factors associated with prevalent and incident BV in women and their sexual partners. Data from the cross-sectional study will be presented.

Methods WSW were recruited using internet, festival and media-based promotion and were ineligible if they are postmenopausal, pregnant or had not had a female sex partner (FSP) in the last 18 months. Study-kits containing consent forms, questionnaires, swabs and slides were sent to participants and returned by post. At baseline, women self-collected three consecutive vaginal swabs and slides at weekly intervals and completed detailed demographic behavioural data via an online or paper-based questionnaire. Gram-stained self-collected vaginal smears (SCVS) were scored by the Nugent method. Women were classified as having prevalent BV if ≥1 slides had a Nugent score (NS) of 7–10, intermediate flora if ≥1 slides had a NS=4–6 and normal flora if all three slides had a NS=0–3. Univariate and multivariate analyses were performed using SPSS to examine the association between BV and behavioural practices.

Results In February 2011, 342 (86%) women had been recruited and 314 (92%) women had completed all cross-sectional requirements. Median age was 31 years (range 19–49), 309 (98%) reported a FSP in the last year, 253 (81%) had a current sexual partner (95% female) and 246 (78%) reported vaginal sex with a male in the past. The prevalence of BV was 29% (95% CI 20% to 38%) in women providing ≥1 SCVS. Two hundred and seventy-five (88%) women provided all three SCVS of which 178 (65%) had stable normal flora on all slides, 56 (20%) stable BV and 41 (15%) had unstable flora transitioning between ≥1 Nugent categories over the three slides. Multivariate analysis found that being a current smoker of cigarettes or marijuana (Adjusted OR AOR =2.2; 95% CI: 1.3% to 3.8%) and having >5 lifetime FSPs (AOR =1.8; 1.0 to 3.01) was significantly associated with prevalent BV. A borderline association with FSP receptive oral sex (AOR=3.2; 0.9 to 11.0) was evident. BV was not associated with increased age or numbers of male partners.

Conclusion Prevalent BV is common (30%) in WSW and is strongly associated with smoking and increasing numbers of FSPs but not male partners. A high proportion of WSW had stable vaginal flora (85%) over a 3 week period. This study aims to advance our understanding of epidemiology of BV in WSW.

O1-S05.04 INCREASED RISK FOR *TRICHOMONAS VAGINALIS* IN AN URBAN POPULATION OF YOUNG ADULTS

doi:10.1136/sextrans-2011-050109.28

[1]S Rogers, [2]C Turner, [3]W Miller, [4]A Roman, [3]M Hobbs, [1]S Tan. [1]*Research Triangle Institute, Washington, USA;* [2]*City University of New York Flushing, USA;* [3]*University of North Carolina, Chapel Hill, USA;* [4]*University of Massachusetts, Boston, USA*

Background The epidemiology of *T vaginalis* (TV) in the general population is not well understood, although it is reported to be the most common curable sexually transmitted infection worldwide. Surveillance data do not exist either for US national or local populations. Infection with TV increases the likelihood of HIV acquisition and has been associated with adverse health outcomes in men and women.

Methods The Monitoring STIs Survey Program (MSSP) used telephone audio computer-assisted self-interview technology and specimen collection kits sent out and returned by mail to monitor *T vaginalis* and *C trachomatis* among a probability sample of 15 to 35-year-olds residing in Baltimore, MD from September 2006 through June 2009. Specimens were tested using TMA-based APTIMA assays. Weighted estimates of infection prevalence by respondents' sociodemographic and behavioural characteristics were tabulated using poisson regression.

