for *Ending the HIV Epidemic* (EHE). In Houston, Texas, a priority EHE jurisdiction, 75% of persons with HIV (PWH) receive care at one of five Ryan White agencies. In 2019, 39% of recently diagnosed PWH in Houston took longer than one month to start ART. In this study, we evaluate the acceptability of the BE FASTER program, using the ECHO telementoring model, to establish a community of practice collaborative to initiate Rapid ART.

Method: Semi-structured interviews, across three time points: baseline, 3 months, and 9 months, were conducted among participants of the BE FASTER program (January 2022- January 2023). Participant roles in Rapid ART included prescribing providers, social workers, supportive service professionals, pharmacists, and administrators. Interviews were analyzed using rapid qualitative analysis.

Results: Twenty-nine participants were interviewed: Seventeen women (68%) and eight men (32%). Analyses revealed five themes: 1) Significant variability in Rapid ART protocols existed between the five Ryan White agencies, 2) Before the BE FASTER program, participants had little to no prior interactions with other agencies, 3) Participants reported having a greater sense of community as a result of the ECHO sessions, 4) Participants said case presentations and real life examples in the ECHO sessions were most useful and asked for more opportunities to interact (e.g., greater facilitation, breakout sessions, in person meetings), 5) At 9 months, participants reported having successfully streamlined their intake processes for Rapid ART, but that long term retention remained an ongoing challenge.

Conclusion: Participants found the BE FASTER program valuable and reported a positive impact on their cross-agency interactions. The BE FASTER program utilizing the ECHO model can be an important tool in creating cross organizational networks for EHE initiatives.



1201 Long-Acting Injectable ARV to Advance Health Equity: US Clinic Perspectives on Barriers, Needed Support, and Program Goals for Implementation

Nadia Nguyen (presenting)¹, Sarit Golub², Katherine King³, Cody Chastain⁴, Jason Zucker⁵, Benjamin Lane¹, Marvell Terry II¹, Jennifer Burdge⁴, Caroline Carnevale⁶, Anahit Simonyan⁴, Delivette Castor⁷, Bryan Kutner⁸, Kathrine Meyers¹

- ¹ Aaron Diamond AIDS Research Center, Columbia University Irving Medical Center, New York, NY USA
- ² Hunter College, New York, NY USA
- ³ New York City Department of Health and Mental Hygiene, New York City Department of Health and Mental Hygiene
- ⁴ Vanderbilt University Medical Center, Nashville, TN, USA
- ⁵ Division of Infectious Diseases, Department of Medicine, Columbia University Medical Center, New York, NY USA
- ⁶ New York Presbyterian Hospital, New York, NY USA
- ⁷ Division of Infectious Diseases, Department of Medicine, Columbia University Irving Medical Center, New York, NY USA
- ⁸ Albert Einstein College of Medicine, Bronx, NY USA

Background: Approval of the first long-acting injectable antiretroviral (LAIVARV) medication heralded a new era of HIV treatment. However, the inaugural year since approval has been marked by policy and implementation challenges. HRSA-funded “Accelerating Implementation of Multilevel Strategies to Advance Long-Acting Injectable for Underserved Populations (ALAI UP Project)” aims to support the systematic and equitable delivery of LAIVARV.

Method: We summarize implementation barriers, desired resources, and program goals reported by US clinics responding to ALAI UP solicitation to participate in the project.

Results: Thirty-eight clinics responded to ALAI UP’s solicitation. Reported barriers to implementation included: insurance authorization (27/38); need for systems to support injection scheduling/coordination (16/38); transportation and expanded clinic hours (13/38); new workflows and staffing (12/38); and patient (10/38) and provider (7/38) education. To support implementation, applicants sought: technical assistance to develop protocols and workflows (18/38), specifically strategies to address payor challenges (8/38); additional staff for care coordination and benefits navigation (17/38); opportunities to share experiences with other implementing clinics (12/38); patient-facing materials to educate and increase demand (7/38); and support engaging communities (5/38). Clinics’ LAI ARV program goals varied. Most prioritized delivering LAIVARV to their most marginalized patients struggling to achieve viral suppression, despite awareness that current FDA approval is only for virally suppressed patients. Target reach after one year of implementation ranged from ≤10% of patients (17/37) to ≥50% (3/37).

Conclusion: Most respondents aspire to use LAIVARV to support their most vulnerable patients achieve viral suppression. Dedicated resources centered on equity and relevant to context and population are needed to support protocol/workflow development, navigate payor complexities, share best practices, engage communities, and address staffing issues. Otherwise, the introduction of LAIVARV risks exacerbating, not ameliorating, health disparities.

1205 Developing Implementation Strategies to Enhance PrEP Delivery to Immigrant Latino Men who have Sex with Men

Ronald Brooks (presenting)¹, Elena Rosenberg-Carlson¹, Omar Nieto¹, Dilara Uskup¹, Katherine Morales¹

- ¹ UCLA Department of Family Medicine, Los Angeles, CA, USA

Background: Immigrant Latino men who have sex with men (ILMSM) are disproportionately affected by HIV in the United States. Yet few strategies exist to deliver HIV prevention tools such as pre-exposure prophylaxis (PrEP) to this population.

Method: A concept mapping approach was used to generate and prioritize strategies to optimize PrEP delivery to ILMSM. Community stakeholders were invited to participate. Steps included: (1) brainstorming ideas in response to our focus prompt, “*What strategies would enhance PrEP delivery to Immigrant Latino MSM in Los Angeles County?*”, (2) sorting brainstorming statements into similar groups, and (3) rating statements based on importance and feasibility. Multidimensional scaling and hierarchical cluster analysis were used to produce a point map and thematic clusters, and descriptive statistics generated a Go-Zone map based on mean importance and feasibility ratings.

Results: Nineteen participants generated 106 ideas in response to the focus prompt. A final list of 80 strategies was produced by removing redundancies. Participants selected their top 5 strategies for implementation: 1) Provide immediate access to and enrollment in PrEP services (e.g., same-day PrEP, PrEP walk-in clinic), 2) Gather testimonials from ILMSM who have buy-in to PrEP services and are willing to showcase their stories on social media, 3) Deliver comprehensive PrEP education and training to every staff member at clinics, 4) Provide support to help undocumented individuals enroll in insurance programs that cover PrEP services, and 5) Develop campaigns informing people that they can access PrEP through the California PrEP-Assistance Program regardless of their current documentation status.

Conclusion: Working with community stakeholders is important in developing PrEP delivery strategies that will work for ILMSM. Strategies should address issues such as early or immediate access to PrEP, building staff capacity to deliver services to ILMSM, and public campaigns informing individuals that PrEP services are available regardless of documentation status.



1207 Peer-Delivered HIV Self-Testing, STI Self-Sampling and PrEP for Transgender Women in Uganda: A Randomized Trial

Andrew Mujugira (presenting)¹, Agnes Nakyanzi¹, Rogers Nsubuga¹, Monica Bagaya¹, Timothy Ssebuliba¹, Kikulwe Robert Nyanzi¹, Olivia Nampewo¹, Oliver Sapiri¹, Juliet Birungi¹, Timothy Muwonge¹, Jessica Haberer²

¹ Infectious Diseases Institute, Kampala, Uganda

² Massachusetts General Hospital/Harvard Medical School, Boston, MA, USA

Background: Peer-delivered HIV self-testing (HIVST) and sexually transmitted infection self-sampling (STISS) could facilitate oral pre-exposure prophylaxis (PrEP) adherence among transgender women (TGW), but no studies in sub-Saharan Africa have evaluated this strategy.

Method: The Peer Study was an open-label cluster randomized trial in Uganda (October 2020 to July 2022; NCT04328025). Ten TGW peer groups (each with one peer and eight TGW) were randomized 1:1 to monthly peer delivery of HIVST, STISS and PrEP (3TC/TDF) (intervention) or quarterly in-clinic HIV testing and PrEP refills (standard-of-care; SOC). Participants were followed for 12 months. The primary outcome was PrEP adherence measured using tenofovir diphosphate (TFV-DP) levels in dried blood spots and assessed quarterly. A secondary outcome was self-reported condomless sex. PrEP adherence and condomless sex were compared by arm using generalized estimating equation models.

Results: We screened 85 TGW and enrolled 82 (41 per arm). The median age was 22 years (IQR 20-24). Nearly all (97%) had never used hormone therapy, 54% had intimate partners and 40% reported sex work. Baseline prevalence of rectal Chlamydia trachomatis and Neisseria gonorrhea was 29% and 20%, respectively. Twelve-month retention was 73% (60/82). The proportion with TFV-DP levels ≥ 700 fmol/punch at the 3, 6, 9 and 12-month visits was 10%, 5%, 5%, and 0% (intervention) and 7%, 15%, 7%, and 2% (SOC), respectively, with no differences by randomization arm ($p=0.7$). PrEP adherence was associated only with >10 years of schooling (adjusted odds ratio [aOR] 2.05; 95% CI: 1.05-3.98; $p<0.001$). Self-reported condomless sex was similar by arm (adjusted incidence rate ratio [aIRR] 0.97; 95% CI: 0.91-1.04; $p=0.39$). No HIV seroconversions were observed.

Conclusion: In this randomized trial, peer delivered HIVST and STISS had no effect on oral PrEP adherence or sexual behaviors among TGW in Uganda. Long-acting PrEP formulations should be considered for this key population.

1218 Barriers to Mental Health Care, Anxiety and Depression, and HIV Care Engagement among People with HIV in Rural Florida

Preeti Manavalan (presenting)¹, Yancheng Li¹, Zhi Zhou¹, Anne Gracy¹, Cailin Lewis¹, Rebecca Fisk-Hoffman¹, Robert Cook¹

¹ University of Florida, Gainesville, FL, USA

Background: People with HIV (PWH) in the rural South may face unique barriers to mental health care. We: 1) determined associations between rural residence and experiencing barriers to mental health care, depression and anxiety, and HIV care engagement and 2) described barriers to mental health care among a sample of PWH from rural Florida.

Method: The Florida Cohort study enrolls PWH from community HIV clinics across Florida. Between March 2022 and January 2023, 312 PWH (mean age 51, 69% rural, 57% male, 49% Black, 18% Hispanic) enrolled. Outcomes were experiencing a mental health care barrier (not receiving mental health care despite wanting care in lifetime or past year), moderate-severe depression/anxiety (PHQ8 or GAD7 score ≥ 10), and HIV care disengagement (missing ≥ 1 HIV appointment in last year). Simple logistic regression models assessed associations between rurality and these outcomes. Participants who experienced a barrier were asked what prevented care.

