

recurrent incidence rate was 72.1 per 100 person-years with GC, CT, and syphilis as the most common recurrent infections (Table 1). Of all GC and CT infections, the majority were rectal (48.7% and 49.9%, respectively) (Table 2). Only 65.8% of patients with rectal GC and 68.5% with rectal CT infections reported recent receptive anal sex (Table 3).

Table 1: First and recurrent incidence rates of any STI and individual STIs per 100 person-years

Type	N at Risk	Confirmed First STI <sup>1</sup> (% at Risk)	First STI Incidence (95% CI) per 100 Person-Years	Recurrent STI Incidence (95% CI) per 100 Person-Years
Any STI	621	520 (83.7%)	35.75 (32.74, 38.96)	72.10 (68.34, 76.01)
Individual STIs				
Gonorrhea	621	298 (48.0%)	10.77 (9.59, 12.07)	34.75 (31.24, 38.55)
Chlamydia	621	282 (45.4%)	10.23 (9.07, 11.49)	23.05 (20.22, 26.17)
Trichomonas	621	48 (7.7%)	1.22 (0.88, 1.63)	15.49 (10.45, 22.11)
HPV	621	341 (54.9%)	13.98 (12.54, 15.55)	
BV	621	65 (10.5%)	1.89 (1.46, 2.41)	14.72 (11.09, 19.16)
Syphilis	621	223 (35.9%)	7.77 (6.79, 8.86)	19.43 (16.48, 22.75)
LGV	621	77 (12.4%)	2.18 (1.72, 2.72)	10.10 (6.71, 14.60)
Chancroid	621	1 (0.2%)	0.03 (0.00, 0.15)	0 (NA)
Herpes	621	73 (11.8%)	2.05 (1.61, 2.58)	
Hepatitis C	621	11 (1.8%)	0.29 (0.15, 0.52)	

<sup>1</sup>Including patients with historical STI events

Abbreviations: STI, sexually transmitted infection; HPV, human papilloma virus; BV, bacterial vaginosis; LGV, lymphogranuloma venereum

Table 2: STIs by site, all infections

Characteristic	Pharyngeal	Rectal	Urogenital
Gonorrhea, N=655	191 (29.2%)	319 (48.7%)	257 (39.2%)
Chlamydia, N=521	32 (6.1%)	260 (49.9%)	246 (47.2%)

Characteristic	Gonorrhea	Chlamydia
	N=655	N=521
Pharyngeal Only	109 (16.6%)	18 (3.5%)
Rectal Only	219 (33.4%)	234 (44.9%)
Urogenital Only	204 (31.2%)	230 (44.2%)
Pharyngeal + Rectal	58 (8.9%)	12 (2.3%)
Pharyngeal + Urogenital	11 (1.7%)	2 (0.4%)
Rectal + Urogenital	29 (4.4%)	14 (2.7%)
Pharyngeal + Rectal + Urogenital	13 (2%)	0 (0%)
No Indication	12 (1.8%)	11 (2.1%)

Table 3: Reported exposure history vs. STI site positivity

Site Exposure	Gonorrhea	Chlamydia
<b>Pharyngeal</b>		
<i>Reported Oral Sex</i>		
Yes	107 (56%)	16 (50%)
No	37 (19.4%)	5 (15.6%)
Unknown	47 (24.6%)	11 (34.4%)
<b>Rectal</b>		
<i>Reported Anal Receptive Sex</i>		
Yes	210 (65.8%)	178 (68.5%)
No	43 (13.9%)	36 (13.9%)
Unknown	66 (20.7%)	46 (17.7%)
<b>Urogenital</b>		
<i>Reported Anal Insertive<sup>1</sup> Sex</i>		
Yes	116 (54.5%)	60 (44.1%)
No	45 (21.1%)	38 (27.9%)
Unknown	52 (24.4%)	38 (27.9%)
<i>Reported Vaginal<sup>2</sup> Sex</i>		
Yes	24 (54.5%)	60 (54.5%)
No	13 (29.6%)	21 (19.1%)
Unknown	7 (15.9%)	29 (26.4%)

<sup>1</sup>Males and transgender women only; <sup>2</sup>Women and transgender men only

**Conclusion:** Our study demonstrates disproportionately high incidence and re-infection rates of co-STIs in HIV-positive AYAs. Furthermore, many patients did not report exposure at their site of infection. If screening is done based off reported exposure history alone, many infections may be missed. Our data support the urgent need for increased STI screening in this population, including routine extragenital testing for GC and CT even without reported exposure at these sites.