Abstract O1-S05.04 Table 1 Estimated prevalence of trichomoniasis and chlamydial infection by respondent characteristics: monitoring STIs in the population, 2006–09

Characteristic	N	*T vaginalis* Wtd.% (95% CI)	p	*C trachomatis* Wtd.% (95% CI)	p
Total	2120	7.5 (6.0 to 9.0)		3.9 (2.7 to 5.0)	
Sex					
Women	1322	11.8(9.6 to 14.3)		3.4 (2.4 to 4.8)	
Men	798	2.9 (1.6 to 5.1)	<0.001	4.5 (2.8 to 7.0)	0.35
Race					
Black	1299	11.2 (9.1 to 13.6)		6.0 (4.4 to 8.1)	
Non-black	821	2.0 (1.2 to 3.5)	<0.001	0.7 (0.2 to 2.0)	<0.001
Age					
15–19	576	7.3 (4.7 to 11.2)		6.6(4.2 to 10.5)	
20–24	460	10.6 (7.6 to 14.7)		5.9 (3.6 to 9.7)	
25–29	501	5.6 (3.7 to 8.5)		1.7 (0.8 to 3.3)	
30–35	583	6.6 (4.5 to 9.6)	0.39	1.2 (0.5 to 2.8)	<0.001
3+ partners past year					
Yes	445	10.6 (7.6 to 14.6)		8.2 (5.5 to 12.0)	
No	1674	6.6 (5.1 to 8.4)	0.02	2.7 (1.8 to 4.2)	<0.001
New partner in past 3 months					
Yes	435	11.7 (8.2 to 16.4)		9.3, (6.3 to 13.6)	
No	1657	6.3, (5.0 to 8.1)	0.004	2.5 (1.6 to 3.8)	<0.001
Previous STI					
Yes	503	12.8 (9.6 to 17.0)		4.5 (2.7 to 7.2)	
No	1372	6.7 (5.2 to 8.8)	0.001	4.3 (3.0 to 6.1)	0.91

Results 2120 of 2936 respondents (72.2%) provided specimens for STI testing. The prevalence of TV was 7.5% (95% CI 6.0% to 9.0%) and was significantly higher among women (11.8%) than men (2.9%; PR=4.0, 95% CI 2.2% to 7.4%). Among Black females, the estimated prevalence was 16.1% (95% CI 1.0% to 19.8). Levels of TV infection ranged from 7.3% (95% CI 4.7% to 11.2) among 15-19 year olds to 10.6% (95% CI 7.6% to 14.7) among those aged 20-24 years and 6.6% (95% CI 4.5% to 9.6) among 30-35 year olds (p=0.39 for linear trend). Infection with *T vaginalis* was more common than infection with *C trachomatis* (3.9%, 95% CI 2.7% to 5.0%; p <0.001). Unlike TV, CT did not vary by gender (women 4.5%, men 3.4%, p=0.35) and infection prevalence was significantly higher among those <25 years of age (p<0.001 for trend). Concomitant TV infection was detected in 23.5% of respondents with CT (PR=3.7, 95% CI 1.9% to 7.7). Both TV and CT were associated with reporting of three or more partners in the past year and a new partner in the past 3 months. TV infection, but not CT, was associated with a previous STI diagnosis (PR=1.9, 95% CI 1.3% to 2.8%) see Abstract O1-S05.04 table 1.

Conclusions: Undetected *T vaginalis* is common among young adults in Baltimore, particularly among women. Nearly one-fourth of respondents with chlamydial infection also tested positive for TV. Unlike chlamydial infection, the prevalence of TV was consistently high across all age groups. Our results provide strong support for routine screening for TV in conjunction with CT in populations at elevated risk of infection.

O1-S05.05 ASSOCIATION BETWEEN *TRICHOMONAS VAGINALIS* AND VAGINAL BACTERIAL COMMUNITY COMPOSITION AMONG ASYMPTOMATIC REPRODUCTIVE-AGE WOMEN IN THE USA

doi:10.1136/sextrans-2011-050109.29

[1]R Brotman, [1]L L Jones, [1]J Sakamoto, [1]P Gajer, [2]K Ault, [1]L Peralta, [3]L Forney, [3]Z Abdo, [1]J Ravel. [1]*University of Maryland, School of Medicine, Baltimore, USA;* [2]*Emory University, School of Medicine, USA;* [3]*University of Idaho, USA*

Background Vaginal bacterial communities are thought to prevent infection by sexually transmitted organisms. Prior work