

**P3.402 EFFECT OF A TAILORED INTERVENTION PACKAGE ON HIV-1 ACQUISITION AMONG YOUNG FEMALE SEX WORKERS IN OUAGADOUGOU, BURKINA FASO**

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**Background** Female Sex Workers (FSWs) represent a major core group of HIV transmission in West Africa, but little data is available on the impact of tailored intervention packages on HIV-1 incidence in this population.

**Method** HIV-seronegative young women aged 18–25 years, living in Ouagadougou, reporting at least 3 sexual contacts per week and 3 different sexual partners during the last 3 months, and not pregnant were enrolled in a prospective cohort. At each 3-months follow-up visit for a minimum period of 12 months, data on sexual behaviour, HIV-1 and HSV-2 serologies and pregnancy testing were collected. The intervention used a tailored prevention-and-care integrated approach, with repeated peer-led HIV/STI education sessions, condoms provision, and medical care. HIV incidence was compared with an expected incidence based on baseline data among FSW and data from the national 2010 DHS. In Ouagadougou, 2.5% (95% CI: 1.5–3.4) of women and 3.4% (95% CI: 1.3–5.5) of FSW clients were HIV-1 infected.

**Results** At screening, HIV prevalence among eligible women was 9% (55/638), and 321 women were enrolled. The median weekly number of sexual partners (clients and regular partners) was 3 (IQR: 2–5). During follow-up, 86% of participants completed 12-months follow-up and no woman seroconverted for HIV-1 (0/405 person-years, 95% CI: 0–0.03). The mean number of regular partners decreased during the intervention (from 2 to 1,  $p < 0.001$ ). Adjusted consistent condom use remained consistently very high with clients between 97% and 99%), and did not increase with regular partners (from 64 to 62%). The incidence of HSV-2 was 11/100 person-years (95% CI: 7–15), and the pregnancy rate was 28/100 person-years (95% CI: 23–32). The expected HIV-1 incidence in this group was 1.23/100 person-years (95% CI: 1.02–1.46).

**Conclusion** Through an impact on the number of regular partners, this tailored intervention package markedly reduced HIV incidence to virtual elimination.

**P3.403 KNOWLEDGE, OPTIMISM REGARDING HIV/AIDS AND SELF-EFFICACY IN CONDOM USE OF THE MALE SEX WORKERS IN THE CITY OF LISBON: THE RESULTS OF THE PROJECT "ENCONTROS (IN)SEGUROS"**

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**Background** This project arises from the lack of information about the reality of the sexual male workers in the city of Lisbon and from HIV/AIDS and other IST prevention projects, adapted to this target audience.

**Methods** Participating in the project 129 male sex workers, with an average age of 28.32 years (SD = 5,860). Most are single (81.4%) and 48.8% identify themselves as homosexual or bisexual (35.7%). 60.5% have a versatile role in sex, while 36.4% claim just be active. Instruments used to conduct this study: the socio-demographic questionnaire and the Questionnaire of Knowledge on HIV/AIDS which consists of 17 multiple-choice questions (yes, no, I don't know). This data was collected through an outreach strategy, with

a field team operating with the audience, addressing the indoor sex work.

**Results** Male sex workers present high level of knowledge on HIV/AIDS (average = 14.92, SD = 2.47, range 0 a 17), however, have low levels of optimism (average = 20.89, SD = 4.53, range 12–48) and high levels of self-efficacy in condom use (average = 61.40, SD = 6.29, range 13–65). The correlation analysis shows that higher levels of optimism were negatively associated with self-efficacy ( $r = -0.203$ ,  $p = 0.029$ ), indicating a moderate but significant negative relationship: the more optimistic, the less self-efficacy in condom use. Statistically significant differences were found in self-efficacy on condom use and sexual orientation; on nationality and condom use in oral sex and also sex role and self-efficacy in condom use.

**Conclusions** This Project has been of the utmost importance in preventing HIV/AIDS and other STI, by regular monitoring and routing of the target audience based on felt needs. The distribution of prevention-material and the relationship established with the audience points in that direction. It's extremely important for the prevention of HIV/AIDS and other STIs among sex workers, work with cognitive and behavioural variables, such as optimism and self-efficacy in condom use.