Results: Rural participants had more mental health care barriers, depression/anxiety, and HIV care disengagement compared to urban participants. Only differences in lifetime barriers and depression/anxiety were statistically significant (Table 1). Among rural participants the most common mental health barriers were not knowing where to seek care (35%), discomfort speaking with providers (27%), not wanting psychiatric medications (20%).

Conclusion: PWH from rural Florida experience more mental health care barriers which may negatively impact mental health and HIV outcomes. Interventions addressing these barriers are needed



1223 Telehealth Perspectives, Barriers, and Facilitators among People with HIV in Rural Florida: Qualitative and Quantitative Findings

Anne Gracy (presenting)¹, Yancheng Li¹, Cailin Lewis¹, Rebecca Fisk-Hoffman¹, Maya Widmeyer¹, Robert Cook¹, Preeti Manavalan¹

¹ University of Florida, Gainesville, FL, USA

Background: Telehealth (receiving and accessing healthcare remotely) is a potential strategy to address barriers to care faced by people with HIV (PWH) in the rural South. We examined barriers, facilitators, and perspectives related to telehealth use among a sample of PWH in rural Florida.

Method: Between July 2022 and February 2023, 25 semi-structured in-depth interviews were conducted with PWH (median age 54, 54% women, 33% Black) recruited from HIV clinics in rural north-central Florida. Applied thematic analysis was conducted. Separately, we analyzed cross-sectional survey data from 216 PWH (median age 57, 57% male, 38% Black, 19% Hispanic) recruited from HIV clinics in rural Florida and enrolled in the Florida Cohort study between March 2022 and January 2023. Descriptive statistics were used to describe access to mobile devices, internet, and telehealth interest.

Results: The qualitative data highlighted emerging themes in 3 domains: telehealth barriers, perceived benefits, and opportunities for improvement. Security concerns, lack of human connection, and low comfort level with technology were predominant barriers to telehealth use. Convenience, reduced stigma, and improved access to providers were perceived benefits, and participants desired integration of telehealth within HIV clinical settings. Survey data revealed 91% of participants had a cellular phone with unlimited minutes, 88% had a smartphone, 64% reported willingness to use telehealth for primary care, and 58% reported prior telehealth visits. One-third preferred telehealth compared to in-person visits. Telehealth barriers were common, including lack of public internet access (50%), running out of monthly cellular data (48%), lack of computer access (42%), lack of reliable home internet (25%), and lack of private space (20%).

Conclusion: Despite noted barriers, facilitators and perceived benefits support telehealth use among PWH in rural Florida. Additional research is needed to investigate telehealth use to improve access to care.

1224 Beyond the Clinic: Improving Adherence and Viral Load Suppression for Children and Adolescents Living with HIV (C/ALHIV) in Uganda through Home-Based Root Cause Analysis and Joint Action Planning

Baker Sserwambala (presenting)¹, Emmanuel Tibenderana¹

¹ World Education/Bantwana Initiative, Kampala, Uganda

Introduction: Uganda's HIV viral load suppression rate (VLS) for children (84.4%) remains below adults (94.6%) due to complex clinical and socio-economic factors. Under the USAID/Integrated Children and Youth Development Activity (ICYD), World Education/Bantwana Initiative employs community case management to deliver integrated health and social protection services to improve youth HIV treatment outcomes. ICYD observed that joint home visits by clinic and social welfare teams can rapidly improve adherence and VLS outcomes; unstructured processes and informal monitoring have limited impact.

Description: ICYD developed and tested a Root Cause Analysis (RCA) and Joint Action Plan (JAP) tool in 10 districts. Trained Social Workers (SWs) use the tools to assess adherence barriers (ART optimization, disclosure, treatment literacy, food security, child protection, and economic stability) with clinic counterparts during home visits. SWs develop JAPs, outlining roles and responsibilities of clinic and community actors, and through structured case management, monitor progress until children are suppressed and families manage HIV treatment independently.

Lesson Learned: Structured clinic-community coordination, routine data sharing, joint home visits, and continuous upskilling of SW cadres to use the tools were essential to success. Over nine months, the C/ALHIV VLS rate increased from 91% in Q4 of FY21 (N=4,941) to 93% in Q3 of FY22 (N=5,897). In real numbers, the 2% increase reflects an improvement in VLS from 4,526 to 5,484 children.

Recommendations: Joint RCAs and JAPs enable rapid assessment and resolution of adherence barriers that may be missed by busy clinics. Joint home visits maximize skills and resources of clinic and community teams and foster cross learning and appreciation for their contributions to HIV treatment goals. ICYD will use national platforms to advocate with the MOH and stakeholders to scale up integration of RCA and JAP tools in HIV programming.



1225 PWID Living with HIV in India Experience Viral Rebound on ART and Persistent Viremia

Talia Loeb (presenting)¹, Allison McFall¹, Sunil S Solomon¹, Aylur K Srikrishnan², Canjeevaram K Vasudevan², Rifa T Khan², Santhanam Anand², Saravanan Shanmugam², Nandagopal Paneerselvam², David D Celentano¹, Shruti H Mehta¹, Gregory M Lucas¹

¹ Johns Hopkins Bloomberg, Baltimore, MD, USA

² YR Gaitonde Centre for AIDS Research and Education, Chennai, India

Background: To fully realize the potential of HIV treatment as prevention, people must initiate, adhere to antiretroviral therapy (ART) and sustain viral suppression. This can be challenging for people who inject drugs (PWID) because of the relapsing-remitting nature of drug use and other social and structural barriers. We characterize changes in viral suppression over time among people who inject drugs living with HIV (PLHIV) in India.

Method: We used cohort data collected from 2017-2018 for a cluster-randomized trial across 8 Indian cities among PLHIV with 0-12 months of prior exposure to ART. We included PWID with viral load data at baseline, 6, and 12-month study visits (n=755). A GEE logistic transition model was fit to assess the probability of viral suppression at each visit and chi-square analysis was used to compare loss of suppression/viremia to those that did not lose viral suppression.

Results: For those suppressed at baseline (n=151), suppression was durable, with an 89% probability of suppression at 6-months and then 98% at 12-months. Among PWID that had viremia at baseline, 33% achieved viral suppression at 6-months. By 12 months, 7% of these individuals experienced rebound vs. 2% of those suppressed at entry. The likelihood of suppression at 12 months was very low (12%) for those who were not suppressed by 6 months (Figure). PWID who were viremic throughout the study (n=355) or lost viral suppression (n=100) were more likely to be younger, male, less educated, homeless, and have current injection drug use.

Conclusion: Many PWID living with HIV in India experienced persistent viremia and viral rebound while on ART. Efforts need to be intensified to engage and support PLHIV to initiate and adhere to treatment to improve individual health and reduce population level transmission.

1226 Community Solutions for Promoting Treatment Continuity and Re-Engaging Children and Adolescents Living with HIV (C/ALHIV) in HIV Treatment and Care in Uganda

Baker Sserwambala (presenting)¹, Emmanuel Tibenderana¹

¹ World Education/Bantwana Initiative, Kampala, Uganda

Introduction: Viral Load Suppression rate (VLS) for C/ALHIV (84.4%) remains below adult VLS (94.6%) due to complex clinical and socio-economic factors. Interruption in treatment, a primary cause of poor adherence and, therefore non-suppression in C/ALHIV, is strongly linked to missed appointments for a range of factors including limited appreciation of the importance of ART adherence by caregivers, non-disclosure of HIV status to C/ALHIV, pill fatigue and other psychosocial issues, and clinic travel costs.

Description: Under the USAID/Integrated Children and Youth Development Activity (ICYD), World Education/Bantwana Initiative improves treatment outcomes for C/ALHIV through delivery of integrated clinic and social protection services in close coordination with clinic partners. Routine C/ALHIV data reviews by clinic staff and ICYD Social Workers (SW) showed high rates of missed appointments among unsuppressed C/ALHIV. In response, ICYD intensified appointment tracking and joint home visits by integrated teams within 24 hours. Safe disclosure supports, treatment literacy, appointment reminders, emergency transport funds and home ART delivery for C/ALHIV fast-tracked re-engagement into care. As a result, between October 2021 and December 2022 4,274 [96%] of C/ALHIV defaulters were returned to treatment and retained in care.

Lesson Learned: Joint household follow up was central for swift treatment re-engagement. Treatment supporters reinforced daily adoption of new information and practices. SWs helped caregivers integrate appointment tracking practices into family routines and to appreciate the links between appointment keeping, adherence, and good health overtime.

Recommendations: ICYD will expand these best practices to sustain >95% treatment retention and use national coordination platforms to advocate with the Ministry of Health and other key stakeholders to scale up these strategies across Uganda.



1235 Scaling up Rapid Linkage to HIV Treatment in Los Angeles County Using a Learning Collaborative Approach

Elise Berrier (presenting)¹, Rebecca Cohen¹, Amelia Gonzalez², Ilish Pérez¹, Sharon Novey², Rama Murali²

¹ Los Angeles County Department of Public Health, Los Angeles, CA, USA

² CAI Global, New York, NY, USA

Introduction: The Los Angeles County Department of Public Health, Division of HIV and STD Programs (DHSP) seeks to increase the number of newly diagnosed and returning to care clients Linked to Care within one week from 54% in 2019 to 85% by 2025. DHSP's Ending the HIV Epidemic (EHE) "Rapid and Ready Program (RRP)," a strategy to enhance HIV services for newly diagnosed HIV clients, includes updates to County policy, guidance for rapid appointments and Rapid ART, and navigation services. DHSP and CAI's Technical Assistance Provider-innovation network (TAP-in) partnered to strengthen and scale RRP using a learning collaborative approach.

Description: The Learning Collaborative, grounded in implementation science (IS), was delivered over 9 months to scale up Rapid ART across 7 clinics. Tools were created to standardize and guide the RRP: 1) key drivers of sustainable rapid linkage and ART, 2) capacity assessment detailing current service provision against key drivers. Learning sessions, action plans, action period webinars, implementation tools (including REDCap for data collection), and monthly coaching comprised the collaborative and supported the clinics' implementation.

