discriminating influence were *Lactobacillus*, *Anaerococcus*, and *Staphylococcus*. In crude analysis, cytokines TNF-α/IP-10(IL-10 were elevated among MSWomen (p<0.05, each); IL-8 did not differ by group; IL-1β was higher among MSM (p=0.03). Cytokine concentration increased in response to *Corynebacterium* (IL-8/TNF-α/IP-10/IL-1β), *Gardnerella* (IL-8/IP-10/IL-1β), *Veillonella* (IL-8/IP-10/IL-1β), and *Peptoniphilus* (IL-8/IL-1β). Microbiome composition did not account for the difference in TNF-α, IP-10, or IL-10 between groups; the difference in IL-1β became non-significant after accounting for taxa. Among MSWomen, IL-1β (p=0.01) and IL-8 (p=0.05) were elevated if the female partner had BV.

**Conclusion** To our knowledge, this is the first comparison between MSM and MSWomen of penile microbiome and urinary cytokines. Future studies should examine whether microbiome and mucosal inflammation differences between MSM and MSWomen cause differential risk of HIV/STI acquisition or differential impact on efficacy of HIV/STI interventions.

**Disclosure** No significant relationships.

**P859** 2018/2019 SURVEILLANCE UPDATE ON NEISSERIA GONORRHOEAE ISOLATES

Meshack Omolo*. University of Nairobi, Obstetrics and Gynaecology, Nairobi, Kenya

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**Background** The global prevalence of antimicrobial resistance (AMR) in Neisseria gonorrhoeae (GC) is increasing and of specific concern is the emerging resistance to third generation cephalosporins worldwide. In Africa, exceedingly limited AMR data is available. The study determined the AMR in GC isolates a public referral clinics offering HIV and STI testing and treatment to people living in Nairobi and the region.

**Methods** The survey on men presenting with urethral discharge at the special treatment Clinic (STC-Casino Clinic) collected samples from symptomatic men, inoculated on modified Thayer martin media (MTM) and identified by standard bacteriological methods. The MICs of five antibiotics Azithromycin, Gentamycin, ciprofloxacin, cefixime and ceftriaxone are determined by the Etest method (AB Biodisk, Solna, Sweden) and results defined as susceptible, intermediate and resistant. WHO reference strains were used as controls.

**Results** A total of 153 samples have been collected with 96 samples having tested culture positive, giving a 62.7% prevalence on samples collected from 25th June 2018 to 5th February, 2019. The mean MIC of 0.016 was recorded for Azithromycin, cefixime, while a mean MIC of 1.41 and 2.0 was recorded for Ciprofloxacin and Gentamycin respectively. The MIC range for Ciprofloxacin and Gentamycin was from 0.004 to 6 and from 0.125 to 8 respectively.

**Conclusion** This is a continuous study on the Gonococcal surveillance program to describe antimicrobial resistance profiles of antibiotics used in the region. It confirms that N. gonorrhoea isolates from Nairobi in 2018 possessed high level resistance to Ciprofloxacin an antimicrobials previously recommended for the treatment of gonorrhea. Cefixime, ceftriaxone and azithromycin are still useful drugs for treatment of gonococcal infections in Kenya. The outcome of this study together with other additional studies will enable revisions of the gonorrhea treatment guidelines in Kenya and support in antimicrobial resistance in the region.

**Disclosure** No significant relationships.

**P861** NOVEL MUTATION CONFERRING HIGH-LEVEL AZITHROMYCIN RESISTANCE IN NEISSERIA GONORRHOEAE

Evelyn Nash, Hsi Liu, Matthew Schrimer, Sancta St Cyr, Samera Sharpe, Olusegun Soge, Henrietta Hardin, Ellen Kesh, Cau Pham*. US Centers for Disease Control and Prevention, Division of STD Prevention, Atlanta, USA; University of Washington, Global Health and Medicine (Infectious Diseases), Seattle, USA; Tennessee Department of Health, Nashville, USA; Centers for Disease Control and Prevention, Atlanta, USA

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**Background** Azithromycin resistance in Neisseria gonorrhoeae has been attributed to several resistance-associated mutations
including mutations in the 23S rRNA genes conferring varying levels of azithromycin resistance. Here, we report the emergence of a novel A to G mutation at the 2058 nucleotide residue (A2058G) in the 23S rRNA genes, in two gonococcal isolates, that confers high-level resistance to azithromycin (HLAziR; \( C_{256} \geq 256 \text{ mg/ml} \)).

