

HIV and hepatitis C prevalence, and related risk behaviours among people who inject drugs in three cities in Croatia: Findings from respondent-driven sampling surveys

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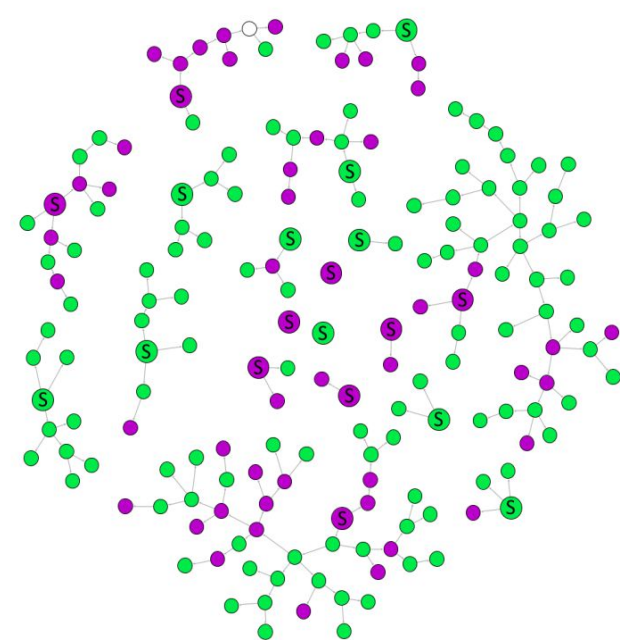


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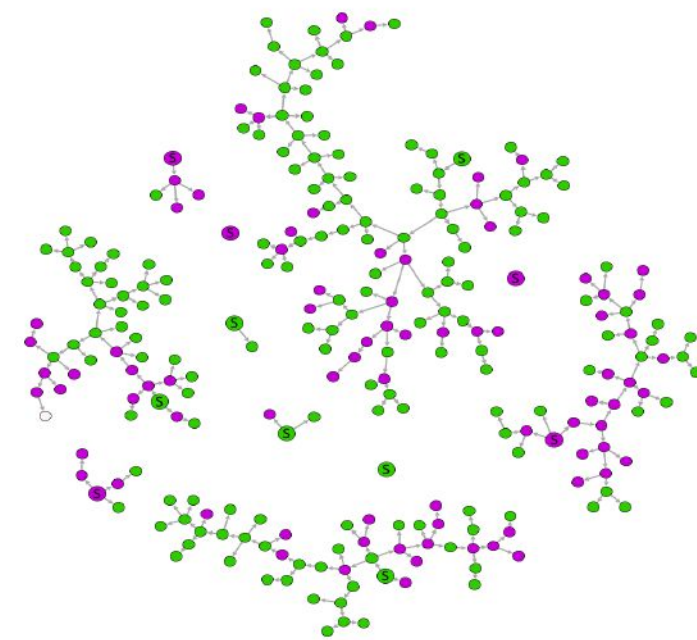
Background: There are limited data on HIV and hepatitis C virus (HCV) epidemiology among people who inject drugs (PWID) in Croatia. This study aims were to provide data on HIV and HCV prevalence and sexual and injecting risk behaviours among PWID in Zagreb, Split and Rijeka.

Methods: Using respondent-driven sampling (RDS) from November 2014 to February 2015 we recruited a total of 176 PWID in Zagreb, 255 in Rijeka and 399 in Split (Figure 1). Participants provided biological specimens for HIV and HCV testing and completed a behavioural questionnaire. We used RDS Analyst statistical package¹ to calculate weighted population estimates and 95% confidence intervals (CI) and Gephi² software to visualize recruitment chains (Figure 1).

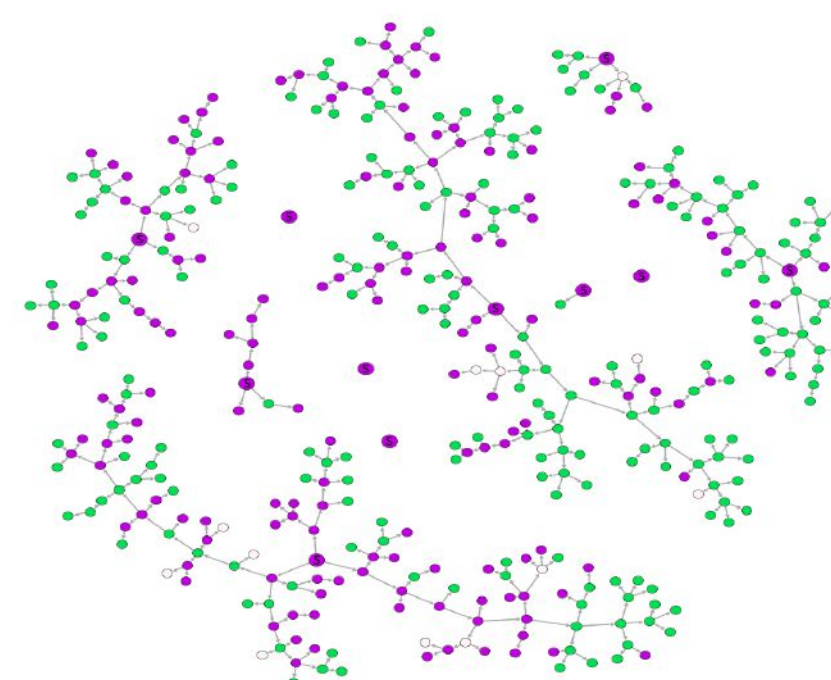
Figure 1. Recruitment chains in respondent-driven sampling (RDS) surveys in three largest Croatian cities, 2015; Green = HCV negative, Purple = HCV positive, White = unknown test result, S = initial respondent (seed)