Lesson Learned:

1. Addressing system-wide facilitators and barriers to implementation at the health department level – financing, medication procurement, client eligibility, contracts – are key to creating an environment for Rapid ART scale up.
2. Evaluation results showed clinic implementation teams found the learning collaborative helpful to integrating Rapid ART into existing programs, highlighting their synergistic impact on system change and implementation at the clinic level.
3. Preliminary data shows that linkage to care within 7 days increased 15% in participating clinics.

Recommendations: This learning collaborative is a model to address gaps in linkage to HIV treatment using IS frameworks and tools, with a practical application in clinical care settings for adoption and scaling of new services.

1236 HIV Implementation Literature Review Dashboard: Disseminating HIV Implementation Science

Artur Queiroz (presenting)¹, Alithia Zamantakis¹, Maria Pyra¹, Morgan Purrier¹, Dennis Li¹, Brian Mustanski¹

¹ Northwestern University, Chicago, IL, USA

Introduction: Implementation Science (IS) is a focus of the US Ending the HIV Epidemic initiative, but the use of IS findings is still limited due to a lack of guidance, complex taxonomies of concepts, and difficulty navigating available evidence. To make IS findings more accessible to practitioners and researchers, the Implementation Science Coordination Initiative developed the HIV implementation review dashboard.

Description: Based on findings from a systematic review of pre-exposure prophylaxis (PrEP) determinants, our team (1) created a database in Excel; (2) evaluated variables, measures, and data visualizations for inclusion; and (3) developed the dashboard in Power BI. We applied a user-centered design to inform tool development and testing. The review dashboard currently allows users to examine more than 1,900 determinants of PrEP implementation, coded by the Consolidated Framework for Implementation Research (CFIR), from 239 peer-reviewed articles. Its interface comprises two primary screens that organize results at the (1) paper level, with filtering enabled by year, priority population, study participants, setting, and US region, and (2) determinant level, with additional filters by CFIR constructs, valence, and data collection method.

Lesson Learned: Using the dashboard, we conducted a qualitative scoping review of determinants of PrEP implementation in transgender communities. We identified twenty-two articles in the dashboard as transgender related. We point to barriers to implementing PrEP, including lack of intentional dissemination efforts and patient assistance, structural factors (e.g., sex work, racism, and access to gender-affirming health care), and lack of provider training.

Recommendations: This tool helps streamline the process of conducting reviews and decision-making based on high-level evidence to inform current implementation practices and build future research to end the HIV epidemic. In future updates, strategies for PrEP implementation will be included, as well as other HIV-related interventions (e.g., HIV testing).



1237 Does Size Matter? A Randomized Controlled Trial to Assess the Impact of External Diameter on Adherence to 3 Different Intravaginal Rings among 24 US Couples

Irene Bruce (presenting)¹, Marlina Plagianos¹, Jessica Sales², Jessica Atrio³, Shakti Shetty², Caio Sant'Anna Marinho³, Lisa Haddad¹, Barbara Friedland¹

¹ Population Council, New York, NY, USA

² Emory University, Atlanta, GA, USA

³ Montefiore Medical Center/Albert Einstein College of Medicine, New York, NY, USA

Background: Intravaginal rings (IVRs) are being developed as multipurpose prevention technologies (MPTs) for simultaneous HIV and pregnancy prevention. However, no empirical data exists to support the current 54-58mm size as ideal. Understanding the impact of IVR size on adherence is critical for developing a product that can be used correctly and consistently.

Method: We conducted a randomized, open-label, 3-way crossover trial comparing adherence, preference, and acceptability of 3 non-medicated silicone IVRs of differing external diameters: 46mm, 56mm and 66mm. 24 couples in Atlanta, GA and Bronx, NY were randomized to the sequence of IVR use, each used continuously for ~30 days. The primary objective was to compare ring adherence, defined as never having the IVR out of the vagina for >30 minutes in 24h. Women reported occurrence and duration of expulsions and removals via daily text. We summarized the proportion of days the IVR was removed, expelled, or out all day, and the proportion of women adherent to each IVR. We used mixed methods logistic regression models with random intercepts (per participant) to compare the probability of each event happening per day of IVR use, per IVR.

Results: 23/24 couples completed the study. 78%, 75% and 59% of participants were adherent to the IVRs of diameter 46mm, 56mm and 66mm respectively (Table 1). The 46mm and 66mm IVR performed similarly, with more expulsions and 24h outages for the 66mm IVR. When adjusting for size and sequence, women had >15 times the odds of the 66mm IVR being out all day versus the 56mm IVR (15.7, 95% CI: 3.4, 72.6).

Conclusion: External diameter of these non-medicated IVRs had a significant impact on frequency of removal and expulsion. Product developers should prioritize IVRs in the range of 46mm-56mm.

1239 Fostering Engagement in Care and Medication Adherence through a Systematic Quality Improvement Initiative for Continued Enrollment in the AIDS Drug Assistance Program

Kellie Hawkins (presenting)¹, Renee Maciel¹, Olivia Logan², Nora Helmus¹, Marshall Gourley², Brandi Haberl¹, James Sampson¹, Margaret McLees¹, Edward Gardner³

¹ Public Health Institute at Denver Health, Denver, CO, US

² Colorado Health Network, Denver, CO, USA

³ University of Denver, Denver, CO, USA

Introduction: AIDS Drug Assistance Program (ADAP) enrollment contributes to care engagement and medication adherence, however ADAP requires annual reenrollment. Failure to reenroll results in loss of ADAP benefits. We evaluated ADAP enrollment at a large urban safety-net clinic and found ~7% of clients had expired benefits.

Description: We collaborated with Colorado ADAP to obtain a bimonthly list of clients with expired benefits. Medicare beneficiaries were out-reached for assistance with ADAP reenrollment. With limited resources, we focused on Medicare beneficiaries as cost sharing is high and this population can have many barriers to care. To prevent gaps in ADAP benefits due to expiration, we worked with our information technology team to build ADAP renewal reminders for clients active on the electronic medical record (EMR) patient portal, automatically sent out the month prior to scheduled expiration. We additionally developed a video accessed through a QR code that walks clients through the ADAP application, question by question (Figure1). This resource was advertised in our clinical space and made available on our institution's YouTube channel.

Lesson Learned: We evaluated progress by tracking the number of Medicare enrolled clients with expired ADAP bimonthly; when we began the project July 2020 there were 44 patients requiring outreach with expired ADAP and in January 2023 there were 3 clients on the list (Figure2). To date the ADAP YouTube video has amassed 644 views. The automated EMR reenrollment reminders have been valuable for promoting client empowerment and making the initiative sustainable over time.

Recommendations: Future steps will focus on sustainability and keeping materials up to date. We would like to promote inclusivity and equity by translating the ADAP video into Spanish. For future evaluation, we would like to define measures that will help us more directly measure the impact of this intervention on engagement and adherence for all clients.



1245 Implementation Strategies and Determinants among Prevention-Focused Ending the HIV Epidemic Projects

Morgan Purrier (presenting)¹, Artur Queiroz¹, Maria Pyra¹, Nanette Benbow¹, Brian Mustanski¹

¹ Northwestern University, Chicago, IL, USA

Background: Since 2019, over 200 Ending the HIV Epidemic projects have been funded in the U.S. as part of the EHE plan. These 1–2-year projects focus on the implementation of interventions, in collaboration with community partners, around at least one pillar: Prevent, Treat, Diagnose or Respond. We examined determinants and related implementation strategies proposed by projects with a prevention focus to identify themes and potential gaps.

Method: We coded the implementation research logic models (IRLMs) proposed by 50 projects with a prevention-focus. The Consolidated Framework for Implementation Research (CFIR) was used for determinants and both Bunger et al and the ERIC (Expert Recommendations for Implementing Change) categories were used for implementation strategies. Projects that used other frameworks or did not differentiate between determinants as barriers and facilitators were excluded. We then created heatmaps of the proportion of projects with each barrier proposing each strategy.

Results: The most common barriers were intervention complexity, individual knowledge, and external policies. Determinants were less often indicated as facilitators, but the most common included intervention (PrEP) evidence and relative advantage, as well as inner setting culture and process engagement. Strategies around consumer engagement, an area of much PrEP work, were the most common response across all determinants. Developing stakeholders and evaluative strategies were common strategies among projects with intervention or outer setting barriers. Fewer strategies were proposed for projects with inner setting or individual barriers. Few projects proposed strategies around financial solutions, changing infrastructure, or policy work.

Conclusion: Future work will examine subsets of projects based around key populations or intervention type (i.e., PrEP social marketing, behavioral, telemedicine). Our analysis demonstrates the usefulness of IRLMs and the advantages of standard frameworks across projects. This work also highlights that important strategies needed to impact structural-level change may need more support and development to increase their use around HIV prevention.

1252 An Economic Analysis of Factors Associated with Pre-Exposure Prophylaxis Use for HIV Prevention in Women

Dion Allen (presenting)¹, Ioana Popovici¹, Silvia Rabionet¹

¹ Nova Southeastern University, Davie, FL, USA

Background: Pre-exposure prophylaxis (PrEP) is one major biomedical tool used in ending the HIV epidemic. Despite comparable risk of HIV as men, women account for only 5% of PrEP users annually. The objective of this study was to determine factors influencing PrEP-to-Need ratio (PNR) for women across the United States using data dating back to 2012, when PrEP was first approved. We hypothesized that women living in states that expanded Medicaid, and with greater availability of mental health and substance use disorder treatment centers, and family planning clinics are more likely to seek PrEP treatment due to increased access.

Method: A difference-in-differences regression model was used to examine the effect of ACA-Medicaid expansions, the number of mental health and substance use disorder clinics, and the number of family planning clinics on PNR for men and women between 2012 and 2021.

Results: Average PNR was higher in states that expanded Medicaid, and men consistently had a higher PNR than women across all states. The difference-in-differences model revealed that Medicaid expansion is associated with a 1.8 increase in PNR for both men and women, an approximate 40% increase. Expansion is associated with a 2.130 increase in PNR for men, an approximate 43.5%; and only accounted for 17.5% increase in the PNR for women, a .359 increase.

Conclusion: Access to insurance through Medicaid serves a large population of individuals who would otherwise be unable to afford PrEP medication for HIV prevention. However, women at risk of HIV are still vulnerable due to the gender disparity in PrEP use. Targeted interventions for PrEP use can work along with large-scale interventions, like Medicaid expansion, to better reach women and achieve health equity for those who may be at risk of HIV.



