#### Abstract

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Abstract category D39:

Substance Use - Social, Behavioural and Cultural Issues (Drug and alcohol use, social and psycho-social issues and related risk practices)

#### Title:

HIV and Hepatitis C and associated risks among injecting drug users in Germany – preliminary results from two pilot studies 2011 using respondent driven sampling

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# **Background**

Injecting drug users (IDU) are a population at high risk for HIV and Hepatitis C (HCV). To generate seroprevalence and related KABP-data and to enhance prevention against these infections among IDU in Germany, a multicentre sero-and behavioural survey among IDU using respondent driven sampling (RDS) was piloted in two German cities in 2011.

### **Methods**

Eligible participants (IDU having injected within last 12 months aged 16years+ and living in the study city) were recruited by RDS, using low-threshold-drop-in facilities in Berlin and Essen as study-sites, and starting from 12 seeds in each city. Capillary blood samples collected as dried blood spots were anonymously tested for anti-HIV, anti-HCV and HCV-RNA. Participants responded to a detailed face-to-face-interview about their HIV- and HCV-related knowledge, former testing, and sexual and injecting risk behaviour.

### **Results**

Among 534 IDU (Berlin:337; Essen:197), 20% women, median age: 35years (Berlin) and 38years (Essen), 99.4% had ever taken heroin, 81.3% had taken it within the last 30days, and 75.7% had injected it. 26%(Berlin) and 13%(Essen) of participants were born in Central or Eastern Europe. Incarceration was reported from 76.5% (Berlin) and 85.8% (Essen), and among those 39.8%(Berlin) and 32.5%(Essen) had injected in prison. RDS-weighted seroprevalences for HIV were 3.9% (95%CI[1.3%;7.2%]; Berlin) and 3.0% (95%CI[1.0%;6.2%]; Essen), for anti-HCV 52.5% (95%CI[44.5%;60.6%]; Berlin) and 79.7% (95%CI[69.3%;86.9%]; Essen) and for HCV-RNA 37.1% (95%CI[36,9%;44,7%]; Berlin) and 58.0% (95%CI[43.7%;70.1%]; Essen). HIV-HCV-coinfection occurred in 24/25 cases. Overall, following HCV-associated factors were identified: increasing age, increasing number of years since first injection, lower education level, increasing number of years incarcerated, having injected in prison and non-professional tattooing (s.table1). Results of multivariate analysis are pending.

	Number of cases (n)	Number of HCV positive cases* (n)	% HCV	Unweighted X <sup>2</sup>	unweighted odds ratio	95% CI (	
Gender	(/	eases (ii)	positive		ouds rucio	10	
Male	432	267	61.8%	p = 0.159			
Female	101	70	69.3%	p o.e.o			
Age in years							
Under 25	39	12	30.8%	p < 0.001	1		
25 - 34	194	110	56.7%	•	2.94	1.41	6.1
Over 34	299	214	71.6%		5.65	2.75	11.6
School Education							
secondary school diploma	189	106	56.1%	p = 0.012	1		
lower or no graduation	340	340	67.1%	•	1.59	1.11	2.2
Region of origin						,	
Germany / Western Europe	409	257	62.8%	p = 0.570			
Eastern /Central Europe	111	73	65.8%	·			
Ever homeless							
Never	188	112	59.6%	p = 0.216			
Yes	340	221	65.0%				
Number of years since first injected						,	
<= 4	79	26	32.9%	p < 0.001	1		
5-9	93	52	55.9%	•	2.58	1.39	4.8
10-14	96	55	57.3%		2.73	1.47	5.0
15 +	262	202	77.1%		6.85	3.95	11.9
Ever injected heroin							
No	77	40	51.9%	p = 0.015	1		
Yes	419	278	66.3%		4.44	2.67	7.4
Imprisonment							
Never	107	56	52.3%	p < 0.001	1		
Under 2 years	177	98	55.4%		1.13	0.69	1,8
More than 2 years	248	182	73.4%		2.51	1.56	4.0
Injected in prison							
No	267	152	56.9%	p < 0.001	1		
Yes	157	126	80.3%		3.08	1.94	4.8
Non-professional tattooing							
No	341	202	59.2%	p = 0.014	1		
Yes	184	129	70.1%		1.61	1.10	2.3

# **Conclusions**

While HIV rates were moderate, high rates of HCV infection demonstrate the necessity of intensified prevention strategies. Feasibility of methods was proven, so that six further cities will be investigated until 2015.