

# **A Systematic Review of Prevalence and Correlates of Providing and Receiving Assistance with the Transition to Injection Drug Use**

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## **Abstract**

### **Background**

Preventing the transition to injection drug use (IDU) is an important public health goal as people who inject drugs (PWID) are at high risk for overdose and infectious disease. Initiation into IDU is primarily a social process, often involving PWID assistance. A better understanding of the epidemiology of this phenomenon would inform interventions to prevent PWID assistance and enhance safety when assistance is provided.

### **Methods**

We conducted a systematic review of the literature to a) characterize the prevalence of receiving (among injection-naïve persons) and of providing (among PWID) help or guidance with the first injection and to b) identify correlates and contextual factors associated with these behaviors. Prevalence was summarized using random-effects meta-analysis. Meta-analysis of correlates and contextual factors was not possible given between-study heterogeneity. Instead, correlates were organized as drug use behaviors, health characteristics (e.g., HIV/AIDS), or factors arising from individual's social, economic, policy, or physical environments defined by Rhodes' Risk Environments framework. Study quality was rated as "Good," "Fair," or "Poor" using standardized tools.

### **Results**

After screening 1,164 abstracts, 57 studies were included (n=9 good, 41 fair, 7 poor quality). We coded 7 outcomes reflecting provision or receipt of assistance. The pooled prevalence of receiving help or guidance with the first injection was 88.7% (n=13 estimates, 95% Confidence Interval [CI]: 83.6-93.0%, 95% Prediction Interval [PI]: 64.2-100.0%,  $I^2=95\%$ ). Further, 30.8% of PWID reported ever providing help or guidance with another person's first injection (n=13 estimates, 95% CI: 22.5-39.6%, 95% PI: 4.0-68.2%,  $I^2=97\%$ ). Correlates positively associated with receiving assistance included being female (vs. male, n=4 studies) and contextual factors such as sharing syringes or injection equipment (n=5 studies), which both arise from the social risk environment defined in Rhodes' framework. Similarly, many correlates reflecting social norms around injecting from Rhodes' social risk environment were positively associated with providing assistance (e.g., speaking positively about injection, witnessing another PWID provide assistance).

### Conclusions

While nearly all individuals reported receiving assistance from a PWID during their first injection, only one-third of PWID reported having assisted someone with their first injection. Estimates of providing injection initiation assistance may be downwardly biased due to social desirability. That many correlates of providing assistance reflected social norms of injecting supports the premise of current psychosocial interventions, which seek to engage PWID in preventing injection initiation and promoting harm reduction among injection-naïve individuals. However, further research is needed to identify effective and scalable interventions.