1253 Men Interrupted: High Rates of Treatment Interruptions among Men who have Sex with Men (MSM) Necessitate Tailored Approaches

Dorian Gule (presenting)¹, Lisa Bouwer¹, David Nel¹, Marina Rifkin¹

¹ OUT LGBT Well-Being, Pretoria, South Africa

Introduction: With funding from USAID/PEPFAR under the FHI EPIC program, OUT established the Engage Men's Health (EMH) program in the City of Johannesburg (COJ), Buffalo City and Gqeberha in 2019. The program includes a clinic in COJ and mobile services in all three regions. To date, EMH has provided HTS to 48,832 MSM, initiated 2,889 on ART and 12,350 on PrEP, making it the largest African HIV program for MSM.

Description: As of 1 October 2021, 830 MSM were retained in care in the COJ metro, of whom 91.35% were virally suppressed. Unfortunately, treatment interruptions were common among those considered retained in care. In a subset of 510 MSM clients on ART on 1 October 2021 and retained as of 30 September 2022, 57% experienced at least one treatment interruption; defined as being without medication for more than 28 days. Treatment interruptions ranged from 28 to 339 days (median was 77 days).

Lesson Learned: Neither client age, disclosed sexual identity nor housing insecurity were predictors of treatment interruptions. Of those with VL results, 92.5% were virally suppressed while only 88.4% of those with treatment interruptions were. In addition to pill fatigue, drug use and socio-economic barriers, reasons for treatment interruptions also included migration, incarceration, rehab, accessing treatment elsewhere and not notifying EMH.

Recommendations: Program staff need to be aware of external factors affecting KP clients' adherence to ART due to their vulnerability. Open and non-judgmental adherence counselling should be strengthened. Tailored 'welcome back' messaging should be developed on how to return to treatment. Prevention of treatment interruption is key to preventing treatment failure, which can be expensive and onerous to clients. EMH will be collecting reasons for all clients' restarting onto treatment to ensure tailored messaging aligns with identified barriers.

1256 Analyzing Policy Gaps in Optimal Pediatric HIV Treatment Regimens: A Global Overview

Amanda Banda (presenting)¹, Sharonann Lynch¹, Varsha Srivatsan¹, Agrata Sharma¹, Yu-Wei Chen¹, Varsha Srivatsan¹

¹ O'Neill Institute for Global Health and National Law, Washington, DC, USA

Background: Despite the scientific evidence and WHO recommendations supporting the use of dolutegravir (DTG)-based treatment regimens as first-line therapy for pediatric HIV, many countries have been slow to adopt these guidelines in their national policies, leading to limited access to optimal treatment and poor health outcomes among young children. Monitoring HIV policies can help identify barriers for vulnerable groups such as the pediatric population. Here, we examine the countries that have aligned their pediatric treatment guidelines with the WHO recommendations.

Methodology: Georgetown University's HIV Policy Lab (HIVPL), a collaboration with UNAIDS and others, tracks the adoption status of 33 globally recommended laws and policies for 194 countries. In the HIVPL database, countries that have updated their national policy for pediatric antiretroviral therapy to include the use of the WHO-recommended DTG-based regimen or a more effective bicitgravir-based regimen for all children weighing more than 3 kilograms or older than 4 weeks, are considered to have adopted the policy.

Results: The 2022 findings indicate that 78 countries have not updated their guidelines to the optimal DTG-based regimens for treating HIV in children. Among these countries, 53 countries' treatment guidelines include DTG for adults, but not for children. Nine out of the 10 countries with the lowest proportion of people on antiretroviral therapy do not include DTG-based regimens as the preferred regimen for children. In addition, out of the 10 countries with the highest number of HIV+ children, only 4 have included DTG-based regimens as the preferred regimen for children.

Conclusion: To effectively tackle the global HIV epidemic, it is imperative that science and policy are closely intertwined. Closing the policy gaps in the treatment of pediatric HIV is crucial to ensure the availability of optimal treatment regimens and, thereby, improving the health outcomes of children living with HIV.



1257 Breaking Down Barriers to Pre-Exposure Prophylaxis: Global Analysis of Eligibility Criteria for HIV PrEP

Amanda Banda (presenting)¹, Varsha Srivatsan¹, Agrata Sharma¹, Yu-Wei Chen¹, Sharonann Lynch¹

¹ O'Neill Institute for National and Global Health Law, Washington, DC, USA

Background: Pre-exposure prophylaxis (PrEP) lowers the risk of HIV acquisition. Since 2016, WHO strongly recommends PrEP for HIV prevention for all people at substantial risk of HIV infection. Despite its proven efficacy, policy gaps continue to curtail access to PrEP. Therefore, mapping and analyzing PrEP policies across countries and regions help identify barriers to bringing PrEP to scale. Our study seeks to provide an analysis of country-level eligibility criteria to access PrEP.

Method: Georgetown University's HIV Policy Lab (HIVPL), a collaborative project of academia, civil society, and multilateral organizations, analyzes the global HIV policy environment for 194 countries. Here, we assess if provisions for PrEP are made for anyone who requests PrEP in the national PrEP guidelines. Further, we examine if provisions for PrEP have been made for at least three key populations: men who have sex with men, sex workers, and serodiscordant couples.

Result: Our preliminary analysis of 138 countries indicates that while 90% (N=117) of the countries have granted regulatory approval to at least one PrEP technology, only 59% (N=107) of the countries provide PrEP to anyone who considers themselves high risk for HIV acquisition as a matter of national policy. For key populations, 89% (N=109) of the countries provide PrEP access to men who have sex with men as part of their national policy, while 69% (N=107) and 84% (N=106) of the countries do so for sex workers and serodiscordant couples, respectively.

Conclusion: Inclusive eligibility criteria in alignment with WHO recommendations is critical to ensure the successful implementation and widespread adoption of PrEP as a key preventive biomedical intervention.

1258 Facilitating Adolescent Access and Adherence to HIV Treatment through Age of Consent Policy Reform

Amanda Banda (presenting)¹, Varsha Srivatsan¹, Agrata Sharma¹, Yu-Wei Chen¹, Sharonann Lynch¹

¹ O'Neill Institute for National and Global Health Law, Washington, DC, USA

Background: National age of consent policies require minors to receive permission from a parent or guardian before accessing healthcare services. According to WHO, eliminating parental consent for adolescents starting antiretroviral therapy (ART) can improve their ability to make informed choices about their health and have access to timely treatment without encountering undue barriers. Here, we evaluate the national age of consent policies for HIV treatment across 194 countries.

Method: Georgetown University's HIV Policy Lab, in collaboration with UNAIDS and others, tracks the adoption of 33 globally recommended HIV laws and policies in 194 countries. The database evaluates whether adolescents aged 12 years and above can start ART without requiring parental consent, in alignment with the globally recommended policy, or not. We aim to map and analyze global adherence and identify exceptions or inconsistencies in its uptake at the national level.

Results: According to preliminary analysis, 51 countries have policies mandating parental consent for adolescents to start ART. Further, 20 countries have created policy exceptions for adolescents starting ART. These exceptions include, among others, demonstrated maturity and emancipated adolescents. Nine countries have conflicting policies that mandate parental consent for adolescents to receive ARVs while not requiring the same for adolescents seeking HIV testing. Of the 10 countries with the highest number of people living with HIV, only two countries (Tanzania and Uganda) do not have parental consent policies limiting adolescents' access to HIV treatment.

Conclusion: The age of consent laws to access HIV treatment varies widely among countries. Reforming these policies to be in line with WHO recommendations can help facilitate better access and adherence to HIV treatment for adolescents.



1259 Limited Receipt of Annual Routine Preventive Care Services among Medicaid Enrollees Living with HIV in the US

Jessica Kiernan (presenting)¹, Rose Bono¹, Deo Mujwara¹, Portia Pan¹, Bassam Dahman¹, April Kimmel¹

¹ Virginia Commonwealth University, Richmond, VA, USA

Background: People living with HIV are at higher risk of certain preventable conditions and annual routine preventive care services are recommended. We examined receipt of 5 annual routine preventive care services recommended by the HIV Medical Association of the Infectious Disease Society of America among Medicaid enrollees in the US South.

Method: We used person-level administrative claims (Medicaid Analytic eXtract, 2008-2012) and county characteristics (AIDSVu, 2015) for 16 Southern states plus District of Columbia. We used generalized estimating equations, including state and year fixed effects, to examine receipt of services 1) lipid 2) glucose 3) syphilis and 4) cervical cancer (women only) screenings and 5) influenza vaccination. We estimated the probability of service receipt, holding covariates constant at mean (or median) values, and for subgroups requiring more general or HIV-specific care, enrollees <45 years, Managed Care enrollees, and, separately, for Non-Hispanic Black and Non-Hispanic White enrollees.

Results: The sample included 57,695 adult Medicaid enrollees living with HIV (187,295 enrollee-years). Enrollees received lipid, syphilis, and cervical cancer screenings and influenza vaccination in <50% and glucose screening in 71.7% of total enrollment-years. Enrollees were more likely to be 35-54 years, female, Non-Hispanic Black, and urban. Estimated probability of annual routine preventive care service receipt was low (<0.50) for all services except glucose screening (estimated probability 0.81; 95% confidence interval 0.78, 0.83). The findings were similar for all subgroups, including Non-Hispanic Black or Non-Hispanic White enrollees.

Conclusion: There is consistent, suboptimal receipt of routine preventive care services among people living with HIV representing missed opportunities for reducing chronic disease burden in this population. Receipt of routine preventive care services should be prioritized as part of quality clinical HIV management.

1263 Primary Care Providers' Perceived Implementation Barriers for Biomedical HIV Prevention Strategies in Puerto Rico

Carlos Rodríguez-Díaz (presenting)¹, Ilia Otero-Cruz¹, Edda Santiago Rodríguez¹, Souhail Malavé Rivera¹, Solaritza Rivera León¹, Daisy Gely Rodríguez¹

¹ University of Puerto Rico-Medical Sciences Campus, San Juan, Puerto Rico

Background: Biomedical HIV prevention strategies are essential tools for reducing HIV infections. However, implementing these strategies, including pre-exposure prophylaxis (PrEP), has not been successful everywhere needed. Puerto Rico (PR) has one of the highest HIV incidents rates and the lowest PrEP uptake compared to other US jurisdictions. In this study, we used the Consolidated Framework for Implementation Research to identify the barriers to implementing biomedical HIV prevention strategies in PR.