**P3.404 WITHDRAWN BY AUTHOR**

**P3.405 LEVELS OF ADVERTISED UNPROTECTED VAGINAL AND ORAL SEX OFFERED BY INDEPENDENT INDOOR FEMALE SEX WORKERS IN WEST YORKSHIRE, UK**

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**Background** The objective was to assess the proportion of independent indoor female sex workers (FSW) in West Yorkshire, UK who advertise unprotected sex, and to investigate any association with factors that predict economic need.

**Methods** Data on whether independent indoor FSW (defined as those not advertising via an escort agency or through a parlour) offered unprotected sexual services, along with demographic data, was collected from 462 advertisement profiles of FSW in West Yorkshire from the website [www.adultwork.com](http://www.adultwork.com). One-way analysis of variance and chi-squared statistics were used to test the significance of associations between advertising unprotected vaginal and oral sex, offering anal sex, and FSW age, location and cost of services.

**Results** Unprotected vaginal sex was advertised by 8% of FSW, and unprotected oral sex by 74% of FSW. FSW offering unprotected vaginal sex had significantly lower hourly rates, were more likely to live in the more economically deprived areas of Wakefield and Bradford than in Leeds, and were more likely to offer anal sex.

**Conclusion** Advertised condom use for vaginal and oral sex by independent indoor FSW in West Yorkshire was significantly lower than rates of protected sex found in previous studies based in London and the south of England. FSW advertising unprotected vaginal sex were more likely to have predictors of greater financial need, such as lower hourly rates, provision of higher risk anal sex, and come from more economically deprived areas. They therefore represent a hard-to-reach target group for health promotion.

**P3.406 CONDOM USE TRENDS AMONG FEMALE SEX WORKERS IN VICITS STI CLINICS IN HONDURAS**

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**Background** Implementation of sentinel surveillance for monitoring sexually transmitted infections (VICITS) among female sex workers (FSW) in Honduras began in March 2006 in Tegucigalpa, San Pedro Sula and La Ceiba. VICITS is based on three pillars: STI diagnosis and treatment, condom use promotion and HIV testing and counselling.

**Methods** Patients at least 18 years of age who attended any of the three VICITS clinics in Honduras from 2006 to 2012 (n = 4730) were included. Bivariate analysis of an open cohort of FSW from three VICITS clinics was performed using Epi Info 7. We analysed trends in condom use by partner type comparing the first to the third visit.

**Results** Reported condom use with clients in Tegucigalpa increased from 93.1% (N = 627) in the first visit to 98.1% (N = 322) in the third visit (p = 0.001), in San Pedro Sula from 88.4% (N = 980) to 97.4% (N = 422) (p < 0.001) and in La Ceiba from 93.1% (N = 404) to 98.2% (N = 114) (p > 0.001). Reported condom use with stable partners in the last 12 months was considerably lower, at 12.2% (N = 98), 34.6% (N = 130) and 26.7% (N = 15) in 2012. No statistically significant change in condom use at last sex with casual partners between the first and third visit was observed. Reported condom use at the third visit was 28.1% (N = 57) in Tegucigalpa, 66.7% (N = 33) in La Ceiba and 75.9% (N = 108) in San Pedro Sula.

**Conclusions** We observed a significant increase in condom use with clients of FSW in San Pedro Sula and moderate increase in Tegucigalpa and in La Ceiba (not significantly). Condom use with casual and stable partners remains persistently low and should be the focus of behaviour change interventions to increase condom use with casual and stable partners, both during counselling session in VICITS clinics as well as NGO-based outreach activities.

**P3.407 CHLAMYDIA PREVALENCE AND CONDOM USE DURING 2012 AMONG FEMALE SEX WORKERS ATTENDING STI CLINICS IN HONDURAS**

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**Background** Evidence has shown that efforts targeted towards controlling STI to maintain lower prevalence rates among key populations slows the spread of the epidemic to the general population. The question is: What is Chlamydia prevalence in sex workers attending STI clinics by work venue? Implementation of the sentinel surveillance for STI among FSW in Honduras began in March 2006 in Tegucigalpa, San Pedro Sula and La Ceiba. VICITS is based on STI diagnosis/treatment, condom promotion and counselling.

