

factors including self stigma, lack of Peer interaction, and less awareness about services in the DIC.

**Method** Community consultations were done initially to know the barriers to accessing services in the DIC. As physical appearance goes a long way in determining how an individual is perceived by oneself and others around, introducing sessions on beauty and healthcare by a trained beautician, was felt suitable in attracting sex workers to the Drop in Centre. A beautician was hired and oriented towards the program. The primary focus of the sessions was to showcase and teach the sex workers basic skills in dressing well and looking good using quick and cost-effective ways. Apart from this the beautician also provided few beauty services which was accessed by the sex workers. These services were charged nominally so that the amount was used to replenish the cosmetics and makeup materials. Other crucial aspects of health, such as cleanliness, hygiene and prevention of STI, female condom demonstration and distribution were covered during counselling session and one to one interactions. This innovative approach aimed towards increasing uptake and access of services proved cost effective and was received well by the most vulnerable, young sex workers, attracting them to the DIC.

**Results** As a result of introducing these sessions in the DIC 25 young sex workers were accessing services from the drop in centre every week. There was a steady increase in testing for STI in the introductory months itself. A peer network among the young sex workers was initiated and this helped the project to ensure that access to STI services were regular by this community. This innovative approach acted as a catalyst to improve the self-esteem of sex workers and ensured access to services there by reducing their vulnerability.

**Conclusion** It is imperative for prevention programs to evolve and find newer and innovative methods to address the changing needs of vulnerable communities like the female sex workers. This strategy has proved to attract young sex workers there by effectively providing them STI and other services within the program.

**P2-S2.23 MEASURING THE IMPACT OF HIV PREVENTION PROGRAMME ON HIV/STI PREVALENCE AND CONDOM USE IN KARNATAKA: A CASE-CONTROL APPROACH**

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**Background** The important goal of Avahan programme is to reduce HIV transmission among female sex workers (FSWs) and MSM-T by increasing consistent condom use, reducing risk behaviour and timely treatment of sexually transmitted infections. In order to assess the impact of programme exposure on these outcomes, many of the earlier studies have done impact analyses using periodical Integrated Biological and Behavioural Surveys (IBBAs). Since these studies were cross-sectional in nature, they could not give true impact of programme exposure in the absence of a suitable control group. Therefore, the fact that results may have not occurred independently of the intervention, instead reflecting natural trends in HIV/STI prevalence cannot be ruled out.

**Methods** Using first two rounds of IBBAs conducted during 2005–2006 and 2008–2009 respectively in four districts of Karnataka namely Belgaum, Bellary, Shimoga, and Bangalore, we use Propensity Score Matching (PSM) method to demonstrate the true effect of different components of programme exposure on HIV/STI prevalence and consistent condom use with all partners. By creating a proxy group of controlled individuals (those individuals who are not exposed to programme), PSM method compares the outcome measures with each respective cases who were exposed to programme. Further, Principal Component Analysis (PCA) is used to generate a composite index by combining a set of programme

exposure to analyse whether greater access to programme results into to better outcome.

**Results** Findings suggest that consistent condom use was higher with occasional clients in comparison to the regular clients cutting across all the districts. The consistent condom use was highest with occasional clients and regular partner in Belgaum (about 92 and 78 percent respectively) while lowest in Shimoga (55% and 48% respectively). The extent of condom use increased for both regular and occasional partners from first survey to second one. Result shows that about 12% FSWs in Belgaum reported any STI symptoms whereas it was about more than 9% in rest of the districts. Findings further revealed the fact that greater the access to program, better was the outcome indicators. The application of PSM method clearly suggested the fact that among all the programme indicators contact of the peers with sex workers has significant positive impact on consistent condom use and HIV/STI reduction. Though the prevalence of HIV/STI was less among those sex workers who visited to clinic compared to the other groups, it was not statistically significant.

