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# Study on seroprevalence of HIV, Hepatitis C and risk behaviours in persons who inject drugs in Zagreb, Split and Rijeka

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## Background

- ❖ limited data on HIV and hepatitis C virus (HCV) epidemiology among people who inject drugs (PWID)
- ❖ Aim: provision of data on HIV and HCV prevalence and sexual and injecting risk behaviours among PWID in Zagreb, Split, and Rijeka
- ❖ Methods: Respondent-driven sampling (RDS); biological specimens for HIV and HCV testing; behavioural questionnaire
- ❖ Timeframe: November 2014 - February 2015



## Methodology

- ❖ Eligibility: 18 years of age or older; injected drugs for non-medical reasons in a month prior to enrolment into the study, living in one of the cities for more than 12 months prior to study start; capable of understanding and accepting the informed consent
- ❖ Sample size: 400 for Split and Zagreb and 350 for Rijeka
- ❖ Collection sites: In Split and Rijeka - NGOs that provide NSEP through “drop-in” centers to PWID; in Zagreb - HIV Voluntary Counseling and Testing (VCT) Centre at the University Hospital for Infectious Diseases (UHID)
- ❖ Recruitment: Rijeka - 6 initial respondents (seeds); Split - 9; Zagreb - 10
- ❖ participants received pre-test counseling and provided biological specimens for HIV and HCV testing and completed a behavioral questionnaire
- ❖ Survey data collection and procedures: interviewer - administered questionnaire, based on the EMCDDA protocol
- ❖ Laboratory tests: Zagreb and Rijeka: sample of oral fluid and test using rapid tests for HIV (OraQuick ADVANCE1 Rapid HIV-1/2 Antibody Test) and HCV antibodies (OraQuick1 HCV Rapid Antibody Test); In Split - blood sample which was tested for HIV (Vidas1 HIV duo quick) and HCV antibodies (Enzygnost anti-HCV 4,01)



## Results

Age groups – first injecting	RIJEKA			SPLIT			ZAGREB		
	Sample		Estimate in population	Sample		Estimate in population	Sample		Estimate in population
	n/N	%	%	n/N	%	%	n/N	%	%
< 18	91/255	35,7	28,8	161/399	40,4	38,2	56/176	31,8	25,3
18 – 24	119/255	46,7	49,0	198/399	49,6	52,3	93/176	52,8	59,0
≥ 25	45/255	17,6	22,7	40/399	10,0	9,5	27/176	15,3	15,7
<b>Drugs injected</b>									
Heroin	206/247	83,4	81,1	332/397	83,6	82,0	122/171	71,3	68,7
Methadone	4/247	1,6	1,7	2/397	0,5	0,5	14/171	8,2	9,1
Buprenorphine	13/247	5,3	7,4	2/397	0,5	0,6	7/171	4,1	3,4
Cocaine	8/247	3,2	2,1	11/397	2,8	4,6	13/171	7,6	7,4



## Results

	RIJEKA			SPLIT			ZAGREB		
	Sample		Estimate in population	Sample		Estimate in population	Sample		Estimate in population
	n/N	%	%	n/N	%	%	n/N	%	%
<b>Ever tested for HIV</b>	181/252	71,8	73,3	261/398	65,6	58,2	100/173	57,8	50,0
<b>Tested in last 12 months</b>	45/214	21,0	20,4	24/395	6,1	6,8	33/170	19,4	13,1
<b>Current HIV status</b>									
HIV-positive	1/172	0,6	0,1	0/260	0,0	-	1/93	1,1	0,5
HIV-negative	171/172	99,4	99,9	260/260	100	-	92/93	98,9	99,5



## Results

	RIJEKA			SPLIT			ZAGREB		
	Sample		Estimate in population	Sample		Estimate in population	Sample		Estimate in population
	n/N	%	%	n/N	%	%	n/N	%	%
<b>Ever tested for HCV</b>	196/250	78,4	78,0	274/398	68,8	61,5	116/175	66,3	56,6
<b>Tested for HCV in the last 12 months</b>	52/212	24,5	21,8	24/390	6,2	7,0	38/168	22,6	13,9
<b>Current HCV status</b>									
Had Hepatitis C/cured	3/185	1,6	1,8	9/270	3,3	5,4	2/104	1,9	1,1
Have Hepatitis C/in treatment	9/185	4,9	4,3	4/270	1,5	0,9	5/104	4,8	4,0
Have Hepatitis C/not in treatment	35/185	18,9	18,7	140/270	51,9	48,5	31/104	29,8	33,0
Hepatitis C negative	138/185	74,6	75,1	117/270	43,3	45,2	66/104	63,5	61,9



## Results

	RIJEKA			SPLIT			ZAGREB		
	Sample		Estimate in population	Sample		Estimate in population	Sample		Estimate in population
	n/N	%	%	n/N	%	%	n/N	%	%
<b>HIV</b>	2/254	0,8	0,2	1/390	0,3	0,3	1/176	0,6	0,2
<b>HCV</b>	85/254	33,5	31,5	173/387	44,7	38,3	55 <sup>3</sup> /176	31,2	29,1



## Conclusions

- ❖ HCV epidemic well-established among PWID in Croatia - expected due to the higher infectivity of HCV and the practice of sharing non-sterile needles and syringes and other injecting equipment
- ❖ Despite most probably low-level HIV epidemic among PWID in three largest cities in Croatia, the existent HCV epidemic indicates the need for better coverage with harm reduction programs that would reduce high-risk injecting and sexual behaviors among PWID.
- ❖ PWID in Croatia start injecting drugs around 20 years of age - somewhat younger than their counterparts in other EU countries
- ❖ frequently reported injection of methadone and buprenorphine - concern regarding the increased use of opioids other than heroin
- ❖ possibility of underestimation of the extent of misuse of OST in Croatia
- ❖ need to strengthen the outreach of NSEP in Rijeka and Zagreb and to re-establish OST in Split
- ❖ majority of PWID who ever injected while in prison reported sharing of needles and syringes while incarcerated - risk to a wider spread of infections in prisons and in communities during the post-release period



## Limitations

- ❖ target sample sizes not reached in Zagreb and Rijeka (176 participants in Zagreb, 255 in Rijeka)
- ❖ possibility of oversampling unemployed PWID in Rijeka and Split
- ❖ possibility of reporting bias influencing participants' reporting of network sizes used for calculation of sampling weights
- ❖ social desirability and recall bias influenced reporting of sexual and drug using behaviours.



## Reccomendations

- ❖ increase testing for HIV and HCV
- ❖ increase availability of harm reduction services in prison settings
- ❖ evaluation of OST needed
- ❖ increase availability of Naloxone
- ❖ provision of Hepatitis B and HPV vaccination and STD testing



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# Thank you for your attention!

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