

Early age drug injection initiation as risk factor for HIV/HCV coinfection among drug users in rural communities of Puerto Rico

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This study aimed to estimate the prevalence of HIV/HCV coinfection and its association with drug injection initiation at an early age among drug users residing in the rural communities of Puerto Rico. With the utilization of a response driven sampling method, 315 intravenous drug users were recruited. Information on sociodemographics, drug use patterns, age of drug injection initiation, and risk behaviors were obtained through structured interviews. HIV and HCV status were determined by the results of the INSTI Rapid HIV and OraQuick Rapid HCV tests. Frequency distributions, bivariate analyses and multinomial logistic regression were used to assess covariates of HIV/HCV. The study received IRB approval through the University of Nebraska-Lincoln and the University of Puerto Rico. Approximately 91% of study participants were males. Participants' mean age was 41.7 years and the majority had not completed high school (47.6%). More than three quarters (78.4%) tested positive for HCV during the rapid test, while 6.0% tested positive for HIV. The prevalence of HIV/HCV coinfection was 6.0%. The mean age of drug

injection initiation was 21.9 years. HIV/HCV coinfection was strongly associated with drug injection initiation at an early age. The odds of IDUs who initiated drug injection before 18 years was 3 times the odds of IDUs who commenced drug injection after 18 years age (OR=3.8 95%; CI=1.3, 11.3). Strengthening policies and effective harm reduction interventions that prevent early drug injection initiation may reduce HIV/HCV coinfection among drug users in rural communities in Puerto Rico. Understanding the short- and long-term transmission dynamics of blood-borne illnesses in network contexts represents an important public health priority for people who inject drugs and the general population that surrounds them. The purpose of this article is to compare the risk networks of urban and rural people who inject drugs in Puerto Rico. In the current study, network characteristics are drawn from the sampling "trees" used to recruit participants to the study. We found that injection frequency is the only factor significantly related to clustering behavior among both urban and rural people who inject drugs.