syphilis diagnosis, 42% of studies used RPR, 24% used VDRL, and 18% used FTA-Abs. From 2000–2017, syphilis prevalence among MSM/TW in NA was 6.6% (95% CI: 5.7–7.4%) and 13.3% (95% CI: 11.7–14.9%) in LAC. For TW alone, prevalence was 7.1% (95% CI: 2.3–11.9%) in NA and 31.7% (95% CI: 19.1–44.4%) in LAC. Among MSM/TW with HIV in NA, prevalence was 10.5% (95% CI: 7.4–13.3%) versus 4.0% (95% CI: 1.8–6.1%) in those without HIV. In LAC, syphilis was diagnosed in 15.1% (95% CI: 0–30.3%) of MSM/TW with HIV and 12.9% (95% CI: 9.5–16.2%) without HIV.

Conclusion From 2000–2017, the burden of syphilis in MSM/TW was greater in LAC than NA. Prevalence estimates were higher in certain subgroups, including TW in LAC and MSM/TW with HIV in NA, though these data were limited. Our results suggest a need for additional data on syphilis epidemiology with stratification by key subgroups, classification by stage of disease, and uniform diagnostic criteria to target public health strategies in the Americas.

Disclosure No significant relationships.

P787 **TRICHOMONAS VAGINALIS POSITIVITY RATES BY HIV STATUS AMONG WOMEN IN A CLINICAL STUDY**

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Background Numerous studies have shown that *Trichomonas vaginalis* (TV) infection is related to risk of HIV infection, but fewer studies have compared positivity rates based on HIV status. Further, the majority of studies that have looked at this topic have either been performed outside the US, or in HIV specialized care settings. We performed a secondary analysis of data collected for evaluation of a molecular diagnostic assay for Sexually Transmitted Infections (STI) diagnostics.

Methods Study data from patients with evaluable results obtained using a BD MAX CTGCTV study for detection of *Chlamydia trachomatis* (CT), *Neisseria gonorrhoeae* (GC) and TV were reviewed for HIV status. These women were recruited from 11 sites in the US that included STID clinics; Family Planning clinics, including Planned Parenthood clinics; OB/GYN clinics and other clinic types. No HIV care specialty clinics participated in recruiting patients into this study. CT, GC and TV results based on HIV were compared status using χ^2 with $\alpha=0.05$.

Results HIV status data from 2339 women were available. Among HIV negative women the positivity rates for CT, GC, and TV were 6.2%, 1.9%, and 10.3% respectively. Among HIV positive women the positivity rates for CT and TV were 2.1% and 27.1% respectively. No GC coinfection was detected among HIV positive women. For TV, the positivity rate among women with HIV [27.1% (13/48)] was significantly higher than that of among HIV (-) women [10.3% (236/2291)] ($p<0.001$).

Conclusion While women engaged in HIV specialty care may be tested for STIs routinely, as services are being pushed to more primary care settings, it is important for clinicians to be aware of the importance of STI screening among HIV (+) women, particularly for TV.

Disclosure No significant relationships.

P788 **COMPARISON OF VAGINAL SPECULUM AND NON-SPECULUM SPECIMENS IN THE DIAGNOSIS OF TRICHOMONAS VAGINALIS**

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Background Trichomoniasis is the most prevalent non-viral sexually transmitted infection worldwide. In Nigeria, prevalence ranges from 5% to 15%. Apart from being a key biologic indicator of sexual activity, it's been associated with the transmission of Human Immunodeficiency virus. The use of vaginal speculum is traditionally required for specimen collection. The limited application of this step in various primary health care facilities in resource-poor settings due to difficulties with sterilization of speculae among others, has grossly reduced the offer of testing for Trichomoniasis. Self-collected vaginal swab could be an acceptable alternative specimen for diagnosis of trichomoniasis in low income settings. We compared the yield of *Trichomonas vaginalis* from speculum and non-speculum based specimens.

Methods 500 women between 18–45 years presenting with abnormal vaginal discharge in two health care facilities in Rivers State, Nigeria, were enrolled. Three specimens were collected from each woman; two non-speculum based/non-invasive and the third, speculum based. Microscopists were trained and the procedure standardized. Wet mount microscopy was performed on all specimens within thirty minutes of collection. Three Microscopists examined each specimen independently. All infected patients were managed according to existing guidelines. Ethical approval was obtained and data analyzed using SPSS version 20.

Results Median age of participants was 31 years. Of the 500 women, 53 were infected giving an overall prevalence of 10.6%. Using the speculum-based specimens, 90.5% (48) of infected women were detected while 83.0% (44) and 30.1% (16) were detected using the self-collected swab and first void urine respectively. Interestingly, first void urine was able to detect five (5) more cases that were not detected by the speculum-based method.

Conclusion In low income settings, use of self-collected swabs in combination with first void urine is likely to increase detection rate of *Trichomonas vaginalis* when compared with the use of vaginal speculum only.

Disclosure No significant relationships.

P789 **BACTERIAL VAGINOSIS MARKERS DETECTED BY BD MAX™ VAGINAL PANEL IN RELATION TO ABSENCE AND PRESENCE OF TRICHOMONAS VAGINALIS**

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Background The three most frequent causes of vaginitis are bacterial vaginosis (BV), vulvovaginal candidiasis (VVC) and Trichomoniasis (TV). Within women presenting with symptoms of vaginitis, the concomitant detection of two or more pathogens is common; however, little is known about the biology of pathogen interactions during co-infections. Using a NAAT

that allows simultaneous detection of organisms associated with BV, VVC and TV, we sought to characterize BV marker combinations in the absence and presence of BV and/or TV co-infections.

