Abstract O2-S5.01 Table 1 Multivariate relations of HIV risk with social capital (components) in Mumbai and Ahmedabad

Scale	Casual partners		Sex with commercial sex worker		Condom use with CSW	
	Model 1 OR (CI)	Model 2 AOR (CI)	Model 1 OR (CI)	Model 2 AOR (CI)	Model 1 OR (CI)	Model 2 AOR (CI)
Mumbai						
BO_communitaraian sense (low)	0.53 (0.32 to 0.86)	0.78 (NS)	0.31 (0.17 to 0.60)	0.47 (0.24 to 0.92)		
BR_particiaption (low)	1.97 (1.19 to 3.27)	1.90 (1.13 to 3.19)	1.60 (NS)	1.71 (NS)		
LI_personal trust in services (low)	2.33 (1.31 to 4.15)	2.39 (1.29 to 4.44)	2.45 (1.08 to 5.52)	2.84 (1.23 to 6.54)		
LI_reciprocal trusting relations with services (low)		2.18 (1.11 to 4.28)	2.96 (1.11 to 7.83)	3.10 (1.16 to 8.31)		
Married or not (ref: married)						0.16 (0.04 to 0.69)
No. of working days in a month (ref: low)						3.83 (1.31 to 11.2)
Income (ref: low)		1.67 (1.25 to 2.23)		1.84 (1.26 to 2.67)		
Income steady/fluctuating (ref: fluctuating)		1.93 (1.08 to 3.45)				
Mode of salary receipt (daily)				1.39 (1.07 to 1.82)		
Ahmedabad						
BO_differences in community (low)				2.34 (1.34 to 4.11)	4.65 (2.39 to 9.02)	6.71 (3.31 to 13.6)
BO_personal trust and help (low)	0.36 (0.23 to 0.57)	0.36 (0.23 to 0.58)	0.37 (0.19 to 0.72)	0.30 (0.15 to 0.62)	0.29 (0.14 to 0.61)	0.28 (0.13 to 0.64)
BO_generalized trust & help (low)	1.96 (1.34 to 2.87)	2.03 (1.36 to 3.03)	2.68 (1.59 to 4.51)	3.35 (1.88 to 5.98)	3.38 (1.83 to 6.23)	4.04 (2.14 to 7.62)
BR_generalized trust & help (low)			2.00 (1.17 to 3.42)	1.90 (1.07 to 3.37)	2.51 (1.26 to 4.99)	2.61 (1.27 to 5.37)
Living with wife or alone (ref: with wife)		1.77 (1.45 to 2.17)		2.42 (1.76 to 3.33)		2.50 (1.73 to 3.61)
Nature of job (ref: daily wage)		1.49 (1.21 to 1.82)				
No. of working days in a month (ref: low)				2.77 (1.12 to 6.88)		
Income (ref: low)				1.66 (1.14 to 2.43)		1.90 (1.22 to 2.96)
Income steady or fluctuating (ref: steady)		1.78 (1.26 to 2.51)		1.91 (1.18 to 3.10)		2.31 (1.29 to 4.14)
Mode of salary receipt (daily)				68 (0.48 to 0.96)		0.61 (0.43 to 0.88)

The table has results from the final logistic regression models.
The low, medium and high category of social capital were treated as categorical categories and high social capital category for each component was selected as the reference category.
Model 1: Social Capital Domains Only; Model 2: Social Capital Domains and Co-factors.
Only significant associations shown here.
High value of social capital measures is the reference category.
BO, Bonding social capital; BR, Bridging Social Capital; LI, Linking social capital.

capital. In Ahmedabad, bonding social capital at high levels was associated with lower risk behaviour while linking social capital at high level was associated with higher risk. On the other hand, high levels of bridging social capital and components of bridging social capital were protective of HIV risk in both the cities see Abstract O2-S5.01 table 1.

Conclusion This study was able to explore the mediating effect of social capital on migrants' HIV risk at the domain levels. Bridging kind of social capital with the host community and migrants from other states was associated with lower HIV risk behaviour. Further research should be undertaken in different epidemiological contexts to validate the findings of this study.

