

**P3.101 PREVALENCE OF HIV AND HCV AND HIV TRANSMISSION RELATED RISK FACTORS AMONG PERSONS WHO INJECT DRUG (PWID) IN BARNAUL, RUSSIA**

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**Background** The annual numbers of registered HIV cases in Russia continue to grow. The epidemic is driven by use of contaminated illicit injection equipment. In 2006 HIV prevalence in Barnaul was 9% and Hep C 54%. We sought to understand the epidemic trend and risk factors for HIV transmission in Barnaul.

**Methods** A cross-sectional survey PWID using RDS was conducted between August and October 2012 in Barnaul. PWID were recruited by 5 PWID seeds. Socio-behavioural, HIV and HCV results, and the proportion of previously undiagnosed HIV infections were calculated using RDSAT.

**Results** 500 PWID responded; they were predominantly: male (67.4%, 95% CI 62.3, 72.7), 30–39 years old (54.7%, 95% CI 49.1, 60.1), single (53.3%, 95% CI 48.0, 59.4), unemployed (67.3%, 95% CI 62.1, 72.5), used alcohol in the last month (81.6%, 95% CI 76.3, 86.2). More than half of them injected in the last month (55.9%, 95% CI 50.4, 61.5) from  $\geq 2$  to  $\leq 9$  (74.5%, 95% CI 66.9, 84.0) times a day and 55.9% (95% CI 52.1, 73.8) every day. Predominant drugs during the last month were heroin, marijuana (38.5%, 95% CI 26.0, 47.9) and desomorphine (19.0%, 95% CI 10.9, 23.8). 80.6% of PWID injected in a group with 1–5 injectors in the past one month (95% CI 75.0, 88.3) with  $> 10$  non-sterile injections (59.1%, 95% CI 46.7, 73.6) on average. 85.3% (95% CI 80.5, 92.3) share paraphernalia. Prevalence of HIV was 30.3% (95% CI 25.3, 35.2) and Hep C 72.7% (95% CI 67.5, 77.7). Among those recently tested for HIV, 20% (95% CI 8.8, 28.8) were unaware they were HIV+.

**Conclusions** HIV prevalence more than tripled and Hep C has increased by 25% between 2006 and 2012. Increased prevalence may be attributed to high risk behaviours. Effective essential HIV prevention interventions must be introduced and/or scaled up rapidly to slow the epidemic.

**P3.102 HIV RISK IN PEOPLE WHO INJECT DIFFERENT DRUGS: SYSTEMATIC REVIEW AND META-ANALYSIS**

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**Objective** To compare and understand how the risk of HIV infection in people who inject drugs (PWID) varies by substances and regions.

**Methods** A systematic review and meta-analysis was conducted. EMBASE and Medline were searched to identify cohort studies on HIV incidence in PWID injecting different drugs. HIV incidence rate ratio (IRR) was used to compare risk between drug injectors and non injectors, when possible, or study participants not injecting that substance, otherwise. Pooled estimates of unadjusted IRR (uIRR) were derived using random effects models. Sub-group analyses by substance and region were conducted and sources of uIRR variations explored.

**Results** Eleven cohort studies were included of 3,941 studies screened. HIV incidence by substance was reported for injecting cocaine (8 in Canada, America, Europe), amphetamine-type

stimulants (ATS) (5 in Europe, Eastern Europe, Asia), heroin (9 in all regions), opiates and stimulants in (4 in America, Europe, Eastern Europe) and opiates and sedatives (4 in Europe, Asia). HIV risk for cocaine injectors was 3.5 times greater than non injectors (pooled uIRR = 3.5, 95% CI: 2.9–4.3) with increased sexual and injecting risk behaviours reported by cocaine-, compared to non-cocaine injectors in North America. HIV risk for heroin injectors was almost twice (pooled uIRR = 1.5, 95% CI: 1.4–1.6) that of non-injectors in North America and four times (pooled uIRR = 4.0, 95% CI: 3.2–5.0) in Europe and Asia, respectively. ATS yielded a pooled uIRR of 2.7 (95% CI: 2.2–3.5) for Europe and Asia.

**Conclusion** Variations in the risk of HIV seroconversion found among injectors of different drugs suggest that specific substances influence different behavioural and biological infection pathways. Results support previous findings in Canada and America, that injecting cocaine carries the highest HIV risk. HIV risk across drugs by regions require further exploration. Substances injected should be considered in harm reduction and sexual risk reduction strengthened

**P3.103 SEXUAL ACT WITH MULTIPLE SEX PARTNERS IS AN UPCOMING THREAT FOR RAPID TRANSMISSION OF HIV AMONG PEOPLE WHO INJECT DRUGS (PWID) IN BANGLADESH**

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**Introduction and Aims** The 9th round national sero-surveillance data shows 5.3% HIV prevalence among the PWIDs in Dhaka. Save the Children is committed to prevent HIV in Bangladesh where harm reduction is a major focus. At the beginning the project has conducted a study where one of the main focuses was to investigate the sexual behaviour and practise of the PWIDs.

**Design and Methods** The methodology used for this study was the Rapid Situation and Response Assessment by triangulation of both qualitative and quantitative method by collecting information from primary and secondary source. The data were collected through field observation, 790 one to one in-depth questionnaire, 42 Focus group discussions, 360 Key informant interviews and 14 cases studies.

**Results** Sixty percent (60%) of PWIDs report to have had different sex partners on different occasions and of them 9 persons on average to have sex with. On average 13% of the PWIDs have experience of having sex in the anal route and only 21% of those had used condom. Only 44% PWIDs reported that they had used condom in the last one year and consistent condom use is only 14%.

**Discussions and Conclusions** Emphasizing safe sex behaviour programme with PWIDs is crucial to avert HIV transmission in Bangladesh.

**P3.104 THE SOCIAL ORGANISATION OF SEX WORK IN RURAL EASTERN ZIMBABWE AND ITS IMPLICATIONS FOR HIV INFECTION**

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**Background** Amid Zimbabwe's decline in overall HIV prevalence, the relative importance of key populations to ongoing transmission might be expected to change. We examine variation in the social organisation of sex work and assess the characteristics associated with HIV infection among sex workers (SW) in rural Zimbabwe.

**Methods** We collected and analysed cross-sectional data on 545 women who reported sex for payment - including cash-per-act and