**SYRINGE RE-USE AMONG PEOPLE WHO INJECT DRUGS IN RURAL APPALACHIA**

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**Background:**
Injection-related bacterial and fungal infections can lead to serious conditions including infective endocarditis, osteomyelitis, epidural abscesses, and sepsis. Syringe reuse by people who inject drugs (PWID) could increase risk for these infections. Yet, few studies have explored syringe reuse, particularly in rural settings where access to a clean syringe for each injection may be reduced by limited harm reduction infrastructure. This study describes syringe reuse among PWID in rural Appalachian Kentucky, an area that has been an epicenter of drug-related harms.

**Methods:**
PWID (n=238) completed interviewer-administered questionnaires that elicited data on syringe reuse (average number of times they use each of their syringes), behavioral and demographic characteristics, and syringe service program (SSP) access. Negative log binomial regression was used to examine factors associated with syringe reuse.

**Results:**
On average, people used each syringe nine times (median: 3; IQR: 2-10). Syringe re-use was higher among men [aOR=1.39; 95% CI: 1.04-1.85] and those who injected more frequently, injected buprenorphine [aOR=1.46; 95% CI: 1.10-1.95] and methamphetamine [aOR=2.12; 95% CI: 1.45-3.12], engaged in receptive syringe sharing [aOR=1.76; 95% CI: 1.30-2.38], and reported a higher syringe street price [aOR=2.36; 95% CI: 1.51-3.59]. Syringe re-use was also higher among those who lived greater than 30 minutes from an SSP [aOR=2.35; 95% CI: 1.43-3.87].

**Conclusion:**
Rural PWID are re-using syringes nine times on average conferring extensive risk for contamination between injections and thereby heightening risk of injection-related infections. Further, syringe re-use was higher among those engaging in receptive syringe sharing, indicating that syringes might be reused more times than reported and could carry risk for hepatitis C as well. Ensuring that SSPs are easily accessible to rural PWID who may lack transportation might reduce syringe reuse. Harm reduction interventions that encourage syringe cleaning may be warranted as a stop-gap measure while SSP reach is expanded.

**Disclosure of Interest Statement:**
*The authors have no conflicts of interest.*