O2-S5.02 THE ASSOCIATION BETWEEN ALCOHOL USE AND HIV SEXUAL RISK BEHAVIOURS

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Background This study aimed to investigate the associations between alcohol use and sexual risk behaviour in migrant men and women living in Johannesburg.

Methods 1465 men and 1008 women living in six hostels and five neighbouring informal settlements respectively were surveyed. Using logistic regression, the association between five measures of alcohol use (current alcohol consumption, frequency of drinking, drunk in the past week, daily alcohol consumption, drinking habit) and five sexual risk behaviours (transactional sex, inconsistent condom use, coercive sex, multiple sexual partners and concurrency) in men and women was assessed.

Results More men than women reported current alcohol use (42% vs 12%). Among current drinkers, 23% of men and 29% of women reported being drunk in the past week. Consistent condom use was low in both men and women (6%). More men (53%) than women (7%) reported multiple sexual partnerships. In men, frequent drinking (Adjusted OR [AOR] for upper category: 3.1, 95% CI: 1.7% to 5.5%) and being drunk in the past week (AOR: 3.3, 95% CI: 1.8% to 6.0%) were associated with coercive sex. Frequent drinking (AOR for upper category: 1.5, 95% CI: 1.1% to 2.2%) and being drunk (AOR: 2.0, 95% CI 1.4% to 3.0%) was also associated with multiple sexual partnerships. In women, frequent drinking (AOR for upper category: 3.0, 95% CI: 1.0% to 8.9%) and being drunk in the past week (AOR: 3.4, 95% CI: 1.3% to 9.4%) were experiencing coercive sex. Alcohol use did not appear to influence reported condom use.

Conclusions Alcohol use was associated with several high-risk sexual behaviours in both men and women. Future HIV prevention interventions should focus on the associations between alcohol, partner violence and HIV risk.

O2-S5.03 SEX, DRUGS AND STRUCTURAL INTERVENTIONS: UNSTABLE HOUSING ASSOCIATED WITH INCREASED HIV RISK BEHAVIOUR IN A COHORT OF PEOPLE ON TREATMENT IN BRITISH COLUMBIA, CANADA

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Background Unstable living conditions may increase risk for HIV exposure and transmission. This analysis examines housing as a

structural factor associated with drug and sexual risk behaviours among individuals accessing antiretroviral treatment (ART). We hypothesised that unstable housing is significantly associated with sex exchange and recent injection drug use (IDU).

Methods The LISA cohort is a cross-sectional study of individuals on ART in British Columbia. Interviewer-administered surveys collect information regarding housing, drug use, utilisation of health services and other clinically relevant socio-demographic factors. Clinical variables, such as CD4 count and viral load, were obtained through longitudinal linkages with the Drug Treatment Program (DTP) at the BC Centre for Excellence in HIV/AIDS. In order to examine the effect of housing status on HIV risk behaviour, multivariate logistic regression was used with three outcomes: sex exchange, unprotected intercourse and recent IDU.

Results Between 2007 and 2010 approximately 1000 participants were interviewed. The survey was modified part way through the study to stratify sexual behaviour based on partner-type. This analysis is thus restricted to 477 interviews with full information on all outcomes. Median age was 45 (IQR=39–51) and 29.8% (142) were female. After adjusting for potential confounders, unstable housing was significantly associated with a history of exchanging sex for food, money or drugs (Adjusted OR [AOR]=1.92; 95% CI=1.11% to 3.33%) and recent IDU (AOR=2.39; 95% CI=1.41% to 4.03%). Unprotected sexual intercourse with regular partners, casual contacts and clients, was not significantly associated with housing status.

Conclusion Greater levels of sexual exchange and injection drug use among unstably housed populations are associated with aspects of transient living conditions, as well as the increased need and opportunity for sexual exchanges for food, shelter, drugs and money. Our findings suggest that secure and affordable housing is an important structural intervention that may reduce HIV risk behaviour.

O2-S5.04 OUTLIER POPULATIONS: HEIGHTENED RISK FOR HIV, HCV AND HIV/HCV CO-INFECTION AMONG SOLVENT-USING INJECTION DRUG USERS

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Introduction Globally, substantial heterogeneity in the prevalence of HIV and other sexually transmitted infections (STIs) among most at-risk populations (MARPs) has been demonstrated. Examining factors related to heterogeneity can inform targeted programming. In Winnipeg, Canada, particularly high risk for HIV and hepatitis C (HCV) has been observed in injection drug users (IDUs) with a history of solvent use (S-IDUs). However, comparisons to other MARPs have been limited. Thus this study examined the association between HIV/STIs and S-IDUs in comparison to IDUs and other MARPs.