**Disclosures.** All Authors: No reported disclosures

### 1538. Pilot Study of Self-collected Pharyngeal Testing for Chlamydia and Gonorrhea in the Setting of COVID19 Restrictions

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Session: P-69. Sexually Transmitted Infections

**Background.** Given that many youth and young adults utilize multiple orifices during sexual activity, testing for STIs from multiple anatomical sites can increase rates of diagnosis. However, during the COVID pandemic, obtaining oral swabs by clinical staff was deemed an unacceptable COVID transmission risk and was discontinued in our clinic. To circumvent this obstacle to diagnosis, clinic staff developed a work-around of obtaining patient collected pharyngeal swabs for STI testing. This abstract reviews the results of this pilot intervention.

**Methods.** Patients presenting to an urban youth family planning/STI clinic who desired STI testing and ever engaged in oral sex were offered pharyngeal testing for

chlamydia (CT) and gonorrhea (GC). Patients were instructed on how to obtain an oral sample, and subsequently sent outside of the clinic to obtain their individual sample. Chart review was conducted by clinic staff of a two month period during which this protocol was in place, and the following variables were collected: gender, sexual orientation, race/ethnicity, and STD testing results by anatomic site. Simple descriptive statistical analysis was used.

**Results.** 146 patients received a GC/CT test from > 1 anatomical site, with 34 patients having > 1 positive result. All pharyngeal samples were self-collected. Four patients were positive for GC/CT from throat samples only (12% of positive tests). All were biologically female, including one transgender FTM. Sexual orientation was split evenly between bisexual and heterosexual. Reported race/ethnicity included two African-American, one white, and one "Filipino". For comparison, of the overall sub-sample of patients with positive GC/CT results, patients identified as 53% female, 44% male, and 3% FTM; 74% "straight", 15% bisexual, 9% "gay", and 3% did not disclose; 29% white, 50% African-American, 21% unknown as other; and 11% Hispanic. Twelve patients were positive for GC/CT from the throat and either rectum and/or urine/vagina/endocervix (35% of positive tests).

**Conclusion.** Our experience demonstrates that obstacles created by the COVID crisis can be circumvented with creative strategies. We were able to pick up 12% and 35% of total infections by self-collected pharyngeal swabs in throat only and throat plus other sites, respectively.

**Disclosures.** All Authors: No reported disclosures

### 1539. Pilot Study of Sexual Networks and Sexually Transmitted Infection Risk in a Military Population

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Session: P-69. Sexually Transmitted Infections

**Background.** In the U.S., military members experience a higher incidence of sexually transmitted infections (STIs) than the age and gender-adjusted general population, placing a costly and preventable burden on the military health system (MHS). These increased rates are likely due to differences in both individual and network level risk factors. To assess the feasibility of a survey examining the impact of sexual network risk factors on risk, a survey assessing STI individual and network level risk factors to include a 90-day sexual partnership inventory was piloted at a single military medical center.

**Methods.** A sample of 50 military beneficiaries completed a computer-assisted self-interview (CASI) cross-sectional egocentric survey administered on a tablet. Demographical and clinical data were captured from the electronic medical record. Non-parametric statistics were used to analyze the data.

**Results.** 45 of 50 subjects (90%) completed the survey. 40 (88%) subjects completed at least one partnership survey and reported 1 to 20 partners per subject. Respondents were mostly active duty (91.8%) and had been active duty for less than five years (68.2%). Common risk behaviors were explored and included meeting partners online (68.75%) and having partners who use drugs (48.94%) or are heavy drinkers (44.68%). Partnership inventories suggest sexual concurrency and disassortative mixing on age, racial and ethnic groups, and military service.

**Conclusion.** While previous studies demonstrate that service members will complete sexual risk behavior surveys, this pilot egocentric partnership study demonstrates their willingness to provide detailed information on risk behaviors as well as detailed information on sexual partnerships. While we report on statistically significant associations, these may be subject to bias due to the underlying characteristics of the source population. As a result, these data will not likely be reflected in the full study population. 80% of pilot subjects completed the questionnaire and submitted at least one partnership survey, indicating the possibility of gathering more diverse individual sexual risk questionnaires from active duty service members. Based on these data, a multisite study of sexual networks was implemented in the MHS and is currently under analysis.

**Disclosures.** All Authors: No reported disclosures

### 1540. Prevalence and Risk Factors associated with HIV and Syphilis Co-infection in the African Cohort Study

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