Abstract P1-S5.28 Table 2 Continued

Characteristics	High-grade lesions						p
	Yes (n=64)		No (n=567)		total (n=631)		
	n	%	N	%	n	%	
Time of AIDS diagnosis							<0.001
1 to 8 years	16	25.0	345	60.8	361	57.2	
9 years or more	48	75.0	222	39.2	270	42.8	
CD4 Cell counting							<0.001
>500 cell/mm^3	1	1.6	126	22.2	127	20.1	
350−500 cell/mm^3	10	15.6	234	41.3	244	38.7	
<350 cell/mm^3	53	82.8	207	36.5	260	41.2	
	64	100.0	567	100.0	631	100.0	

Abstract P1-S5.28 Table 3 Bi and multivariate analysis of associated factor for high-grade lesion of women living with AIDS — São Paulo, Brazil, 2008 to 2009

Users characteristics	Bivariate analysis		Multivariate analysis	
	OR (95% CI)	p	OR$_{aj}$ 95% CI	p
HPV cytological changes				
No	1	—	1	—
Yes	50.4 (12.2 to 208.0)	<0.001	68.6 (11.6 to 404.6)	<0.001
CD4 + Cell counting				
> 500 cell/mm^3	1	—	1	—
350−500 cell/mm^3	5.4 (0.7 to 42.5)	0.11	0.74 (0.1 to 7.3)	0.799
< 350 cell/mm^3	32.3 (4.4 to 236.2)	0.001	24.5 (2.7 to 224.9)	0.005
HDI of home district				
>0.500	1	—	1	—
0−0.500	20.6 (9.6 to 44.2)	<0.001	3.3 (1.1 to 10.8)	0.047
Time of HIV diagnosis (years)				
1 to 8 years	1	—	1	—
>8 years	4.7 (2.6 to 8.4)	<0.001	2.9 (1.3 to 6.5)	0.012
Age level (for AIDS diagnosis)				
Up to 40 years old	1	—	1	—
> 40 years old	3.3 (1.9 to 5.5)	<0.001	2.7 (1.2 − 6.0)	0.019
# Lifetime Sexual partners			—	—
1 to 2	1	—		
3 to 5	1.8 (0.80 to 4.19)	0.153		
6 and more	3.1 (1.32 to 7.33)	0.010		
STI			—	—
No	1	—		
Yes			48.8 (6.71 to 354.2)	<0.001
Race (self-referred)			—	—
White	1	—		
Black	1.5 (0,86 to 2.53)	0.153		
Others	8.7 (2.23 to 34.1)	0.002		

OR: OR (non adjusted), OR aj: OR adjusted.

P1-S5.29 **RELATIONSHIP BETWEEN INCIDENT BACTERIAL VAGINOSIS, GONORRHOEA AND CHLAMYDIAL INFECTION AMONG WOMEN ATTENDING A SEXUALLY TRANSMITTED DISEASE CLINIC**

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Background Interactions between bacterial vaginosis (BV) and inflammatory sexually transmitted infections, such as gonor-rhoea and chlamydial infection, are not well understood. Furthermore, evidence regarding the sexual transmission of BV is equivocal.
Methods We assessed associations between incident BV and incident gonorrhoea and/or chlamydial infection (gonorrhoea/chlamydia), as well as similarities in associations for the two processes, among 645 women attending a sexually transmitted disease clinic in Alabama, who were followed prospectively for 6 months in 1995−1998. We also identified predictors of both incident BV and gonorrhoea/chlamydia and used bivariate logistic regression to determine whether these predictors differed.
Results Participants completed 3188 monthly, follow-up visits. Several factors associated with incident BV involved sexual intercourse: young age (<16 years) at first intercourse (adjusted OR [aOR]: 1.5; 95% CI 1.1 to 1.9), recent drug use during sex (aOR: 1.7; 95% CI 1.2 to 2.5), prevalent trichomoniasis (aOR: 2.8; 95% CI: 1.7 to 4.6) and incident syphilis (aOR: 9.7; 95% CI 1.9 to 48.4). Few statistical differences between potential factors for BV and gonor-rhoea/chlamydia emerged. Specifically, in the adjusted bivariate analysis, we found no evidence that the four sex-related risk factors for incident BV (along with unprotected vaginal acts, which was a

