

INJECTION PARTNER MIXING: HIGHER RISK OF HCV AMONG YOUNG ADULTS WHO INJECT DRUGS WITH YOUNGER INJECTING PARTNERS.

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Background:

HCV incidence is increasing in the U.S., notably among younger people who inject drugs (PWID). In a cohort of young adult (age<30 years) PWID in San Francisco (UFO Study), incidence has been constant for the past 12 years: ~25/100 person-years observation (pyo). We assessed incidence rates in association with 'injecting partner mixing' groups by age, to identify potential drivers and intervention opportunities.

Methods:

HCV incidence was estimated among susceptible participants in the UFO Study based on age of the "three injecting partners with whom they had injected the most with in the past month": (i) all <30; (ii) mixed-age (<&>30); and (iii) ≥30 years. We also assessed how knowledge of injecting partners' HCV status impacted these rates.

Results:

Between 2006 and 2017, 99 incident HCV infections were detected for an overall incidence (/100 pyo) of 27.8 (95% CI: 22.9, 33.9). Of those with incident HCV, 66% were male, median age was 24 (IQR: 22-27); 69% injected heroin most often in past month. Incidence was highest in those whose injecting partners were all <30: 34.5 (95%CI: 26.0, 45.8), followed by those with mixed-age injecting partnerships (27.1; 95% CI: 19.9, 37.0), and lowest among those whose partners were ≥30 (15.9; 95% CI: 8.8, 28.7). In a multivariable Cox regression model adjusting for injection frequency, we found evidence for an interaction by HCV status: lowest incidence was seen in those whose partners were all ≥30 and with at least one known HCV+ partner (p=0.06).

Conclusion:

These results suggest that in addition to being at highest risk of acquiring HCV, young adult PWID are the highest risk 'transmitters'. Further research within this cohort will seek to understand factors are associated with increased risk in these age-mixing groups. Results suggest that prevention efforts are needed to reduce both acquisition and transmission among younger PWID.

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