Methods Data were from a 2008 to 2009 cross-sectional study of Winnipeg MARPs (IDUs, sex work- and street-involved individuals); subjects were recruited through respondent-driven sampling (RDS) methods. Adjusted ORs (AORs) from multivariable logistic regression models were estimated, examining the risk of HIV, HCV and HIV/HCV co-infection, and corrected for RDS-chain clustering using generalised estimating equations.

Results Total sample was 499, of which 13% recently injected drugs (ie, last 6 months), 5% recently inhaled solvents, 6% were recent S-IDUs, and 76% did not inject drugs or inhale solvents. HIV and HCV prevalence among recent S-IDU was 21% and 79%, respectively; HIV/HCV co-infection was 18%. In multivariable models, S-IDUs were at highest risk of HIV (AOR: 3.6, 95% CI: 1.6% to 7.9%; p<0.001), HCV (AOR: 19.3, 95% CI: 6.8% to 58.3%; p<0.001) and HIV/HCV co-infection (AOR: 6.0, 95% CI:2.5% to 14.7%; p<0.001). Comparatively, AORs for IDU-only were 3.3 (95% CI: 1.3% to 7.6%), 3.8 (95% CI: 2.3% to 7.5%) and 4.9 (95% CI: 2.1% to 14.7%). Among lifetime S-IDUs, elevated risk for HIV (AOR: 7.4, 95% CI: 2.3% to 26.2%) and HCV (AOR: 22.7, 95% CI: 11.0% to 47.0%) was observed, but not for HIV/HCV co-infection.

Conclusions Solvent use occurs among the most marginalised of MARPs, representing unique and complicated drug use trajectories. As the HIV epidemic in Canada becomes increasingly complex, examination of outlier populations such as S-IDU can inform public health by elucidating important pathways by which structural, environmental and individual factors interact to create the highest risk for HIV/STIs and other bloodborne pathogens.

O2-S5.05 ARE MSM LOOKING FOR LESIONS? EXAMINING SELF AND PARTNERS FOR SYPHILIS

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Background Syphilis rates among men who have sex with men (MSM) in the US are rising. In 2009, 62% of reported primary and secondary syphilis cases in the U.S. were among MSM. Self- and partner-examination for primary syphilis (painless chancre) might increase early detection and treatment and reduce transmission. As the first step in a study to increase syphilis lesion awareness, we collected baseline data on rates of self- and partner-examination.

Methods Data were collected from five MSM STD or infectious disease clinics in the US before and after introduction of brochures with pictures and information about syphilis signs, transmission, and prevention. Surveys included questions about demographics, sexual behaviours, syphilis knowledge and self- and partner-examination. Data were analysed using SAS V.9.2.

Results From September 2009 to January 2011, 586 sexually active men completed a survey; 124 (21%) from Arizona, 128 (22%) from the District of Columbia, 202 (34%) from Florida and 132 (22%) from Georgia; 542 (92.5%) reported having sex with men only and 44 (7.5%) reported having sex with men and women. Most participants (334, 57%) were aged 18–39 years, 240 (41%) were 40–59 years and 12 (2%) were older than 60 years; 222 (38%) reported one partner, 180 (31%) 2–3 partners, 133 (23%) 4–10 partners, and 51 (9%) >10 partners in the last 3 months or since their last clinic visit. Most participants correctly identified oral (510, 87%), anal (529, 90%) and oral-anal sex (487, 83%) as ways to transmit syphilis. Few recognised frottage that is, rubbing against someone (112, 19%) and kissing (196, 34%) as other modes of transmission. Over 50% reported self-examination of mouth, penis and skin at least once a week, whereas less than half reported partner-examination of these areas (Abstract O2-S5.05 table 1). Less than 50% reported self- or partner-examination of anus at least once a week. Rates of self-examination did not vary by number of partners or age; whereas, examining partner's mouth, penis and skin was less frequent (p<0.05) among MSM with >3 partners.