Method: A cross-sectional online survey was used to collect data from June to August 2021 among n=225 primary care providers in PR. Data were collected in Spanish, and the survey included culturally adapted measures of barriers to recommending PrEP to patients and attitudes towards PrEP. Descriptive and bivariate analyses were conducted to identify the main challenges to implementing biomedical HIV prevention strategies (i.e., PrEP, PEP).

Results: The mean age of participants was 35yo; most were women (69%) and had been working in HIV prevention for an average of 11 years. Represented among participants were physicians (19%), case managers (17%), nurses (11%), among others. Most (94%) reported knowing about PrEP before completing the survey. The main perceived barriers to recommending PrEP were patients lacking insurance coverage for the cost of care (83%) and not knowing enough about PrEP (59%). These barriers did not vary across the sample. Most of the participants (68%) evidenced negative attitudes toward PrEP. After controlling by other confounding variables, negative attitudes towards PrEP were more frequently reported by men and those with high religiosity levels.

Conclusion: Addressing the main barriers to implementing biomedical HIV prevention strategies requires structural interventions. These should facilitate access to preventive care, including improving the financial support strategies to pay for services, enhancing local resources, and training primary healthcare providers to reduce negative attitudes and stigma.



1265 Health Department-Based Intensive Case Management for Pregnant People Living with HIV as a Key Strategy to End the HIV Epidemic in Los Angeles County

Azita Nagdhi (presenting)¹, Megan Foley (presenting)¹, Michael Haymer¹, Rebecca Cohen¹, Kim Bui¹, Rosario Carrera¹

¹ Los Angeles County Department of Public Health, Los Angeles, CA, USA

Introduction: Pregnant people living with HIV (PPLWH) face many barriers in accessing health services to achieve viral suppression and reduce the risk of HIV transmission to their exposed infants. Recent data highlighted trends in perinatal HIV transmission in Los Angeles County (LAC) with five infants acquiring HIV perinatally since 2020. To address this rise, the LAC Department of Public Health's Division of HIV and STD Programs modified the existing Linkage and Reengagement Program (LRP) to provide intensive case management to PPLWH.

Description: The LRP team is made up of clinical social workers and peer navigators who receive referrals from community providers and through a data-to-care report identifying new positive cases of women of reproductive age. They do extensive case finding and provide client-centered wraparound services including linkage to perinatal HIV specialty centers, accompaniment at appointments, transportation, adherence counseling, supportive housing referrals, incentives, and education. Weekly case conferences with health department physicians and epidemiology staff and a bi-monthly division-wide coordination meeting assists with addressing complex case needs and identified system-level barriers.

Lesson Learned: Of the 143 HIV-exposed infants born in LAC between 2021 and 2022, 25% (36) were served by the LRP program. LRP clients represented a highly marginalized and vulnerable group of PPLWH with 35% receiving late or no prenatal care, 62% with STD co-infection, 48% reporting substance use during pregnancy, and 43% experiencing or reporting a history of homelessness.

Recommendations: Our experience with LRP suggests that substantial effort is needed to ensure high risk PPLWH achieve viral suppression to prevent the transmission of HIV to their infants. Each LRP client requires an individualized treatment plan that addresses comorbidities, housing needs, substance use, HIV-related stigma, and coordination with HIV specialty centers to optimize health outcomes.

1278 Optimal Strategies to Improve Pre-Exposure Prophylaxis Uptake among Youth at Risk for HIV: A Randomized Controlled Trial (ATN 149)

Dallas Swendeman (presenting)¹, Mary Jane Rotheram-Borus¹, Maria Isabel Fernandez², Elizabeth Mayfield Arnold³, Scott Comulada¹

¹ UCLA, Los Angeles, CA, USA

² Nova Southeastern University, Fort Lauderdale, FL, USA

³ University of Kentucky, Louisville, KY, USA

Background: Technology mediated messaging, peer support, and coaching for youth HIV prevention were tested in randomized controlled trial in the Adolescent HIV Medicine Trials Network.

Methods: Gay, bisexual, and other MSM and transgender and gender diverse (TGD) youth aged 12-24 years were recruited from 2017-2019 from 13 community agencies, social media and peer referrals in Los Angeles and New Orleans and assessed at 4-month intervals over 24-months. Youth (n=895) were randomized to interventions designed to support HIV prevention options (PrEP, PEP, condom use, partner reduction) while addressing syndemic factors or competing needs (housing and economic insecurity, mental health, substance use, STIs) in a four-arm factorial design: 1) automated text-messaging and monitoring (AMMI); 2) AMMI plus online peer support (AMMI+PS); 3) AMMI plus strengths-based tele-health coaching by paraprofessionals (AMMI+C); or 4) AMMI plus peer support and coaching (AMMI+PS+C). Intent-to-treat analyses used Bayesian generalized linear modeling.

Results: Participants were diverse in race/ethnicity (41% Black/African American; 33% Latinx) and other factors. At baseline, 66% reported past 12-month condomless anal sex. At baseline, 11% used PrEP currently, increasing at 4-months to 15% across arms, then continuing increase in AMMI+PS+C (OR 2.35; 95% CI:1.27-4.39 vs. AMMI control) approaching 25% by 12 months and sustaining over 24 months. There were no intervention effects on condom use, PEP, or partner numbers (Figure 1).

Conclusion: Results are consistent with hypothesized synergistic intervention effects of core, evidence-based functions of informational and motivational messaging, peer social norming and support, and goal-focused problem-solving coaching addressing syndemic factors and hierarchies of needs. This package may be flexibly scaled via technology platforms and frontline HIV prevention workers or direct-to-youth strategies.



1280 Examining the Effects of an Urban Gardens and Peer Nutritional Counseling Intervention on Alcohol Consumption and Tobacco Use among PLHIV in the Dominican Republic

Alane Celeste-Villalvir (presenting)¹, Lila Sheira², Bing Han³, Gabriela Armenta⁴, Amarilis Then-Paulino⁵, Nozipho Becker⁶, Gipsy Jimenez-Paulino⁵, Kathryn Derose⁷, Kartika Palar²

¹ University of Massachusetts Amherst, Amherst, MA, USA

² University of California, San Francisco, CA, USA

³ Kaiser Permanente, Oakland, CA, USA

⁴ Pardee RAND Graduate School, Santa Monica, CA, USA

⁵ Universidad Autonoma de Santo Domingo, Dominican Republic

⁶ Colorado State University, Fort Collins, CO, USA

⁷ University of Massachusetts Amherst, Amherst, MA, USA

Background: Alcohol consumption and tobacco use are associated with poor HIV-related outcomes and food insecurity is associated with substance use among some PLHIV. Few studies have explored how strategies to improve food security may also reduce smoking and alcohol use and none in Latin America and the Caribbean. Here we examine whether a pilot urban gardens and peer nutritional counseling intervention with PLHIV experiencing food insecurity in the Dominican Republic affected participants' alcohol consumption and tobacco use.

Method: This study uses data from a pilot cluster randomized controlled trial involving 115 participants (52 intervention, 63 control) from two HIV clinics. The 12-month intervention included gardening training and follow-up from agronomists to establish a home and/or community garden; 3-4 peer nutritional counseling sessions; and a garden-based nutrition and cooking workshop. Participants completed interviewer-administered questionnaires at baseline and 6- and 12-months, which included standard measures of alcohol and tobacco use (e.g., AUDIT-C, DHS questions regarding current smoking status and smoking intensity). Effects were analyzed using longitudinal multivariate regression accounting for serial cluster correlation.

Results: The intervention was associated with reduced smoking intensity (packs per day) by 0.2 packs/day among current smokers at 6-months ($p=0.064$; 95% CI: -0.506, -0.014) and 12-months ($p=0.090$; 95% CI: -0.482, -0.035). At 6-months, the intervention was also associated with a decrease in alcohol consumption, including a 0.6-point decrease in the AUDIT score ($p=0.155$; 95% CI: -1.453, 0.230) and 11 percentage point reduction in the prevalence of hazardous drinking ($p=0.146$; 95% CI: -0.265, -0.039).

Conclusion: A pilot urban gardens and peer nutritional counseling intervention for PLHIV was associated with reductions in alcohol consumption and tobacco smoking. Larger trials are needed to examine if such effects are sustained across multiple settings and timeframes.

1295 Treatment Continuity: The Cornerstone of HIV Epidemic Control in Resource Constrained Settings

Yussif Ahmed Abdul Rahman¹, Abdul-Wahab Inusah¹, Thomas Azugnue Ayoumah¹, David Nartey¹, Michael Kwashie¹, Egbert Bruce¹, Mark Kowalski¹, Anthony Ashinyoh², Stephen Ayisi Addo², Henry Nagai¹

¹ JSI Research and Training Institute, Inc., Takoradi, Western Region, Ghana

² GHS, Accra, Ghana

Background: HIV treatment continuity in Ghana is a significant concern despite increased access to antiretroviral therapy (ART) in recent years. Treatment retention is estimated around 70% within 12 months of initiation leading to poor treatment outcomes. Structural and sociocultural factors are known contributors to poor treatment continuity. This study investigated individual-level factors associated with HIV treatment continuity in the three regions of Ghana.

Method: We used HIV treatment data through November 2022. A total of 33,391 clients were extracted from 98 ART sites and 31,198 were included in the final analysis. Only clients' most recent visits were analyzed. Variables studied were: age, sex, healthcare facility, client type (adult or child), date of HIV treatment initiation, treatment regimen, and duration of treatment. The outcome variable was treatment continuity. A multiple logistic regression model was used to analyze the data.

Results: Of the study population, the mean age was 39.4[± 14.0] years. Total cases with active HIV treatment continuity was 59%, with females slightly higher than males (60% and 56%, respectively). Factors positively associated with HIV treatment continuity were: multi-month dispensary (MMD) (AoR [4.7:95% (4.4-4.90)]), being on LPV/r-Based regimen (AoR [9.3:95% (2.4-35.3)] or DTG-Based regimen (AoR [2.9:95% (1.5-1.7)]), and increased in age(in years) (AoR [1.0:95% (1.0-1.0)]). Conversely, males (AoR [0.7:95% (0.7-0.8)]) and EFV-Based regimen clients (AoR [0.1:95% (0.0-0.2)]) were less likely to be active.