Methods The collection and antimicrobial susceptibility testing of \( N. \) gonorrhoeae isolates were performed as part of the Gonococcal Isolate Surveillance Project (GISP). Isolates with elevated minimum inhibition concentration to azithromycin (\( \geq 2 \text{ mg/ml} \)) were subjected to molecular analysis using Sanger PCR sequencing and/or whole genome sequencing analysis. Etest was performed to confirm azithromycin susceptibility level and to determine the hetero-resistance phenotype (a concentration-dependent response to antibiotic) of the reported isolates.

Results Molecular analysis of GISP isolates from 2014–2018 revealed two isolates collected from two patients having the A2058G mutation in the 23S rRNA genes. One isolate had the HLAziR phenotype and A2058G mutations in all four 23S rRNA. The second isolate had the A2058G mutation in three of the four alleles and displayed a hetero-resistance phenotype (azithromycin MIC ranging from 4 mg/ml to \( \geq 256 \text{ mg/ml} \)). The wild-type allele was very conducive to A2058G conversion and resulted in a complete HLAziR phenotype. This mutational nucleotide conversion occurred in less than twenty hours after exposure to azithromycin using Etest.

Conclusion HLAziR in \( N. \) gonorrhoeae had largely been confined to isolates harboring a point mutation at nucleotide residue A2059G of the 23S rRNA genes. The newly discovered A2058G mutation further illuminates the genomic plasticity in \( N. \) gonorrhoeae when responding to antibiotic exposure and suggests a rapid recombination frequency between the 23S rRNA alleles at this nucleotide residue.

Disclosure No significant relationships.

Results One hundred and thirty-one FSWs with a median age of 25 years (IQR: 21–31) participated. Most participants were single (78%), 10% being married, and 11% being either divorced or widowed. FSWs reported a median 5 (IQR: 3–6) daily sexual partners. Fifty-three (40%) participants reported having at least one encounter of unprotected casual sexual intercourse within the preceding three months. Only 71 (54%) participants had heard about PrEP. Of the FSWs that had heard about PrEP, 46 (35%) had adequate knowledge on its use. A total of 102 (78%) of the participants revealed that they would be willing to always use oral PrEP if it was provided to them for free. Likelihood of PrEP use increased among participants who had unprotected sex in the last 3 months (\( r = 0.0448, p = 0.026 \)). Participants that were more knowledge about PrEP had an increased likelihood for PrEP use (\( r = 0.21, p = 0.0153 \)).

Conclusion Knowledge of PrEP among FSWs in Zimbabwe was low. To increase uptake of PrEP as an HIV prevention strategy there will be need to further sensitize FSWs on this intervention.

Disclosure No significant relationships.

Background Pre-exposure prophylaxis (PrEP) provides protection to sexually active persons at risk of acquiring HIV. Eligible female sex workers (FSWs) are a key population in which oral PrEP is indicated. The aim of this study was to evaluate knowledge levels of oral PrEP and the likelihood of its use among FSWs.

Methods A cross-sectional study in HIV uninfected FSWs was conducted. Interviews assessing awareness and intention to use PrEP were conducted initially. A description of PrEP as an HIV prevention strategy would be given after assessing awareness. Relative importance index was used to assess levels of knowledge, likelihood and barriers to PrEP use. A bivariate logistic regression model was utilized to identify predictors of PrEP use.

Results Three principal themes were raised: social issues; stigma, discrimination/trauma and mental health issues; healthcare access. High risky behavior as condomless sexual intercourse were mentioned due to social and family rejections, difficult to access healthcare services, and stigma with discrimination. However, according to the findings, access to HIV/STIs services was considered better when compared to other health services.

Conclusion This qualitative study investigated HIV/STIs risk behaviors of TW in Lebanon. Our findings about social and family issues, discrimination and stigma, health care access difficulty even from LGBT community should help local programs to better understand the TW population in Lebanon and their needs. Special services addressing TW in non-medical and medical issues, taking into consideration an overall comprehensive and multi-disciplinary intervention appears to be the most useful.

Disclosure No significant relationships.