Methods The BD MAX™ Vaginal Panel is a sample to answer NAAT capable of simultaneous detection of *G. vaginalis*, *A. vaginae*, BVAB-2/Megasphaera-1, *L. crispatus*/*L. jensenii*, *C. albicans*/parapsilosis/tropicalis, *C. glabrata*, *C. krusei* and *T. vaginalis*. The data obtained from BD MAX Vaginal Panel runs conducted on 1,740 clinician-collected specimens taken from symptomatic patients was analyzed to determine if any detection patterns emerged. The distribution of BV marker combinations detected in the absence and presence of BV and/or TV were compared.

Results Independent of the BV result (BV+ or BV-), the proportions of samples containing no BV markers and samples containing all BV markers were different in TV- and TV+ samples. TV+/BV- samples displayed a significantly higher number of cases in which only *A. vaginae* was detected or a combination of *A. vaginae* and *G. vaginalis* than in samples found TV-/BV-, TV-/BV+ or TV+/BV+.

Conclusion The BV marker detection patterns vary with the presence of co-infection by TV. The results obtained in this analysis suggest some interplay between BV and TV and warrants further investigation.

Disclosure No significant relationships.

P790

DETERMINING THE ORIGINS OF REPEAT *TRICHOMONAS VAGINALIS* INFECTIONS USING CLINICAL VERSUS GENOTYPE-INFORMED CRITERIA

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Background High rates of repeat *T. vaginalis* infections post-treatment have been reported. It is essential to understand the origin of these infections (i.e. treatment failure or reinfection) to determine the best secondary prevention measures. Self-reported sexual behavior and medication adherence can be subject to bias. The purpose of this study is to examine the origins of early repeat *T. vaginalis* infections in women using clinical versus genotype-informed criteria.

Methods Women with *T. vaginalis* confirmed by culture or nucleic acid amplification test (NAAT), who were randomized to receive 2 g or 7-day 500 mg BID metronidazole (MTZ), were retested 3–12 weeks post treatment at test-of-cure (TOC). Viable isolates from women who were TOC TV+ were genotyped (baseline and TOC isolates) and MTZ susceptibility (TOC only) was evaluated. Sexual and treatment adherence histories were elicited by computer-assisted self-administered survey. Treatment failure was defined using two criteria: 1) clinical (a combination of MTZ adherent per self-report+ no follow-up sexual exposure per self-report + no MTZ resistance), and 2) genotype-informed (concordant

baseline and TOC genotype with no follow-up sexual exposure per self-report).

Results Of 80 repeat positives, 78 were evaluated using clinical and 49 using genotype-informed criteria. Per clinical criteria, 87.2% were treatment failure, 7.7% were reinfection and 5.1% were new infection. Per genotype-informed criteria, 51.0% were treatment failure, 10.2% were reinfection and 38.3% were new infection. In subset analysis, comparing the 49 with both clinical and genotype-informed assessments, 61.2% agreed and 38.8% disagreed (kappa 0.29 indicating poor reliability). Of 44 women who denied having a new partner during follow-up, 14 (31.8%) had a discordant genotype.

Conclusion Using either criteria, most TOC *T. vaginalis* positives were treatment failure rather than re-infections. Clinical and genotype-informed classification were not well correlated. Possible explanations for this will be discussed.

Disclosure No significant relationships.

P791

ASSESSMENT OF URETHRITIS ETIOLOGY AMONG HIV-INFECTED MEN ATTENDING AN STI CLINIC IN LILONGWE, MALAWI

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Background Malawi uses syndromic management for the treatment of sexually transmitted infections (STIs). However, the etiology profile of STIs has been shown to change over time. We conducted a current assessment for etiology of urethral discharge (UD) among men in Lilongwe Malawi to inform development of effective national treatment guidelines.

Methods We enrolled a cohort of HIV infected men with UD who were either ART naïve or on ART for ≥ 12 weeks at Bwaila STI clinic. We collected blood samples and urethral swabs for STI etiologic testing as follows: *Neisseria gonorrhoeae* (GeneXpert, culture), *Chlamydia trachomatis* (GeneXpert), and *Trichomonas vaginalis* (OSOM – Trichomonas Rapid Test). All patients were treated syndromically with gentamicin, doxycycline, and metronidazole, per Malawian standard of care. Clinical and demographic characteristics were also collected. We assessed differences between men on ART for ≥ 12 weeks and men not on ART using chi square tests and exact statistics (alpha=0.05).

Results 189 men were enrolled between January 1, 2017 and December 31, 2018; 87 (46.0%) were not on ART, and 102 (54.0%) were on ART. Participants reported urethral discharge for a median of 4 days (IQR: 3, 7). Among participants, 152 (80.4%) tested positive for gonorrhea via GeneXpert and 124 (66.7%) via culture; 17 (9.0%) tested positive for chlamydia, 6 (3.2%) tested positive for trichomonas and 30 (15.9%) did not test positive for any of the three etiologies. 15 (7.9%) participants had multiple STIs. There were no differences in distribution of etiologies (individual or multiple) between men on and not on ART ($p \geq 0.10$ for all comparisons).