**Conclusions** PSM is a better alternative method to analyse the impact of programme response in the absence of a real control group. Findings clearly conclude that Peer-led Outreach “strategy is successful in scaling up HIV prevention programme, nevertheless, focus of peers on motivating key population to clinic may also contribute to HIV/STI reduction and greater condom use.”

**Social and behavioural aspects of prevention poster session 3: General Population**

**P2-S3.01 STI RISK AMONG PERSONS ATTENDING BURNING MAN IN 2010**

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**Background** Burning Man is a week-long event held annually over Labour Day in the Nevada desert, with over 50 000 attendees in 2010. We aimed to assess the potential for STI transmission among San Francisco attendees and the availability and acceptability of safer-sex services at Burning Man.

**Methods** We conducted a survey among a convenience sample of persons who attended Burning Man in 2010. An online questionnaire on demographics, sexual practices, and safer-sex services at Burning Man was created on SurveyMonkey and advertised on two email lists, one for all attendees and one for those living in San Francisco. Attendees were invited to participate anonymously from 1 week through 6 weeks after the event. We conducted a descriptive analysis of the responses.

**Results** Of the 1477 persons who completed the survey during 10 September–22 October 2010, most were heterosexual men (45.1%), heterosexual women (30.0%), or men who have sex with men (12.4%); of white race/ethnicity (86.5%); and from 25 to 44 years of age (62.5%). The majority (70.6%) had attended the event in prior years, and 17.8% resided in San Francisco. Over one quarter (28.5%) had been previously diagnosed with an STI. Of the 69.8% who reported having oral, vaginal, or anal sex at Burning Man, almost half (43.5%) reported sex with new partners. Although most attendees (86.3%) noticed that condoms were available at the event, nearly one quarter (23.0%) of respondents with new partners had intercourse without a condom, of whom two thirds (64.9%) did not plan to test for STIs during the month after the event. Of those planning to test, 49.3% planned to test with a private doctor, 23.9% at a community clinic, and 19.7% at an STI clinic. Only 2.6% of attendees reported that STI testing was available at the event; 41.3% said they would use the service if it were available.

**Conclusions** Although some safer-sex services were available at Burning Man in 2010, attendees reported unprotected intercourse with new partners during the event, a behaviour that confers high risk for STI acquisition. Large gatherings such as Burning Man might present opportunities for rapid STI transmission among geographically diverse sexual networks. Local health jurisdictions, both in the host location and those in which event attendees reside, should consider further assessment of STI transmission and prevention at Burning Man and similar events.

### P2-S3.02 LATENT CLASS ANALYSIS OF SEXUAL RISK PATTERNS AMONG HETEROSEXUALLY-IDENTIFIED, SOCIALLY MARGINALISED MEN IN URBAN, COASTAL PERU

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**Introduction** We explored patterns of sexual risk behaviour in a population of heterosexually-identified Peruvian men using latent class analysis, a technique that creates classes based on response patterns to questions related to a latent variable. In this study, the latent variable of interest is sexual risk behaviour.

**Methods** We used data from the Peru site of the National Institute of Mental Health (NIMH) Collaborative HIV/STD Prevention Trial to investigate patterns of high-risk behaviour among heterosexually-identified men (n=2109). Seven sexual risk behaviours were analysed in latent class analysis to group men into risk classes. These self-reported behaviours included using drugs in the past month, using alcohol or drugs prior to sex, having 3 or more sex partners in the past 6 months, having concurrent sex partnerships, exchanging sex for money, and having a male sex partner in the past 6 months.

**Results** Four latent classes of risk were identified, of which two classes had lower probabilities of these risk behaviours and two classes had higher risk classes probabilities of these risk behaviours. Increasing probability of risk behaviours by classes was significantly correlated with increasing reports of unprotected sex (p value for trend test <0.001). HIV/STI prevalence was elevated in all classes and prevalence increased with increasing probability of reporting the risk behaviours, although the differences were not significant. The risk behaviours in two of the latent classes identified were primarily related to alcohol and drug use.

