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Needle acquisition patterns, network risk and social capital among rural PWID in Puerto Rico

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Abstract

Background: People who inject drugs (PWID) take on significant risks of contracting blood-borne infection, including injecting with a large number of partners and acquiring needles from unsafe sources. When combined, risk of infection can be magnified.

Methods: Using a sample of PWID in rural Puerto Rico, we model the relationship between a subject's number of injection partners and the likelihood of having used an unsafe source of injection syringes. Data collection with 315 current injectors identified six sources of needles.

Results: Of the six possible sources, only acquisition from a seller (paid or free), or using syringes found on the street, was significantly related to number of partners.

Conclusions: These results suggest that sources of syringes do serve to multiply risk of infection caused by multi-partner injection concurrency. They also suggest that prior research on distinct forms of social capital among PWID may need to be rethought.

Background

It is often taken for granted that people who inject drugs take on significant risks of infection. In addition to the potentially harmful effects that injecting drugs can have in and of itself, there is also the additional concern of spreading disease through the sharing of needles or other equipment—such as syringes, cookers, or cotton used to filter the solution before it is drawn into the syringe. Despite these risks, people who inject drugs (PWID) often share injection equipment, both as a cost-cutting measure [1] and as a way to establish and maintain relationships [2]. This risk behavior has received considerable attention in the past—resulting in early and consistent efforts by syringe exchange and syringe service programs since the 1980s [3]. The success of such harm reduction programs is clear [4], but recent work has shown a dearth of services in rural areas [5]. The aim of this paper is to examine how, for rural PWID, the number of risk partners in an individual's injection

network influences or is influenced by where they obtained their injection syringes.

Understanding the unique risks associated with rural injection is significant; the last 10 years have shown a dramatic rise in rural injection drug use [6, 7]. Rural syringe access programs face large challenges, most especially the difficulty they face in reaching a highly dispersed population [8]. Under these circumstances, attention to the ongoing risk posed by risky syringe access is critical.

There are a number of sources from which both rural and urban PWID acquire syringes, such as syringe exchange programs, pharmacies, or the secondary market (e.g., drug sellers, other injectors, etc.). Each of these sources comes with its own unique constellation of risks based on how likely the syringe received is to be sterile—from certainly sterile syringes obtained via pharmacies and exchanges that carry no risk to highly risky, potentially contaminated syringes found on the street. Not all PWID have equal access to these sources. Social constraints influence syringe access in many rural areas, especially where formal syringe exchange programs remain illegal [9]. Where rural pharmacies have the

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60. Jonas AB, Young AM, Oser CB, Leukefeld CG, Havens JR. OxyContin® as currency: OxyContin® use and increased social capital among rural Appalachian drug users. *Soc Sci Med* (1982). 2012;74(10):1602–9.
61. Lovell AM. Risking risk: the influence of types of capital and social networks on the injection practices of drug users. *Soc Sci Med*. 2002;55(5):803–21.
62. Bourdieu P. Outline of a theory of practice. Cambridge: Cambridge University Press; 1977.
63. Bourdieu P. The forms of capital (1986). *Cult Theory*. 2011:81–93.

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