Abstract P1-S5.29 Table 1 Multivariable analysis of factors associated with incident bacterial vaginosis and incident gonorrhoea and/or chlamydial infection*

Factors	Incident BV aOR† (95% CI)	Incident GC/CT aOR† (95% CI)	p value‡
TIME-INDEPENDENT			
Marital status			
Married or cohabiting	referent	referent	0.01
Not married or cohabiting	1.0 (0.6 to 1.6)	7.3 (1.7 to 31.7)	
Race			
Black	2.4 (1.3 to 4.3)	0.9 (0.4 to 1.7)	0.01
White, other	referent	referent	
Age at first intercourse			
<16 years	1.5 (1.1 to 1.9)	1.6 (1.0 to 2.4)	0.78
≥16 years	referent	Referent	
Recent drug use during sex			
Usually or sometimes	1.7 (1.2 to 2.5)	1.7 (0.9 to 3.1)	1.0
Rarely or never	Referent	Referent	
TIME-DEPENDENT			
Prevalent trichomoniasis			
Yes	2.8 (1.7 to 4.6)	1.6 (0.8 to 3.4)	0.22
No	Referent	Referent	
Incident syphilis			
Yes	9.7 (1.9 to 48.4)	5.3 (1.1 to 25.6)	0.52
No	Referent	Referent	
Prevalent candidiasis			
Yes	Referent	Referent	0.03
No	0.9 (0.6 to 1.4)	3.5 (1.2 to 10.6)	
In first week of menstrual cycle			
Yes	Referent	Referent	0.01
No	0.8 (0.6 to 1.2)	2.4 (1.2 to 5.0)	
Unprotected vaginal acts in past month			
0	Referent	Referent	0.20
≥1	1.2 (0.9 to 1.6)	1.6 (1.1 to 2.4)	
Current oral contraceptive use			
Yes	Referent	Referent	0.03
No	1.7 (1.1 to 2.4)	0.9 (0.6 to 1.5)	

*Both outcomes estimated from a single model using generalised estimating equations and alternating logistic regression.
†Adjusted for all characteristics in Abstract P1-S5.29table 1.
‡p Value for difference in the associations between the factor and the two disease outcomes.
BV, bacterial vaginosis; GC/CT, gonorrhoea and/or chlamydial infection; aOR, adjusted OR.

risk factor for incident gonorrhoea/chlamydia) differed in their associations with the two study outcomes. We found evidence that incident BV preceded the acquisition of gonorrhoea/chlamydia (adjusted pairwise OR [aPOR]: 1.6; 95% CI 1.1 to 2.3), and gonorrhoea/chlamydia appeared to precede the acquisition of BV (aPOR: 2.4; 95% CI 1.7 to 3.5).

Conclusions Study findings provide support for the interpretation that BV is sexually transmitted. We found temporal relationships between BV and gonorrhoea/chlamydia in both directions, which suggests that treating one condition might confer protection against the other. However, this effect needs to be demonstrated in future clinical studies.

P1-S5.30 **RELATIONSHIP BETWEEN SYPHILIS AND HIV: LESSONS FROM A NIGERIAN SURVEILLANCE SURVEY**

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Background Sexually transmitted infections (STI) including syphilis are associated with risks of acquiring HIV infection. Behaviours that increase STI also play important role in increasing the risk of HIV. Transport workers are highly mobile population often predisposed to STI including HIV due to the nature of their business. Similarly, they are potential bridge population between female sex workers and the general population. This study assesses relationship between syphilis and HIV among transport workers in Nigeria.

Methods Secondary data analysis of a survey conducted in 2007 among 2233 transport workers in six Nigerian states. Time location sampling was employed. The relationship between HIV and syphilis was evaluated using multivariate logistic regressions while controlling for confounding factors such as demographic, knowledge and behavioural variables.