**Conclusions** Risk behaviours in this population of heterosexually-identified men vary by latent class; however, given HIV/STI prevalence in each class all require prevention interventions. Interventions should also focus on alcohol and drug use, as these are important risk factors for this population. Future behavioural interventions for the prevention of HIV/STI infection may benefit from this information by tailoring messages to fit the observed patterns risk.

### P2-S3.03 EXPLORING PERCEPTIONS OF THE SOCIAL DETERMINANTS OF STIS IN AFRICAN AMERICAN COMMUNITIES OF THE USA

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**Background** African Americans (AAs) make up 12% of the US population, yet they account for about half of all reported chlamydia and syphilis cases, and 70% of gonorrhoea cases. Targeted, culturally sensitive interventions are needed to address these disparities. This study sought to explore how AAs perceive STIs in

their communities, and what they feel should be done to address the problem.

**Methods** Triads (n=31) and individual interviews (n=64) were conducted with sexually active, heterosexual AA adults, ages 18-45, in four communities with high STI incidence. Triads were segmented by age, gender, and urban/rural residence. Interviewers (gender/race-matched) used a semi-structured guide to explore awareness and importance of the STI problem in AA communities, perceptions of contributing factors and high-risk groups, and suggested solutions. Discussions were audio-taped and transcribed. A team of three analysts coded transcripts using QSR NVivo8, based on a codebook developed from identified themes.

**Results** A total of 158 adults participated. Overall, STDs were believed or presumed to be very common in AA communities. Many had heard about the disparate STD/HIV rates on the news/TV or in school. Men were more likely to challenge this, reasoning that AAs are heterogeneous and that STIs are more likely influenced by socioeconomic status (SES) than race. Participants identified youth, low SES groups, drug addicts, Sex workers, homosexuals, and men on the down low as highest-risk groups. Promiscuity and a lack of sexual-health education, care for self/others/future, and health-care access were seen as major causes. Other contributing factors were teen pregnancy/family disintegration, gangs, drugs, school dropouts, unemployment, poverty, boredom, hopelessness, male/female ratio, partner concurrency, and the media. Overall, STIs were seen as a relatively low priority. Yet most felt that change is critical and could be promoted through music, mass media, faith-based/community/organizational, electronic and interpersonal channels. Increasing information, education, and healthcare access; and developing parenting, self-esteem boosting, and mentoring programs were suggested.

**Conclusions** STDs among AAs are recognised as a likely consequence of many underlying social, structural and community ills, which must be addressed to reduce STD disparities. Traditional STD prevention efforts must be supported by non-traditional social/structural interventions.

### P2-S3.04 CONDOM USE AMONG US ADULTS AT LAST SEXUAL INTERCOURSE, 1996-2008: AN ANALYSIS OF GENERAL SOCIAL SURVEY (GSS) DATA

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**Background** Public health programs have sought to increase the use of condoms among persons at risk for transmitting or acquiring sexually transmitted infection. Although data from national health surveys have indicated increasing trends in condom use among adults since the onset of the HIV epidemic, little is known about recent national trends in usage.

**Methods** Questions on condom use at last sexual intercourse were added to the General Social Survey, a nationally representative survey of US adults 18 and older conducted in alternating years, beginning in 1996. Using data from 1996 to 2008, the prevalence of condom use at last intercourse was estimated, and trends and correlates of this measure were evaluated.

**Results** Across the 13-year period, condom use was reported by 20.2% of respondents during their most recent intercourse. Use was significantly higher for sex outside ongoing relationships as compared to within relationships, (46.4% vs 18.1%, respectively) and among those with 2 or more past-year sex partners as compared to one partners (44.7% vs 15.6%). A statistically significant increasing 1996-2008 trend in condom use was detected overall, but not for use within partnership type or by number of partners.