Conclusion: We found that HIV treatment continuity is positively associated with MMD, efficacious regimen (LPV/r-based, or DTG-based), and increasing age. On the other hand, males and EFV-based treatment clients were more likely to interrupt treatment. These findings can be used to inform strategies for improving HIV treatment retention in resource-constrained settings.



1298 Treatment Continuity: The Cornerstone of HIV Epidemic Control in Resource-Constrained Settings

Yussif Ahmed Abdul Rahman (presenting)¹, David Nartey¹, Abdul-Wahab Inusah¹, Henry Nagai¹

¹ JSI Research and Training Institute, Inc, Takoradi, Ghana

Background: This study examined factors associated with HIV treatment continuity in young adults (ages 15-24) living with HIV in Western Ghana.

Method: A retrospective analysis of secondary data with 2,589 young adults (ages 15-24) living with HIV in the Western Region of Ghana was conducted. On January 15, 2023, data was extracted from the national HIV database (E-tracker), using clients' most recent facility visit dates. The outcome variable was HIV treatment continuity, which was defined as the ability of young adults living with HIV to remain in care and continue taking their medication as prescribed. We analyzed the data using Pearson's Chi-square and a stepwise multiple-logistic regression.

Results: Of the 2,589 young adults recruited for the study, 2,041 (79%) were females with a mean age of 21yrs. In this study population, 1,099 (43%) were currently on HIV treatment, of whom 78% were initiated on treatment at a hospital. This included 861 (78%) females and 238 males (22%), with no statistical significance between sex and young adults' treatment continuity. However, the association between being on multi-month dispensing (MMD) and treatment continuity was statistically significant ($p < 0.001$). Young adults on EFV-based treatment were 0.01 times less likely to be on treatment compared to those on DTG-based treatment (OR:0.01, CI=0.001-0.05, $p < 0.001$). MMD clients were 3.4 times more likely to be on treatment compared to those not on MMD (OR=3.4, CI=2.8-4.0, $p < 0.001$).

Conclusion: The study suggests that the type of treatment regimen, particularly MMD, is an important factor in determining treatment continuity for young adults living with HIV in Western Ghana. This finding could inform interventions to improve treatment continuity in this population.

1302 A Point-of-Care Urine Tenofovir Adherence Feedback Intervention Improved PrEP Adherence among Kenyan Women

Matthew Spinelli (presenting)¹, Kenneth Ngunjiri², Charlene Biwott³, Stephen Gakuo³, Irene Njeru³, Catherine Kiptinness³, Phelix Okello³, Purba Chatterjee¹, Guohong Wang⁴, Vallery Ogello², Peter Mogere², Hideaki Okochi¹, David Glidden¹, Deepalika Chakravarty¹, Nelly Mugo^{1,5}, Monica Gandhi¹

¹ University of California, San Francisco, San Francisco, CA, USA

² Jomo Kenya Medical Research Institute, Nairobi, Kenya

³ Kenyatta University of Agriculture and Technology, Nairobi, Juja, Kenya

⁴ Abbott, Chicago, IL, USA

⁵ University of Washington, Seattle, Washington, USA

Background: Women in sub-Saharan Africa, particularly those not in HIV sero-discordant partnerships, experience adherence challenges to PrEP. A prior drug-level feedback intervention in this population was ineffective, attributed in part to >1 month-long delays in reporting dried blood spot (DBS) adherence data to participants. However, recently developed point-of-care (POC) urine tenofovir testing permits real-time adherence feedback. We examined the preliminary impact of POC adherence feedback on detectability of urine tenofovir in a pilot randomized controlled trial at a PrEP clinic in Thika, Kenya.

Method: Between March, 2021 and January, 2022, women who had used PrEP for approximately 3 months were randomized 1:1 to the POC-enhanced adherence intervention or standard-of-care counseling (SOC). The presence of tenofovir in urine was measured in all participants at all visits-baseline and then quarterly for 12 months – but results were only provided to the participant and the clinician in the intervention arm.

Results: Overall, 100 women were enrolled, with 51 randomized to the SOC and 49 to the intervention arms. At baseline, median age was 34.5 years (IQR: 25.9-38.6), 42% reported engaging in transactional sex in the prior month and 80% reported taking PrEP daily in the prior month. At baseline, urine tenofovir was detectable in 67% of the intervention and 71% of the SOC arm, 72% and 56% at month-3 ($p = 0.07$), 74% and 51% at month-6 ($p = 0.01$), 64% and 58% at month-9 ($p = 0.13$), and 72% and 45% at month-12, respectively ($p = 0.001$; See Figure).

Conclusion: A real-time POC adherence feedback intervention led to improved PrEP adherence at month-12 among Kenyan women as measured by urine tenofovir levels. Future analyses will examine the impact of the intervention on long-term adherence measured via hair levels. POC adherence feedback has the potential to enhance the efficacy and delivery of oral PrEP among adherence-challenged populations critical to ending the HIV epidemic.



1308 Correlates of Adherence to Oral Pre-Exposure Prophylaxis (PrEP) and the Dapivirine Vaginal Ring among Adolescent Girls and Young Women (AGYW) Participating in the MTN-034/REACH Trial

Kenneth Ngunjiri (presenting)¹, Erica Browne², Krishnaveni Reddy³, Barbara Friedland⁴, Ariane van der Straten⁵, Thesla Palanee-Phillips³, Rita Nakalega⁶, Hadijah Nabunya⁶, Bekezela Siziba⁷, Lydia Soto-Torres⁸, Gonasagie Nair⁹, Morgan Garcia¹⁰, Connie Celum¹¹, Sarah Roberts²

¹ Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

² RTI International, San Francisco, CA, USA

³ Wits RHI, Johannesburg, South Africa

⁴ Population Council, New York, NY, USA

⁵ Ariane van der Straten, RTI International, San Francisco, CA, USA

⁶ Makerere University - Johns Hopkins University Research Collaboration, Kampala, Uganda

⁷ University of Zimbabwe, Harare, Zimbabwe

⁸ U.S. National Institutes of Health, Bethesda, MD, USA

⁹ Stellenbosch University, Stellenbosch, South Africa

¹⁰ FHI 360, Durham, NC, USA

¹¹ University of Washington, Seattle, WA, USA

Background: Adolescent girls and young women (AGYW) in sub-Saharan Africa have high risk of HIV acquisition. Oral pre-exposure prophylaxis (PrEP) and the monthly dapivirine vaginal ring (ring) are effective HIV prevention options, however many AGYW face challenges using them consistently. We evaluated correlates of adherence to PrEP and the ring among AGYW in the MTN-034/REACH study.

Method: We enrolled 247 AGYW aged 16-21 years in South Africa, Uganda and Zimbabwe (ClinicalTrials.gov: NCT03074786). In a crossover design, participants were randomized to the order of PrEP or ring use for 6 months each, followed by a 6-month choice period. We assessed potential adherence correlates – individual, interpersonal, community, study, and product-related factors – quarterly via self-report. We measured biomarkers of adherence monthly; high adherence was ≥ 4 mg dapivirine released from returned rings or intracellular tenofovir diphosphate levels ≥ 700 fmol/punch from DBS. We tested associations between correlates and high adherence using generalized estimating equations.

Results: The average probability of high adherence during the crossover period was 0.60 for the ring and 0.57 for PrEP ($p=0.30$). High adherence to PrEP was significantly associated with having an older primary partner ($p=0.04$), not having exchanged sex in the past 3 months ($p=0.02$), and rating PrEP as highly acceptable ($p=0.003$). High ring adherence was significantly associated with unstable housing ($p=0.01$), disclosing ring use to a male family member ($p=0.01$), and noting a social benefit from study participation ($p=0.03$). All associations were moderate, corresponding to about 6% -10% difference in the proportion with high adherence. Adherence was not associated with sexual behavior and other factors.

Conclusion: In our multinational study, correlates of adherence among African AGYW differed for PrEP and the ring, highlighting the benefit of offering multiple PrEP options. However, all associations were modest in scale, suggesting that additional research is needed to identify strong drivers of consistent PrEP or ring use.

1311 ART Treatment is No Longer a Source of Worry: Insights from Malawi and Zimbabwe

Mercy Murire (presenting)¹, Malvern Munjoma², Philip Mkandawire³, Tom Ngaragari¹, Jabulani Mavudze², Noah Tarubekera¹, Nina Hasen¹

¹ Population Services International, Johannesburg, South Africa

² Population Solutions for Health, Harare, Zimbabwe

³ PSI Malawi, Lilongwe, Malawi

Background: HIV information about the benefits of ART treatment particularly on the reduction of onward transmission of HIV is limited. We implemented a strategic communication campaign, I CAN. The campaign identified people living with HIV (PLHIV) who were struggling on treatment, initiate and support them throughout their treatment journey using ART champions and strategic campaign messages on media channels. The program was conducted in 9 communities in Zimbabwe and Malawi.

Method: We used a mixed study design of quantitative surveys and qualitative in-depth interviews for baseline and endline between April 2020 and September 2022. Purposive sampling was used to recruit participants in the community who were apathetic about life through segmentation selection. Participants were aged 18-35 and included PLHIV, potential sexual partners of PLHIV, PLHIV not on ART treatment, ART champions and Health care providers (HCPs). Survey data were analysed in Stata 17. Qualitative data were thematically analysed using Dedoose. Ethical approval was sought and granted.

Results: Among survey participants ($n=3044$), 52% were from Zimbabwe ($n=1582$) and 48% from Malawi ($n=1462$). Participants exposed to the I CAN campaign reported a significant increase in treatment as prevention knowledge (67,8%; 74,9,2% [$p<0.01$]) in Zimbabwe and Malawi respectively. Qualitative findings ($n=78$) evidenced how people exposed to the I CAN campaign normalized taking ART through understanding the benefits of virological suppression when taking ART.

