

different groups of SWs. Some STIs are more prevalent among SWs than the general public. However, these results should be interpreted with caution as the identifying SW code is new and inconsistencies in the way SWs are identified were observed.

**P3.175 PREVALENCE OF HIV, SYPHILIS, DRUGS USE AND SEXUAL RISK BEHAVIOURS AMONG PRISONERS IN GUATEMALA, 2012**

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**B E Alvarez Rodríguez**, <sup>2</sup>Z Pinzón, <sup>1</sup>B J Huaman, <sup>3</sup>M Mansur, <sup>3</sup>R Vega, <sup>3</sup>S Ortega, <sup>4</sup>I Osuna-Ramírez, <sup>1</sup>Loya-Montiel, <sup>1</sup>N Arambú, <sup>1</sup>S Morales-Miranda. <sup>1</sup>Universidad del Valle de Guatemala, Guatemala, Guatemala; <sup>2</sup>Programa Nacional de VIH/SIDA, Ministerio de Salud de Guatemala, Guatemala, Guatemala; <sup>3</sup>Instituto Humanista de Cooperación para el Desarrollo (HIVOS), Guatemala, Guatemala; <sup>4</sup>Universidad Autónoma de Sinaloa, Culiacan-Sinaloa, Mexico

**Background** In Guatemala, there is limited information on the situation of HIV in prisoners. Therefore performed the first representative Behavior Surveillance Survey (BSS) and Prevalence of HIV and syphilis conducted among inmate population in country.

**Methods** From September to December 2012, inmates were recruited in 6 prisons located in Guatemala City. A two-stage random cluster sampling and a face-to-face standardised questionnaire were applied. Those who met eligibility criteria and signed informed consent were selected as participants, being all of them tested for HIV and syphilis. The proportions, medians, interquartile range (IQR) and confidence intervals (CI: 95%) were obtained using STATA 11.1.

**Results** 605 inmates wererecruited, 87% male/13% female. The median age was 31 years (IQR 25–38). 50% had 1–5 years of imprisonment; the median was 2 years (IQR 0.8–4). Nearly 30% reported > 2 sexual partners in the last 12 months; only 23% used a condom at last intercourse. Consistent condom use in the past 30 days with regular partner, casual and business was 13%, 43%, 78% respectively. The 51% and 58% reported illicit drug use at some time- in life and in the last 30 days, 5% and 1% used injection drugs in the same periods respectively. The Index of adequate knowledge about HIV was 32%. The prevalence of HIV was 0.76% (CI 0.24–1.76) and syphilis 3.5% (CI: 2.23–5.20).

**Conclusions** A low HIV prevalence and syphilis among inmates in Guatemala were found. However, sexual risk behaviours and low HIV knowledge put them at risk of HIV infection. Drug use was higher than reported in other Central American BSS (< 1%). It is necessary that the state as guarantor of inmates ensures access to

prevention and control of STIs and HIV, emphasising the use of condoms in all sexual relations and the use of sterile injecting equipment for intravenous drug users.

**P3.176 PREVALENCE OF GENITAL INFECTIONS WITH CHLAMYDIA TRACHOMATIS (CT), NEISSERIA GONORRHOEA (NG) AND TRICHOMONAS VAGINALIS (TV) IN HARD-TO-REACH FEMALE SEX WORKERS IN NORTH RHINE-WESTPHALIA, GERMANY: THE STI-OUTREACH STUDY**

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<sup>1,2</sup>K Jansen, <sup>1,2</sup>V Bremer, <sup>1</sup>G Steffen, <sup>1</sup>N Sarma, <sup>3</sup>D Münstermann, <sup>3</sup>A Lucht, <sup>3</sup>C Tiemann. <sup>1</sup>Robert Koch-Institute, Berlin, Germany; <sup>2</sup>German STI Society, Bochum, Germany; <sup>3</sup>Labor Krone, Bad Salzuflen, Germany

**Background** In Germany, few data exist about the prevalence of STI in female sex workers (FSW). Especially hard-to-reach populations without regular contact to health services may be at high risk for STI. We measured the prevalence of CT, NG and TV among FSW at their workplace in order to evaluate whether these tests should be routinely offered in this population.

**Methods** Specialised outreach-workers of local public health authorities (LPHA) screened FSW in North Rhine-Westfalia for the respective STI on basis of self-collected vaginal swabs, using TMA (CT and NG: APTIMA Combo 2®; TV: APTIMA® Trichomonas vaginalis Assay). Sociodemographics, sexual behaviour, and medical care situation were surveyed with help of translators and cultural mediators.

