Results A total of 40,217 women were included in the analyses, of whom 15.4% tested chlamydia positive genitally at their second test. Not being tested anorectally at the first test was an independent risk factor of genital chlamydia infection at the repeat test (aOR 1.24 [95%CI 1.15–1.33]). This effect was in the same range as most other significant risk factors in the model: low education level, no condom use, STI symptoms and previous STI diagnosis. Young age (<20 years 2.67, [2.39–2.98]) and received partner notification (3.11, [2.91–3.31]) showed stronger effects. The findings were robust: correcting for interactions and a sensitivity analysis stratifying by chlamydia infection at first visit did not show significant differences in the aOR of not being tested anorectally at first test.

Conclusion The results are suggestive of an autoinoculation process from the anorectal to the genital anatomical site in women. To enhance chlamydia control, future studies on the role of extragenital testing and autoinoculation in chlamydia transmission are needed.

P108 PREVALENCE AND EPIDEMIOLOGICAL FACTORS ASSOCIATED WITH TRICHOMONAS VAGINALIS INFECTION IN A US MULTICENTER STI CLINICAL STUDY

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Trichomonas vaginalis (TV) is the most common, curable non-viral sexually transmitted infection (STI) in the world, yet the epidemiology of the infection in the United States is not well defined. The infection is often associated with preterm birth, low-birthweight infants, infertility, as well as a facilitator for increasing the risk for acquisition and transmission of human immunodeficiency virus (HIV). Risk factors for TV in women include older age, race, impoverished socioeconomic status, and multiple sexual partners. The epidemiology of TV in men is less delineated, as men are not routinely tested, and most infections are asymptomatic.

In this work, we present TV prevalence in conjunction with *Mycoplasma genitalium*, *Chlamydia trachomatis*, and *Neisseria gonorrhoeae* prevalence with socio-demographic epidemiological data associated with patients enrolled in a multicenter STI study. Prevalence data was generated using the automated multiplex qualitative CE marked assay, Alinity m STI. The study included symptomatic and asymptomatic patients including a cohort of individuals who have been previously diagnosed with an STI seeking treatment at public health clinics and primary care offices within the United States.

The prevalence of TV in women was determined to be 12.3% and 0.6% in men. When stratified by ethnicity and prior STI history in this cohort, the positivity rate of TV in African American women was 22.3% compared to 1.6% in White women. Furthermore, in this data set, African American women 40 and older had the highest TV positivity rate at 26.5% compared to 22.9% for those 30–39, and 21.1% for those less than 29 years old. Those who reported not being diagnosed with a prior STI had a TV prevalence of 16.7% for African American women compared to 1.3% of White women. In this study, the overall prevalence of *Chlamydia trachomatis* was 9.8%, *Neisseria gonorrhoeae* was 2.4%, and *Mycoplasma genitalium* was 11.6%.

P112 REMOVING BARRIERS TO HIV SCREENING IN A COMMUNITY-BASED PEDIATRIC EMERGENCY DEPARTMENT

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Background Memorial University Medical Center conducts opt-out HIV screening in the Emergency Department (ED) for patients aged ≥ 13. After gaining consent, an electronic algorithm automatically orders an HIV test with the diagnostic evaluation for patients who meet CDC guidelines for HIV screening. Unfortunately, no pediatric patient aged 13–18 received HIV screening despite our out-opt testing protocol being in place since 2016.

Approach Through a systematic analysis, implicit bias to gain consent was repeatedly identified as the most common barrier to HIV screening in this population. Pediatric leadership developed strategies to improve HIV screening, including education of parents and staff, on-site support for staff and parents/guardians, pediatric patient counseling, and adding HIV screening to syphilis tests. Despite these interventions, HIV screening in the pediatric population only improved about 37% from January 2017 through November 2020. As a final strategy HIV screening was added to the sexually transmitted infection (STI) order set for patients who met CDC guidelines for STI. Pediatric ED HIV education to clinical staff continued, specifically emphasizing the high prevalence of HIV in our community.

Outcomes Persistence to drive change increased HIV screening by 61% from July 2020 to December 2020. Strategies producing the greatest impact were the inclusion of HIV testing in the standard STI panel and focused pediatric ED nurse education/support. As a result, current HIV screening in our pediatric patients aged 13–18 is now 88% of those who meet CDC guidelines to be screened.

Significance Up to 20% of HIV diagnoses occur during adolescence making screening in this age group imperative. Removing implicit bias from HIV screening is difficult. However, continued persistence and automated testing protocols can lead to increases in pediatric ED HIV screening. Because of our high HIV screening rate, many pediatric patients will have early identification of HIV and linkage to care.

P113 ACCEPTABILITY AND PREFERENCES FOR USING A NOVEL DEVICE TO SELF-COLLECT BLOOD SPECIMENS FOR HIV PRE-EXPOSURE PROPHYLAXIS (PREP) LABORATORY MONITORING

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Home-based PrEP monitoring (HBPM) has the potential to improve PrEP access and retention but is hampered by difficulties collecting blood, which typically involves painful fingersticks that yield insufficient specimen for quantitative syphilis serologies. We evaluated the use of the Tasso OnDemand™, a device that facilitates relatively painless self-collection of

enough blood for HIV, creatinine, and quantitative rapid plasma reagin testing.

