

**Methodology** A total of 721 IDUs (551 male, 170 female) enrolled in SHALOM were interviewed by peer educators in early 2012 as part of programme risk assessments during routine outreach. Bivariate and multivariate analyses were conducted to compare the male and female clients.

**Results** Female IDUs engaged in much higher risk behaviour than male IDUs, injecting over twice the rate of men (20.7 vs. 10.0 times per week,  $p < 0.001$ ). Sexual activity was higher among women - a mean of 18 sex acts per week compared to less than one per week among men ( $p < 0.001$ ). Women were significantly more likely to be poly-drug users and regularly drink alcohol. Women were significantly less educated, less likely to have a regular sexual partner and more likely to be widowed or divorced. They were more likely to be working full-time (mostly as sex workers).

Linear regression analysis for female IDUs ( $n = 169$ ,  $R^2 = 0.46$ ) showed that older age, more sex acts per week and poly-drug use were significantly associated with greater injecting frequency.

Linear regression analysis for male IDUs ( $n = 386$ ,  $R^2 = 0.21$ ) showed that older age and heroin use were significantly associated with greater injecting frequency.

**Conclusion** Female IDUs have increased risk of HIV compared to their male counterparts due to more frequent injecting (associated with higher income from sex work), sex (mostly paid) and alcohol use. Such high risks require targeted interventions to meet the specific needs of female IDUs.

**Abstract P4.056 Table 1**

Linear regression analysis for female IDUs		
No of Injections per week	Coefficients	P > t
Age	0.384	0.004
No of sex acts per week	0.487	0.000
Type of drug use	4.413	0.003

**Abstract P4.056 Table 2**

Linear regression analysis for male IDUs		
No of Injections per week	Coefficients	P > t
Age	0.184	0.001
Type of drug use	-5.632	0.000

**P4.057** **INVESTIGATING THE HIV KNOWLEDGE-PERSONAL RISK AWARENESS GAP AMONG BLACK AFRICANS IN LONDON, UK**

doi:10.1136/sextrans-2013-051184.0955

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**Background** Black Africans comprise 5.5% of the London population, but account for 1/3<sup>rd</sup> of newly diagnosed HIV cases and 1/3<sup>rd</sup> of diagnosed people accessing care. Current policy encourages targeted interventions to raise HIV awareness and promote uptake of testing in this group. 'Love Safely' is a 10-year West London community outreach partnership promoting HIV awareness and behaviour change. It deploys outreach workers working with a toolkit to engage people.

**Methods** The study was conducted in 2012. A mixed-methods approach involved analysis of data on 1078 clients and interviews/focus groups with 54 informants - partner organisations, outreach workers, clients, and referral services. Behaviour change was measured

through three indicators: (a) recommending family members/friends for a similar visit, (b) exhibiting more careful sexual behaviour (consistent/correct condom use), and (c) accessing HIV testing. Process measures were explored to understand pathways of change.

**Results** The service was effective in penetrating some hard-to-reach groups (men) but less so with others (older people, Muslim faith). Several aspects of knowledge, attitudes and behaviour were influenced by gender, length of UK residency and HIV prevalence in country of origin. Sexual healthcare was accessed from fixed settings but access through mobile units had increased. A high level of HIV knowledge and willingness to discuss HIV issues within social networks was demonstrated, but despite some evidence of behaviour change, awareness of personal risk was low. The main reasons for not attending HIV testing highlighted multi-level (individual, community and service) barriers and had remained unchanged compared to findings from a 2004 evaluation.

**Conclusion** Behaviour patterns are hard to shift and require persistent, robust action to bridge the knowledge-motivation-behaviour gap. Targeted intervention, while necessary, is insufficient. Emphasis on pluralistic, multi-level, joined up approaches may be more effective. Notwithstanding prevailing HIV stigma, people's social networks offer a potentially supportive role in prevention.

**P4.058** **INCORRECT INFERENCES ABOUT MALE CIRCUMCISION AND FEMALE HIV INFECTION RISK: EVIDENCE FROM A RANDOMISED TRIAL IN MALAWI**

doi:10.1136/sextrans-2013-051184.0956

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**Background** Incorrect inferences drawn from large-scale HIV prevention messages may hinder their efficacy. We examined whether individuals who are told that medical male circumcision (MMC) partially reduces female-to-male HIV transmission also erroneously infer a reduction in male-to-female HIV transmission risk.

**Methods** In 2008, nearly 1,000 men in rural Malawi were randomised to receive the information that MMC reduces female-to-male HIV transmission risk, with follow-up in 2009. Data was collected on perceived HIV transmission risks faced by men and women by the circumcision status of the male partner. Descriptive and multivariate regression analyses were used to assess whether beliefs about male circumcision and female HIV risk varied by receipt of information about MMC and by whether individuals believed that that MMC partially protects men from HIV infection.

**Results** Men randomised to information about MMC were more likely to believe that circumcised men faced reduced HIV transmission risks relative to uncircumcised men (50% versus 65%,  $p < 0.01$ ). They were also more likely to believe that sex with a circumcised male would confer lower transmission risks for women vis-à-vis sex with an uncircumcised male (38% versus 50%,  $p < 0.01$ ). Multivariate Ordinary Least Squares (OLS) regression analyses supported these findings and demonstrated that those who internalised beliefs about the risk reduction benefits accruing to men believed, on average, that circumcision conferred a 22 percentage point greater risk reduction ( $p < 0.01$ ) in the probability of HIV transmission from men to women than men who did not believe that MMC protects men. Moreover, instrumental variable analyses indicated that the result from the OLS regression were an underestimation of the true effect.

**Conclusions** Our results point toward the need for male circumcision campaigns to make explicit that male circumcision does not directly protect women from HIV infection.