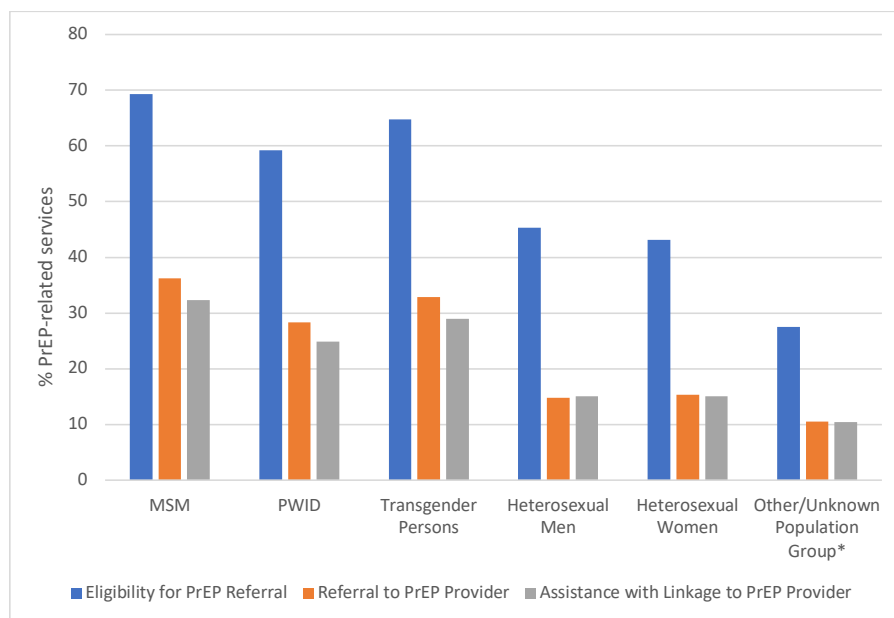
Conclusion: The I CAN campaign increased knowledge of viral suppression benefits such as reduction of onward transmission of HIV and ART treatment adherence leading to normalizing HIV. We recommend lessons from the I CAN campaign that can be adapted in other contexts.



FIGURES

ORAL ABSTRACT 1041

Figure. Eligibility for PrEP Referral, Referral to PrEP Provider, and Assistance with Linkage to PrEP Provider among Persons Testing Negative for HIV via CDC-Funded HIV Testing in Non-Healthcare Settings, United States, District of Columbia, Puerto Rico, and U.S. Virgin Islands, 2019-2021



*Other/Unknown Population Group includes women who have sex with women, sex with transgender persons, no sexual contact or no injection drug use, or unknown/unreported.

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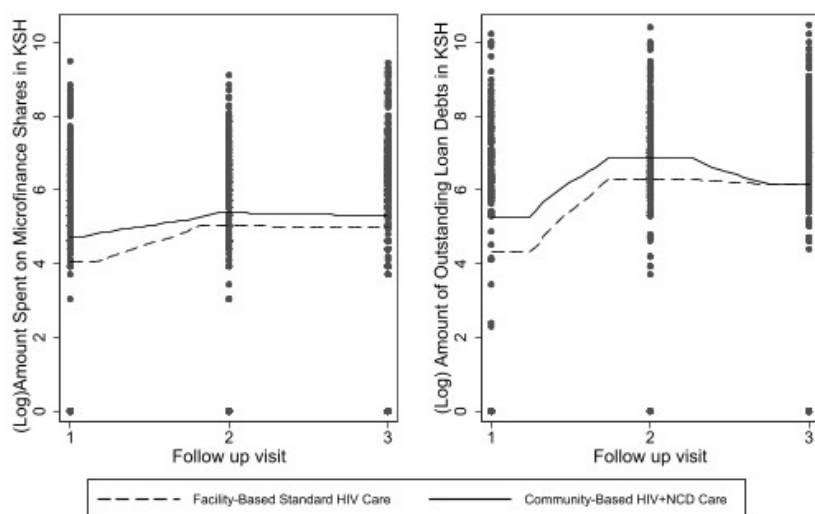


Figure. 9-month associations between differentiated HIV care and microfinance activity

The figure presents raw data and local polynomial regression lines for the log of microfinance shares and outstanding debts at follow up study visits 1 (3 months), 2 (6 months), and 3 (9 months). The dots represent the raw data for n=739 in western Kenya. KSH: Kenyan Shillings



FIGURES

ORAL ABSTRACT 1086

Figure 1. Percent of Participants Preferring LA-PrEP over DO-PrEP among Current DO-PrEP Users by Adherence

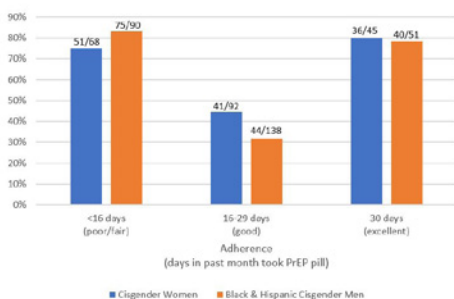


Figure 2. Percent of Participants Preferring LA-PrEP over DO-PrEP among Current DO-PrEP Users by Persistence

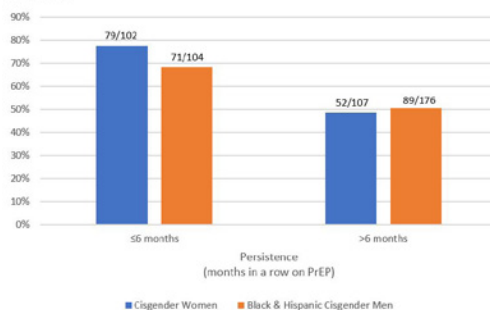


Figure 3. Reasons for Interest in LA-PrEP among DO-PrEP Users by Monthly Adherence

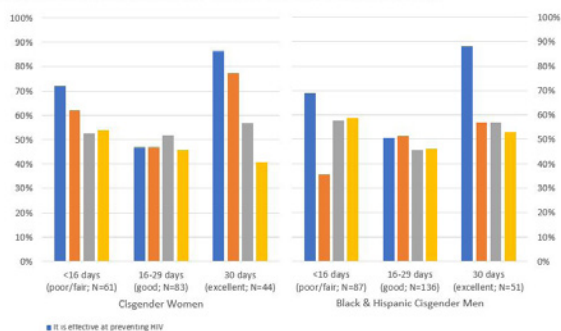
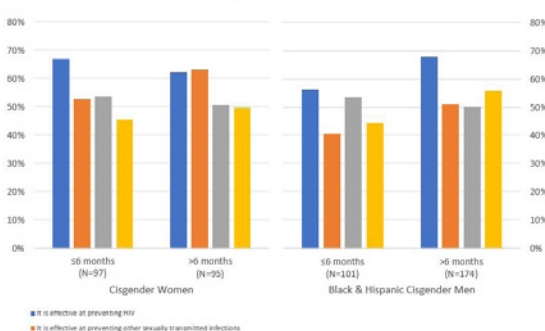
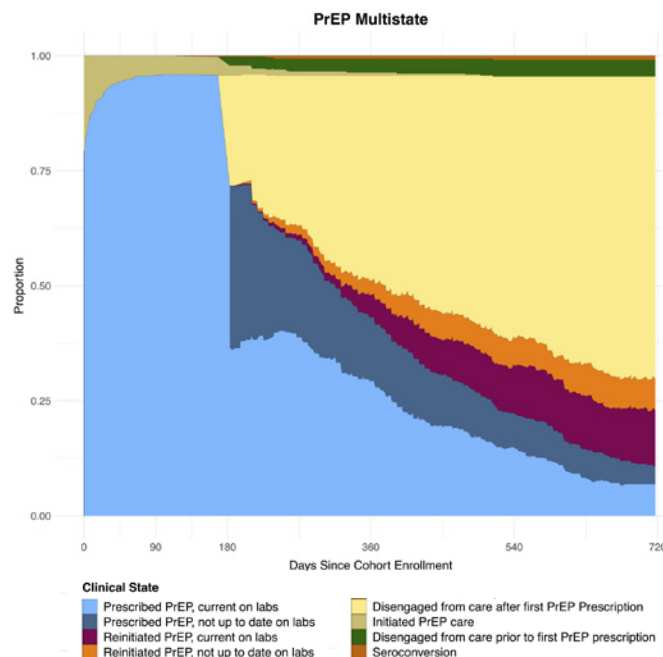
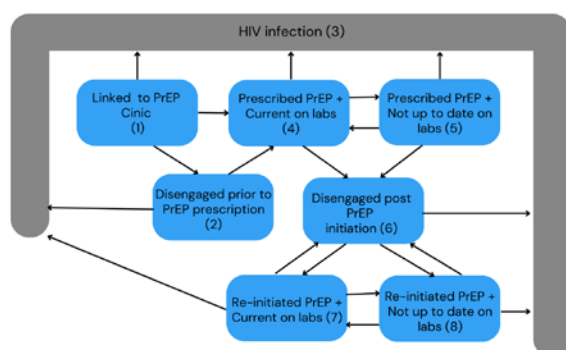


Figure 4. Reasons for Interest in LA-PrEP among DO-PrEP Users by Persistence



ORAL ABSTRACT 1101 – Figures 1 and 2





ORAL ABSTRACT 1165

Table 1 - Factors Related to LA-PrEP and Adherence

	Overall (N=319)
Injectable PrEP interest	
Not at all interested	38 (11.6%)
Slightly interested	43 (13.1%)
Neutral	3 (0.9%)
Interested	168 (51.1%)
Very interested	71 (21.6%)
Missing	6 (1.8%)
Preferred PrEP form	
Long-acting injectable PrEP (with shots every 2 months)	286 (86.9%)
Daily oral PrEP (with refills every 3 months)	17 (5.2%)
Vaginal ring (with monthly replacements)	1 (0.3%)
Neither	16 (4.9%)
Unsure	4 (1.2%)
Missing	5 (1.5%)
Willingness to pay for injectable PrEP	
Mean (SD)	70.3 (89.5)
Median [Min, Max]	50.0 [0, 500]
Missing	54 (16.4%)
Preferred location for injectable PrEP	
Healthcare clinic	274 (83.3%)
Family planning clinic	1 (0.3%)
Retail pharmacy	7 (2.1%)
Other, specify	0 (0.0%)
Missing	47 (14.3%)
Missed any oral PrEP pills in last 30 days	
No	165 (50.2%)
Yes	138 (41.9%)
Missing	26 (7.9%)