Results Median age was 33 years with age range: 18–49 years and all participants were male. Syphilis prevalence among transport workers was 1.6%. State-level prevalence of syphilis was: 4.2% in Anambra, 1.1% in Cross Rivers, 0.7% in Edo state, 1.8% in FCT, 0.8% in Kano and 1.9% in Lagos. HIV prevalence was 3.8% with the highest prevalence (6%) in Cross Rivers and the lowest (1.6%) in Kano. Also, 33.5% had genital discharge; 14.5% had genital ulcers/sores; 12.2% used marijuana; 25.0% were away from home for >1 month; 55.5% had secondary education and 67.2% had ever been married. Only 17.3% used condom in the last sex with non-regular partner; 31.0% had sex with a girlfriend in the past 12 months and 4.3% paid for sex in the last 12 months. Syphilis was not associated with HIV infection OR=1.54 95% CI 0.90 to 2.65. However, risks for HIV infection included being away from home for >1 month OR=1.8 95% CI 1.4 to 2.3; sex without condom in the last 12 months OR=1.5 95% CI 1.2 to 1.9; sex with female sex workers OR 1.7 95% CI 1.2 to 2.2 while secondary education was protective with OR: 0.6 95% CI 0.4 to 0.8.

Conclusions More researches are needed to investigate the relationship between syphilis and HIV in Nigeria as little evidence is available from the national survey. These findings have implication of promoting secondary education and condom uptake in non-marital relationships among transport workers in Nigeria.

P1-S5.31 **COINFECTION AND CONCURRENT SEXUALLY TRANSMITTED INFECTIONS (STIs) IN SEXUAL PARTNERSHIPS: POTENTIAL IMPACT OF PARTNER NOTIFICATION AND TREATMENT IN STD CONTROL**

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Background Partner notification and treatment has the potential to be one of the most important strategies in the control of STIs. However, studies indicate that this approach is not often used. Additionally, there is not much information about STIs among sexual partnerships.

Objectives To determine the prevalence of several STIs in sexual partnerships and to estimate the potential utility of partner treatment.

Methods We enrolled males and females 18–29 years of age from a random household sample in 24 cities in Peru and enrolled same-residence sex partners of the participants. Participants and partners responded to demographic and sexual behaviour questionnaires and provided biological samples tested for *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Trichomonas vaginalis*, syphilis, HSV-2 and HIV.

Results Of 2302 couples enrolled, 2163 couples had laboratory results available for either CT or TV and 1696 couples for either HIV, HSV-2 or early syphilis. CT, TV, early syphilis, HSV-2, and HIV were found in 7.1%, 4.4%, 1.2%, 24.8%, and 0.2% of couples, respectively. Among couples in which at least one subject was affected by a specific STIs, both partners had CT in 53 (39.3%) couples, TV in 22 (25.0%) couples, early syphilis in 3 (14.3%) couples, HSV-2 in 215 (51.1%) couples, and HIV in 2 (66.7%). Of couples affected by CT, 18/131(13.7%) had TV; 1/109 (1.3%) had early syphilis; 41/109 (41.6%) had HSV-2; and no one had HIV. Among females affected only by CT, 52.3% of partners had CT and 2.6% had TV; and among those only affected by TV, 13.7% of partners had CT and 26.2% had TV. Among males affected only by CT, 68.8% of partners had CT and 14.3% had TV; and among those affected only by TV, 11.5% of partners had CT and 84.6% had TV.

Conclusions A relatively high proportion of males and females affected by an STI had the same infection than their partners and not an infrequent number had different infections. Strategies to increase utilisation of partner notification and treatment may help STI control. Further review of partner treatment guidelines needs to be performed.

P1-S5.32 **THE DIFFERENTIAL ASSOCIATIONS OF HPV PREVALENCE WITH OTHER SEXUALLY TRANSMITTED INFECTIONS IN HORMONAL AND NON-HORMONAL CONTRACEPTIVE USERS**

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Background This study evaluated the associations of recent sexually transmitted infections (STIs) with cervical HPV prevalence among hormonal and non-hormonal contraceptive users.

Methods Data came from a prospective study conducted in 1046 women aged 20–38 years with normal cervical cytology in