**Results** Up to February 8, 227 FSW were enrolled by 9 LPHA. 10.6% of FSW were born in Germany, 27.8% in Bulgaria, 22.5% in Romania, 39.1% in other countries. 40.9% of non-Germans had no German language skills. German and non-German FSW differed significantly regarding mean age (35 years vs. 30 years,  $p < 0.01$ ), mean duration of sex work (8.7 years vs. 3.6 years,  $p < 0.01$ ), existing health insurance for Germany (91.7% vs. 18.6%,  $p < 0.01$ ), and ever attending a LPHA (62.5% vs. 32.5%,  $p = 0.016$ ).

Overall prevalences were 7.9% for CT, 12.8% for NG, and 16.3% for TV (table 1).

**Conclusion** For the first time, hard-to-reach FSW were screened for CT, NG, and TV in a low threshold multicenter approach in Germany. Lacking German language skills, no health insurance, rare contact to LPHA, and mostly foreign origin characterised a large proportion of the study population, but nearly all these factors were independent from being tested positively for STI. We found high prevalences of CT, NG, and TV demonstrating a high

**Abstract P3.176 Table 1** Sociodemographic and behavioural characteristics of female sex workers tested for Neisseria gonorrhoea, Chlamydia trachomatis and Trichomonas vaginalis within the STI-Outreach study (for comparisons: chi-square test or Fisher's exact test, where appropriate)

		Neisseria gonorrhoea			Chlamydia trachomatis			Trichomonas vaginalis		
		Positive (n = 18)	negative (n = 209)	p-value	Positive (n = 29)	negative (n = 198)	p-value	Positive (n = 37)	negative (n = 190)	p-value
Age (years)	< 20	0	1.9	0.273	0	2.0	0.188	2.7	1.6	0.428
	20–29	77.8	54.1		72.4	53.5		64.9	54.2	
	30–39	11.1	29.2		24.1	28.3		24.3	28.4	
	> 40	11.1	14.8		3.5	16.2		8.1	15.8	
Country of birth	Germany	0	11.5	0.229	6.9	11.1	0.747	2.7	12.1	0.140
	Abroad	100	88.5		93.1	88.9		97.3	87.9	
German language skills (only foreigners)	Fluent/Basic	16.7	63.2	0.000	59.3	59.1	0.987	47.2	61.7	0.110
	None	83.3	36.8		40.7	40.9		52.8	38.3	
Ever attended LPHA?	Yes	16.7	37.3	0.122	24.1	37.4	0.165	37.8	35.3	0.765
	No/not sure	83.3	62.7		75.9	62.6		62.2	64.7	
Health insurance valid for Germany?	Yes	5.6	27.8	0.048	13.8	27.8	0.119	16.2	27.9	0.138
	No/not sure	94.4	72.2		86.2	72.8		83.8	72.1	

**Abstract P3.177 Table 1** Table to show sexual behaviour & new diagnoses of STI/blood borne viruses (BBV)

No. sexual contacts < 3months	No. patients (%)	Reported sexual behaviour	No. patients (%)	STI/BBV	No. of new diagnoses (%)
0	2(3.4%)	MSM UPAI < 1wk	14(31.8%)	CT	5/59(8.5%)
1	14(23.7%)	MSM UPAI < 1m	20(45.4%)	GC	3/59(5.1%)
2-5	21(35.6%)	MSM UPAI < 3m	30(68.1%)	HPV	1/59(1.7%)
6-10	8(13.6%)	Group sex/sex parties/anon. sex	15(25.4%)	Scabies	1/59(1.7%)
11-20	5(8.4%)	IVDU	15(25.4%)	PID	1/59(1.7%)
21-50	2(3.4%)	CSW	7(11.9%)	HIV	1/31*(3.2%)
> 50	3(5.1%)	Fisting	1(1.7%)	Hep B	1/28*(3.6%)
Unknown/"too many to count"	4(6.8%)			*denominator is number accepting the test	
Median = 3					

need to implement the respective tests routinely, preferably at their workplace. Final data is expected to confirm the present results.

### P3.177 SEXUAL HEALTH SCREENING IN A CLUB DRUG CLINIC

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**K Stegmann**, K Cook, D Payne, L Watson, J Hardie, O Bowden-Jones, A Sullivan, S Day. *Chelsea and Westminster Hospital, London, UK*

**Background** The Club Drug Clinic (CDC) is a service established in 2010 for the increasing numbers of adults who have developed problems with club drugs. Use of these drugs is associated with high risk sexual behaviour and an increased risk of acquiring HIV and sexually transmitted infections (STIs). We provide an opportunistic sexual health screening service to clients in the CDC. This study aims to identify the STI rates amongst our attendees.