Table 2 - Factors Associated with Level of Injectable PrEP Interest¹

	aRR ²	95% CI ²	p-value
Slightly interested in injectable PrEP			
Missed any PrEP pills in last month	3.58	1.27, 10.07	0.016
Elevated depressive symptoms	2.05	0.17, 24.92	0.574
Partner HIV status			
HIV negative	--	--	--
HIV positive	2.59	0.12, 55.33	0.543
Unknown status	1.57	0.24, 10.49	0.641
Experienced any PrEP side effects	1.96	0.59, 6.47	0.270
Interested in injectable PrEP			
Missed any PrEP pills in last month	1.31	0.59, 2.88	0.508
Elevated depressive symptoms	0.70	0.07, 7.05	0.762
Partner HIV status			
HIV negative	--	--	--
HIV positive	1.72	0.14, 20.88	0.671
Unknown status	1.49	0.38, 5.88	0.572
Experienced any PrEP side effects	1.43	0.58, 3.49	0.435
Very interested in injectable PrEP			
Missed any PrEP pills in last month	0.38	0.15, 0.96	0.041
Elevated depressive symptoms	2.71	0.28, 26.16	0.390
Partner HIV status			
HIV negative	--	--	--
HIV positive	1.97	0.14, 27.25	0.613
Unknown status	1.00	0.23, 4.35	0.997
Experienced any PrEP side effects	0.51	0.19, 1.38	0.185

¹ additional adjustment for antenatal care visit number,

²aRR = adjusted relative risk ratio, CI = confidence interval

ORAL ABSTRACT 1201

Table 1. Clinic Characteristics

	N of clinics	% of clinics
Clinic Type		
Academic Medical Center	8	21%
Hospital	5	13%
Department of Health	3	8%
AIDS Service/Community Based Organization	8	21%
Federally Qualified Health Center	6	16%
Community Health Center/Primary Care	8	21%
Geographic Region		
West	7	18%
Southwest	9	24%
Midwest	4	11%
Southeast	8	21%
Northeast	10	26%
Stage of Implementation		
Has not started implementation of LAIARV	8	21%
Initiated <25 patients on LAIARV	23	61%
Initiated ≥25 patients on LAIARV	7	18%
Proposed Reach of LAIARV after One Year of Implementation		
≤10% of patients	17	46%
11-25% of patients	15	41%
>25% of patients	5	13%

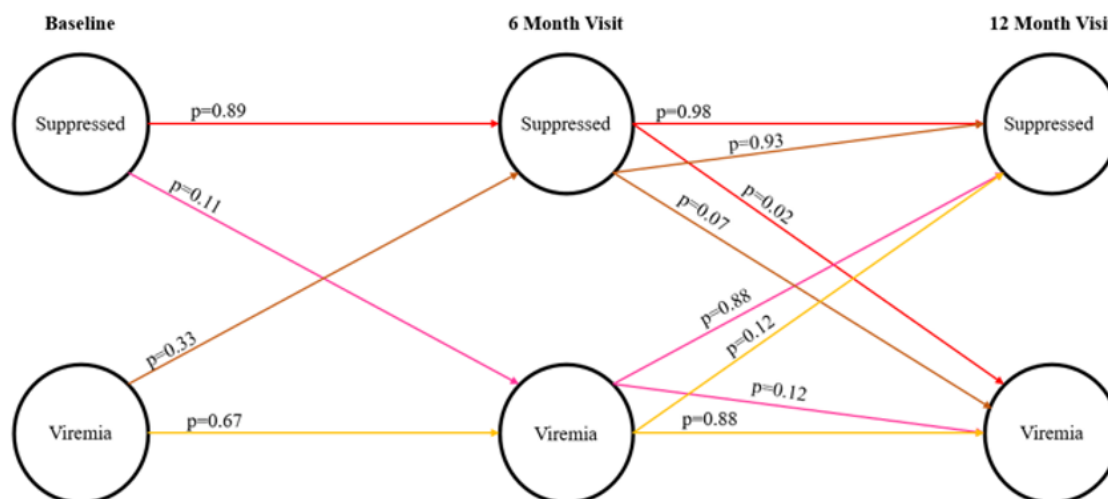
ORAL ABSTRACT 1218 - Table 1

	Rural, n (%), n=216	Urban, n (%), n=96	Odds ratio (95% CI)
Mental health care barrier (lifetime)	76 (35%)	20 (21%)	2.1 (1.2-3.6)
Mental health care barrier (last 12 months)	48 (22%)	14 (15%)	1.7 (0.9-3.2)
Depression/anxiety	71 (33%)	20 (21%)	1.9 (1.1-3.3)
HIV disengagement	45 (21%)	13 (14%)	1.7 (0.9-3.3)

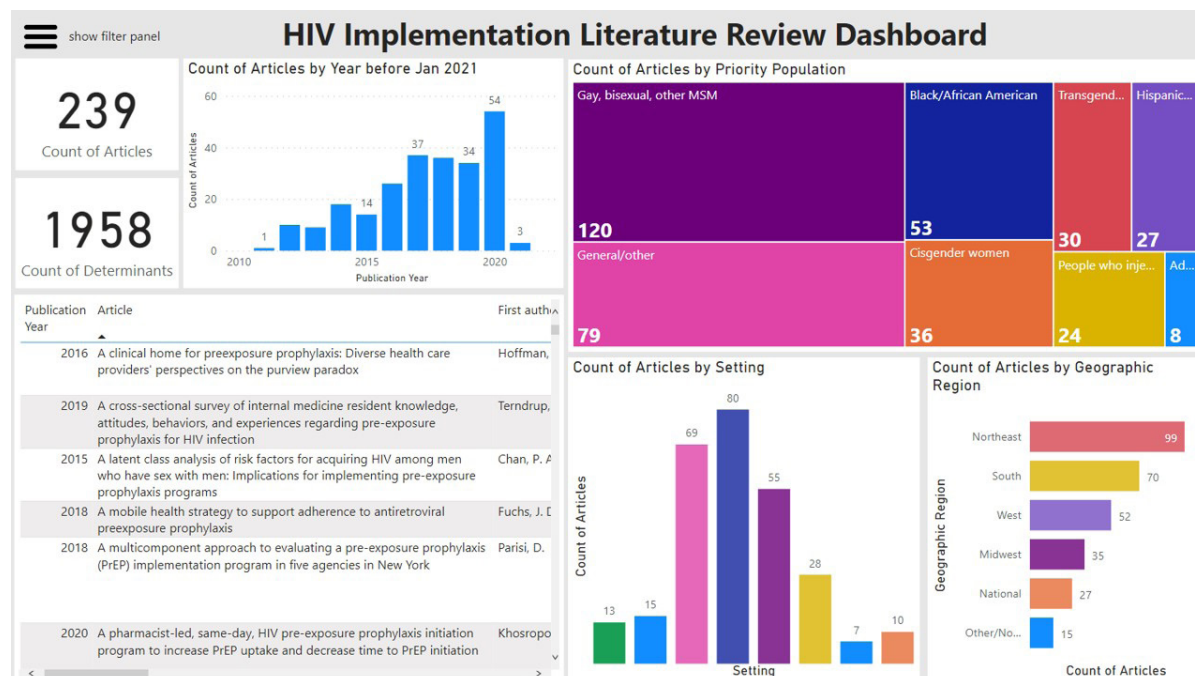


ORAL ABSTRACT 1225

Figure. Probabilities of Each Transition Across 12 Months



ORAL ABSTRACT 1236





FIGURES

ORAL ABSTRACT 1237

Table 1: Performance of 3 non-medicated silicone IVRs (46mm, 56mm, 66mm) each used for 30 days continuously by women in Atlanta, GA and the Bronx, NY

	46mm IVR n=23	56mm IVR n=20	66mm IVR n=22	Type III test of fixed effects p values
Proportion of days with a removal ¹	0.0233	0.0168	0.0763	<0.0001
Proportion of days with an expulsion ¹	0.0127	0.0029	0.0443	<0.0001
Proportion of days ring was out all day	0.0085	0.0029	0.0388	<0.0001
Number of participants /% adherent ²	18 (78%)	15 (75%)	13 (59%)	0.30

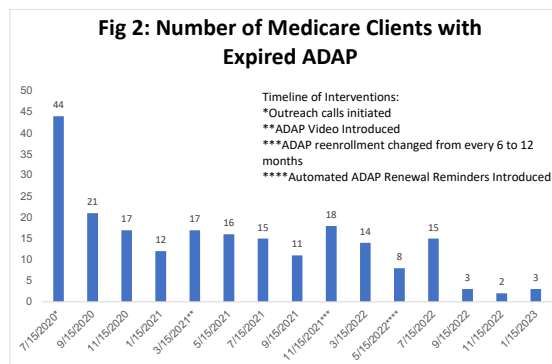
¹Removal/ Expulsion for any duration of time
²Adherence = IVR never out >1/2h in a 24h period

ORAL ABSTRACT 1239

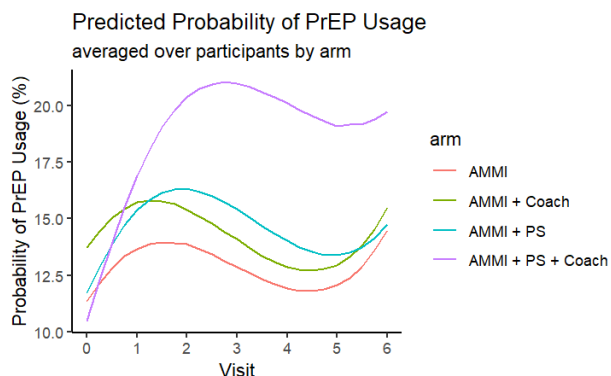
Fig 1



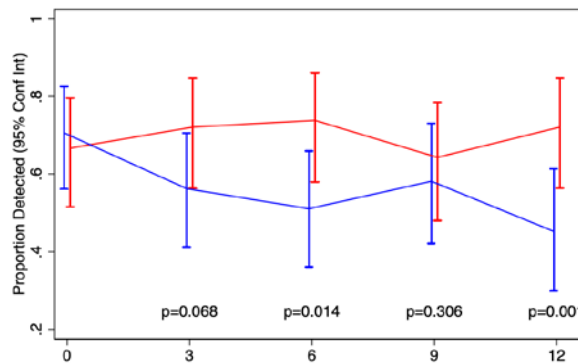
A snapshot of the ADAP instructional video



ORAL ABSTRACT 1278 - Figure 1



ORAL ABSTRACT 1302



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