**Methods** From 2006 to 2012 we collected information about STI and behaviour of female sex workers in clinical history and analyse with Epi Info 7 the characteristics of participants by time, place and person. A bivariate analysis of an open cohort from 2007 to 2012 was performed. We compared the Chlamydia prevalence by work venue (venue-based versus street-based) and calculate p value by X<sup>2</sup>.

**Results** During 2012, 761 FSW attended: 205 in Tegucigalpa, 438 in San Pedro Sula and 118 in La Ceiba. Median age was 27 years with 6.4 years of formal education. Chlamydia prevalence stood at 11.6% (N = 301) in San Pedro Sula, 4.2% (N = 144) in Tegucigalpa and 4.1% (N = 49) in La Ceiba. Condom use in last sex with client was reported at 97.8% (N = 179) in Tegucigalpa, 97.5% (N = 325) in San Pedro Sula and 98.9% (N = 93) in La Ceiba. In street-based FSW from San Pedro Sula, chlamydia decreased from 8.7% in 2007 to 3.6% in 2012 (p > 0.001). However it increased in venue-based FSW from 7% in 2007 to 13.5% in 2012 (p > 0.001)

**Conclusions** Reported condom use is high, yet Chlamydia prevalence remains elevated, especially in venue-based FSW in Pedro Sula. As 70% of FSW attending the clinic are venue-based, this increases overall prevalence results for that site but not statistically significantly.

Behavior change activities should be expanded, especially among venue-based FSW.

**P3.408 SEX WORK INVOLVEMENT PREDICTS POOR VIRAL LOAD SUPPRESSION AMONG PEOPLE WHO INJECT DRUGS IN A CANADIAN SETTING**

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**Introduction** In addition to its role in HIV disease progression, recent studies have demonstrated the crucial function of plasma HIV-1 RNA viral load (pVL) on HIV transmission. However, there is limited empiric research on virologic outcomes among people who use illicit drugs (PWID) and are engaged in sex work. The main objective of this study was to investigate the relationship between sex work and pVL suppression among PWID in Vancouver, Canada.

**Methods** Data were derived from the AIDS Care Cohort to evaluate Exposure to Survival Services (ACCESS), an ongoing prospective cohort of HIV-positive PWID linked to comprehensive clinical information in a setting of universal no-cost HIV care. Using generalised estimating equations (GEE), we studied the longitudinal relationship between sex work and pVL suppression, defined as < 500 copies HIV RNA per millilitre. In addition, we tested whether adherence to antiretroviral therapy (ART) mediated the relationship between sex work involvement and pVL suppression.

**Results** Between May 1996 and May 2012, 608 ART-exposed participants were included in the study and completed 2458 person-years of observation. In a multivariate model adjusted for possible confounders, sex work was independently associated with poorer odds of pVL suppression (Adjusted Odds Ratio [AOR] = 0.65; 95% confidence interval [CI]: 0.46 – 0.92). Using a validated measure of pharmacy refill, we found that adherence mediated this relationship (Sobel test statistic = 4.44, p < 0.01).

**Conclusions** In this study, we found that PWID were less likely to experience virologic control during periods of engagement in sex work, a relationship mediated by adherence. In light of these findings, interventions to improve adherence to ART among individuals engaged in sex work are urgently needed to help produce the maximum HIV treatment and prevention benefit of ART among PWID.

**P3.409\* SEXUAL HEALTH IN THE ADULT FILM INDUSTRY (AFI): ENVIRONMENTAL BARRIERS AND FACILITATORS OF SEXUALLY TRANSMITTED INFECTION (STI) TRANSMISSION**

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**Background** Adult film is a legal form of sex work in the U.S. that places performers at heightened risk of acquiring an STI. However, very little public health research exists on the environmental factors that influence STI transmission in the AFI.

**Methods** We explored the nature of the AFI's STI risk environment in semi-structured in-depth interviews (N = 28) with performers, producers, directors and key informants from December 2012 through February 2013. Recruitment was conducted via purposive and snowball sampling. Interviews took place in-person and via phone. Data were analysed using an inductive approach in *Atlas.ti*.

**Results** Participants described facilitators and barriers to STI transmission at the policy, economic, and social levels. On the