Background Young women in sub-Saharan Africa are at high risk for sexually transmitted infections (STIs) and often rely on hormonal contraception (HC) to prevent unwanted pregnancies. Some observational data suggest that HC might affect STI risk. We examined the impact of three HC methods on the adolescent STI incidence and BV prevalence in a randomized trial.

Methods 130 adolescent females aged 15 to 19 from Cape Town were enrolled and randomized into three study arms: 1. injectable norethisterone enanthate (NET-EN), 2. combined oral contraceptives (COCs) or 3. combined contraceptive vaginal ring (CCVR) for 16 weeks. Participants then switched to a second HC for a final four months. Vaginal samples were collected at baseline, crossover and exit for STI (chlamydia, gonorrhea, mycoplasma and trichomoniasis) and bacterial vaginosis (BV) testing by Nugent scoring.

Results At baseline, the BV and STI prevalence was 44% and 42%, respectively. There were no significant differences in STI incidence between study arms at crossover, however in an according to protocol analyses, participants using COCs were significantly less likely to present with any STI than participants using either NET-EN (OR 0.22, 95% CI 0.06–0.71, p=0.017) or CCVR (OR 0.21, 95% CI 0.05–0.69, p=0.015). Specifically, participants on CCVR were more likely to be infected with N. gonorrhoea (OR 11.7, 95% CI 2.0–224, p=0.025). These associations stayed significant after adjusting for self-reported sexual behaviour, including condom use. There was a decreased prevalence of BV in the COC arm and an increased BV prevalence in the NET-EN and CCVR arms at crossover, but these differences were not statistically significant.

Conclusion Use of COCs was associated with lower BV prevalence and STI incidence compared to NET-EN and CCVR use.

Disclosure No significant relationships.
months (immediate post-CVR) and 3–6 months (sustained post-CVR) relative to the 1-month visit (pre-CVR).

Results Between April 2016 to November 2017, 151 women (median age 27 y) were enrolled and 122 (81.9%) initiated CVR; 30 (24.6%) were HIV-infected. Six women (4.9%) had BV at the pre-CVR visit. Over a median duration of follow-up of 4.7 months, BV incidence/recurrence was 10.2% at the immediate post-CVR visit and 7.1% over the sustained post-CVR visits. In a model combining CVR arms that adjusted for age and unprotected sex, we observed a non-significant increase in BV incidence/recurrence immediately post-CVR (adjusted OR = 2.5 (0.9, 7.2), after which BV returned to a level comparable to CVR insertion (AOR=1.2 (0.8, 1.9).

Conclusion Cumulative incidence of recurrent BV in the 6 months after CVR initiation is lower than historically reported rates in prospective studies, which are typically in ≥50% range. Concomitant incidence of vulvovaginal candidiasis, however, requires further study. The CVR should be considered for potential long-term optimization of the vaginal environment.

Disclosure No significant relationships.

P370 PREVALENCE OF CHLAMYDIA, GONORRHOEA, M. GENITALIUM AND T. VAGINALIS IN THE GENERAL POPULATION OF SLOVENIA, 2016–2017

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Background To inform sexually transmitted infections (STIs) prevention and control, objective of the second National Survey of Sexual Lifestyles, Attitudes and Health was to estimate the prevalence of Chlamydia trachomatis, Neisseria gonorrhoeae, Mycoplasma genitalium and Trichomonas vaginalis infections.

Methods A survey of the general population aged 18–49 was conducted in 2016–2017. We used stratified two-stage probability sampling from the Central Population Registry. Survey respondents were invited to contribute first void urine specimens for testing for C. trachomatis and unlinked anonymous testing for other STIs to obtain population prevalence estimates. Specimens were tested for C. trachomatis with specific real time PCR targeting both cryptic plasmid and bacterial chromosome. Positive results were confirmed by Sanger sequencing of the amplicon. Other STIs were detected by a stored vaginal swabs of 80 African American (AA) women were randomly selected from a previously conducted clinical trial for this pilot study. Women with BV were treated with metronidazole. Vaginal smears were categorized by the Nugent score (NS) [0–3, normal; 4–6, intermediate state; 7–10, BV]. Women were classified as recurrent BV (RBV), persistent BV (PBV) or no BV based on three consecutive NS. RBV occurs when an episode of BV occurs after successful treatment of a prior episode. PBV occurs in instances when BV treatment fails to restore healthy Lactobacillus levels. All women were asymptomatic for BV at baseline and followed every two months for four months.

Results After four months, 22.5% (CI: 13%, 32%) of women did not have BV, 7.5% (CI: 2%, 13%) had RBV and 70% had PBV (CI: 60%, 80%). 30% of treated women did not have BV compared to 15% of untreated women (p=0.18). BV recurred among 12.5% of treated women and 2.5% of untreated women (p=0.2). BV persisted among 57.5% of treated women and 82.5% of untreated women (p=0.03). Women that were treated had 0.33 decreased odds (95%CI: 0.12, 0.92, p=0.05) of having PBV as compared to untreated women. The mean age was 21.4 years (SD: 2.11 years). Prior antibiotic use among those who were previously treated for BV, 60% were treated more than five times. Douching was reported by 49% of the sample.

Conclusion These preliminary findings suggest, standard BV treatment may not be effective among women with RBV or adherence to treatment may be low among women with asymptomatic BV.

Disclosure No significant relationships.