

Toward Evaluation of Dissemination of HIV Prevention Interventions Among Networks of People who Inject Drugs

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Like many other populations, people who inject drugs are embedded in social networks or communities (e.g., injection drug, non-injection drug, sexual risk) and exert biological and social influence on the members of their social networks. The direct effect is the effect on the index participants (i.e., participants who received the intervention) and the disseminated (or indirect) effect is the effect on the participants who shared a network with the index participant. We analyzed a network of people who inject drugs from the Social Factors and HIV Risk Study (SFHR), 1991 to 1993, Bushwick, New York, where links were defined by shared sexual and injection behaviors. In our setting, the study design is an observed network with a nonrandomized intervention or exposure, where information is available on each participant and their directional HIV risk connections. We assumed that smaller groupings or neighborhoods for each individual can be identified in the data. We used an inverse probability weighted approach to quantify the direct and disseminated effects of health beliefs on health-seeking behavior and evaluated the impact of community structure on likelihood of the outcomes.