**Methods** Notes review of clients seen in our CDC sexual health service from June 2011 to January 2013.

**Results** 59 clients were seen in the sexual health clinic, receiving an average of 1.2 screens per client. Eight clients were female (13%) and 51 male (87%) (44 (75%) MSM). Median age was 32 (21-55) yrs.

Thirteen STIs were identified from seventy STI screens. STI prevalence was 19% (11/59). Clients reported their last STI screen to be: < 3 months 17(29%); < 6 months 29 (49%); < 1 year 38 (64%), never 1, unsure 11 (18.6%).

21 (36%) clients were HIV positive (1 new diagnosis). Of these, 11 (52%) were on ARVs, with 10/11 having a HIV viral load (VL) < 40 copies/ml. Median HIV VL for those not on ARV was 107,170 copies/ml (range 1164 to 23million).

**Discussion** Despite many clients reporting recent STI screens this study demonstrates high risk sexual behaviour and a significant prevalence of STI's and HIV amongst CDC attendees. These findings support the on-going and regular provision of sexual health screening to CDC clients. Given this was a self-referring group representing 59/360 (16%) total CDC attendees more work is need to encourage other CDC clients to attend for STI screens and to recall existing sexual health clinic attendees for repeat HIV/STI testing.

### P3.178 SYPHILIS PREVALENCE IN THE MIDDLE EAST AND NORTH AFRICA: A SYSTEMATIC REVIEW

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**S K Riome**, <sup>1,2,3</sup>L J Abu-Raddad. <sup>1</sup>Weill Cornell Medical College - Qatar, Doha, Qatar; <sup>2</sup>Weill Cornell Medical College, Cornell University, New York, NY, United States; <sup>3</sup>Fred Hutchinson Cancer Research Center, Seattle, WA, United States

**Background** There is limited knowledge regarding the extent of the disease burden of syphilis in the Middle East and North Africa

(MENA) region. The objective of this study was to provide, for the first time, a review of the prevalence of syphilis in the MENA region.

**Methods** A systematic review of all available data on syphilis prevalence in 23 countries in MENA was conducted following the PRISMA guidelines. Sources of data included PubMed and Embase databases which were searched with no restrictions on time or language. Identified records were screened for relevance and eligibility. All studies with a prevalence measure of syphilis were eligible for inclusion irrespective of study design.

**Results** The search yielded 383 records out of which 98 articles were found eligible for inclusion. Results were classified and analysed according to three defined population risk groups: High-risk, intermediate-risk, and general population (low risk). High-risk populations had the following prevalence levels: female sex workers (1% - 87%), men who have sex with men (4%-60%), male sex workers (4%-63%) and injecting drug users (1%-18%). Select intermediate risk groups had the following prevalence levels: STD clinic attendees (1%-33%), prisoners (0%-23%), and truck drivers (4%-7%). Select general population groups had the following prevalence levels: blood donors (0%-3%) and ANC attendees (0%-19%).

**Conclusions** The quality of studies and their designs varied and diagnostic methods were not always clear. High prevalence levels were identified among high-risk populations, and relatively high levels were also found among intermediate risk groups. Low prevalence levels however were documented among general population groups. Though the overall prevalence of syphilis in MENA may not be large, there is still significant burden of disease that needs to be addressed. Given the limitations in available data, further studies are needed to better characterise the infection trends.

### P3.179 PREVALENCE OF HIV AND SYPHILIS AND SOCIAL BEHAVIOUR CHARACTERISTICS OF NATIVE POPULATIONS IN THREE GEOGRAPHICAL AREAS OF PARAGUAY - 2011

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<sup>1</sup>N Aguayo, <sup>1</sup>G Aguilar, <sup>1</sup>L Gimenez, <sup>1</sup>A Barboza, <sup>2</sup>P Martinez, <sup>3</sup>G Estigarribia, <sup>1</sup>A Kawabata. <sup>1</sup>National Program of Control of HIV/AIDS/STI, Asuncion, Paraguay; <sup>2</sup>National University of Caaguazu, Caaguazu, Paraguay; <sup>3</sup>National University of Caaguazu, Asuncion, Paraguay

**Background** The indigenous population presents cultural, socio-economic characteristics that increases its vulnerability to sexually transmitted infections, like syphilis and HIV.

**Methods** Cross-sectional descriptive study, with confidential linked serological tests for HIV and Syphilis, carried out in three geographical areas of Paraguay (Chaco, Center-eastern and metropolitan Area) during 2011. A probabilistic, stratified, two-stage cluster sampling was carried out. Syphilis was tested with Rapid Test and VDRL. HIV included ELISA and Western Blot for confirmation.