From May 2020 – January 2021, we recruited subjects for two studies of the Tasso device and HBPM preferences. First, we sent invitations to English-speaking clients enrolled in an online messaging platform and receiving PrEP through the Sexual Health Clinic (SHC) in Seattle, WA, asking them to view a Tasso device video and complete a survey. In a second study, we recruited SHC PrEP clients and persons with known/suspected syphilis or living with HIV. After brief instruction in clinic, clients used the Tasso device and completed a survey about their experience.

Of 509 clients offered participation online and 46 in clinic, 102 (20%) and 46 (100%), respectively, completed surveys. Most participants were cisgender men (132, 90%) of median age 34 years who identified as non-Hispanic White (78, 52.7%). Thirty-seven (45%) reported a history of syphilis. Given current COVID restrictions, 124 (89.2%) participants were interested in self-collecting PrEP laboratory samples at home. Many felt home sampling kits would increase their likelihood of staying on PrEP (61/135, 45.2%). Of the 46 participants who self-collected blood specimens in clinic, 42 (93.3%) felt the process was easy and 35/36 (97.2%) PrEP-eligible participants felt they could similarly self-collect blood at home.

Self-collection of blood specimens using the Tasso device is feasible and acceptable to persons using PrEP. Future studies will assess how often individuals will use this device rather than come to the SHC for PrEP care and the impact of HBPM on PrEP retention.

P114

A NEW METHOD FOR SELF-COLLECTION OF BLOOD SPECIMENS FOR HIV PRE-EXPOSURE PROPHYLAXIS (PREP) LABORATORY MONITORING

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Sexually transmitted infection (STI) testing is an important component of PrEP care. Home-based PrEP monitoring (HBPM), consisting of STI sample self-collection and remote follow-up, could improve PrEP access and retention rates, particularly in the context of the COVID-19 epidemic. However, existing fingerstick methods for collecting blood often result in too little specimen for quantitative rapid plasma reagin (RPR) testing, limiting the ability to distinguish between old and new syphilis infections. We evaluated the Tasso OnDemand™ device, designed to collect 300 µg of capillary blood, for self-collecting blood specimens for PrEP monitoring, including quantitative syphilis testing.

From July 2020 – January 2021, we enrolled 46 clients who were either on PrEP, had known/suspected new syphilis infection or were living with HIV and seeking STI care at a sexual health clinic in Seattle, WA, USA. After brief instruction, clients used the Tasso device in the clinic to self-collect blood from the upper arm. We compared HIV antigen/antibody, quantitative RPR and creatinine assay results using paired Tasso and venipuncture serum specimens.

Most clients were cisgender men (42/46, 91%) and currently using PrEP (33/37, 89%). Of 46 participants, 40 (87%)

collected a blood sample sufficient to complete ≥1 test. Percent positive agreement and negative percent agreement (PPA and NPA, respectively) for 34 HIV specimens was 100% (7/7 HIV positive). Of 30 paired qualitative RPR specimens, PPA was 100% (10/10 samples) and NPA was 95% (19/20 samples). Differences between 9 paired quantitative RPR titers were all ≤1 dilution. Paired creatinine results (n=9) were strongly and positively correlated ($r^2=0.84$, $p=0.008$) with a median difference of 0.05 mg/dL (range: -0.01–0.20).

Self-collection of blood specimens adequate for recommended PrEP laboratory testing is feasible and results show high levels of agreement with venipuncture samples. The Tasso device shows promise for use in mailed sampling kits for HBPM.

P116

FACTORS ASSOCIATED WITH EXCHANGE SEX AMONG WOMEN AND MEN WHO INJECT DRUGS – 23 US CITIES, 2018

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Background People who inject drugs (PWID) and exchange sex face disproportionate burdens of HIV and sexually transmitted infections (STIs). Studies examining risk factors for exchange sex are limited among PWID, especially men, and could help tailor prevention efforts.

Methods We used 2018 National HIV Behavioral Surveillance data to assess prevalence of exchange sex among PWID, specifically women and men with a history of sex with men (MSM). Exchange sex included receiving money/drugs for sex from ≥1 male partner(s) during the past year. We conducted bivariate analyses that accounted for each respondent's city and network size to examine associations between exchange sex and sociodemographic characteristics, risk behaviors, and HIV/STI diagnoses.

Results Among 4,657 PWID (3,391 women; 1,266 MSM), over one-third reported exchange sex (women: 36.2%; MSM: 34.8%). Women who exchanged sex (WES) tested HIV-positive more frequently (8.0% vs. 4.8%, $P=0.005$) and reported more frequent recent bacterial STIs (13.4% vs. 5.1%, $P<0.001$) than other women. Men who exchanged sex with men (MESM) showed similar trends (HIV: 17.5% vs. 14.6%, $P=0.181$; STIs: 12.7% vs. 6.1%, $P<0.001$). WES and MESM were more likely to be uninsured (women: 45.7% vs. 33.3%, $P<0.001$; MSM: 43.3% vs. 31.6%, $P=0.002$) and recently homeless (women: 41.8.4% vs. 25.2%, $P<0.001$; MSM: 39.6% vs. 17.2%, $P<0.001$). WES also reported higher frequencies of unemployment (37.2% vs. 29.2%, $P=0.001$) and incarceration (42.5% vs. 33.4%, $P<0.001$) than other women. WES and MESM were more likely to engage in polydrug use and risky sexual behaviors (e.g. number of condomless anal sex partners).

Conclusion Men are often overlooked in interventions for PWID who exchange sex; however, we found women and MSM had similar frequencies of and risk factors for exchange sex among PWID. Interventions for PWID should be available for women and men who report exchange sex, while integrating opportunities for HIV/STI testing and preventative care.