Zagreb; N=176

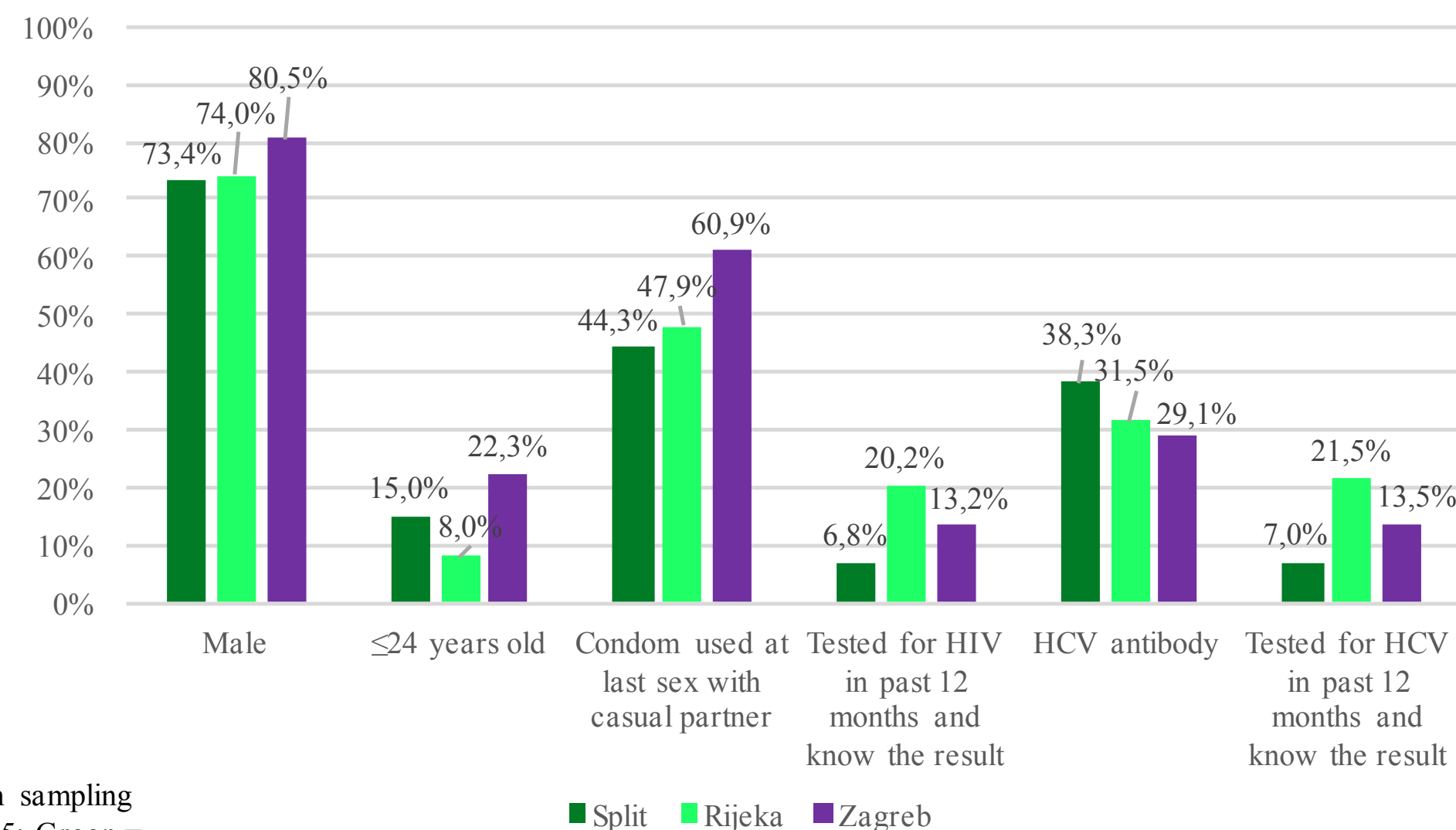


Rijeka; N=255



Split; N=399

Figure 2: Weighted population estimates of age, gender, condom use, prevalence of HIV and HCV antibody and testing rates for HIV and HCV among people who inject drugs (PWID) in three largest Croatian cities, 2015.



Results: The estimated median age of PWID was 33 years in Zagreb, 34 years in Rijeka and 37 years in Split. In the month before the survey, 2.5% of PWID in Split, 5.6% in Rijeka and 8.0% in Zagreb reported sharing non-sterile needles and syringes. Many PWID injected opioid substitution therapy (OST) in the month before the survey (57.0% in Zagreb and 57.5% in Split and Rijeka, respectively). Among PWID who had a casual sexual partner in the past 12 months (ranging from 39.2% in Split to 44.4% in Rijeka) condom use was low. Although HIV prevalence was low (0.2% in Rijeka and Zagreb, 0.3% in Split), HCV antibody prevalence was considerable (29.1% in Zagreb, 31.5% in Rijeka, 38.3% in Split). HIV and HCV testing coverage in the past 12 months was insufficient (Figure 2).

Conclusions: We found a low-level HIV epidemic and a sizable HCV epidemic among PWID across all three cities. There is a need to develop a comprehensive approach to harm reduction and scale up the coverage with needles and syringes exchange programmes, OST and HIV and HCV testing services, as well as to strengthen sexual health interventions due to the presence of high-risk sexual behaviours.

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