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IMPROVING THE EFFECTIVENESS AND DELIVERY OF PRE-EXPOSURE PROPHYLAXIS (PrEP) TO PEOPLE WHO INJECT DRUGS

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Abstract

Given evidence to date, pre-exposure prophylaxis (PrEP) for people who inject drugs should be implemented alongside efforts to improve access to existing evidence-based HIV prevention interventions, including antiretroviral therapy and opioid agonist treatments. The criminalization and marginalization of people who inject drugs has and will continue to limit the effectiveness of HIV prevention strategies, including PrEP.

Keywords

Criminalization; drug policy; drug use; HIV; injection drug use; pre-exposure prophylaxis

In this issue of *Addiction*, Guise and colleagues discuss the ethical, policy and public health implications of pre-exposure prophylaxis (PrEP) for HIV prevention among people who inject drugs (PWID) [1]. Analyzing the findings of a report published by the International Network of People Who Use Drugs, the authors highlight concerns regarding the potential for PrEP to undermine the continued implementation and expansion of evidence-based harm reduction programs.

We concur with the authors' conclusion that there is a 'need to ensure that PrEP for PWID is introduced as part of a comprehensive harm reduction package'. In fact, strong evidence suggests that single interventions do not produce substantial and sustained reductions in HIV transmission among PWID: a combination of high coverage biomedical, harm reduction and structural approaches are required [2]. Given the evidence to date [3], it would be foolhardy to believe that PrEP represents a 'silver bullet' in HIV prevention for PWID.

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Declaration of interests

None.

Moreover, although studies are limited, PrEP for HIV-uninfected PWID appears to be cost-effective only when combined with other interventions. One modeling study representative of the HIV epidemic in Ukraine found PrEP to be cost-effective (at \$1700 per QALY gained), but only when provided alongside opioid agonist therapy and antiretroviral therapy [4]. A recently published US study found that PrEP (when combined with frequent HIV screening and prompt treatment for those who become infected) could reduce HIV burden significantly among PWID, but is not cost-effective unless drug prices were reduced by at least 65% [5]. Thus, prioritizing PrEP at the expense of existing evidence-based HIV treatment and harm reduction interventions would be unethical, non-evidence-based, and economically nonsensical.

We wish to underline the fact that the majority of people who are living with HIV who use drugs have yet to experience the benefits of antiretroviral therapy. While life expectancy of some groups of HIV-positive individuals now meets or exceeds that of their non-HIV-positive peers, studies from large clinical cohorts have reported declines in estimated life expectancy for HIV-positive PWID during the combination antiretroviral era [6,7].

Although implementing PrEP for PWID might not currently be a priority in many settings, we in no way advocate for PrEP research involving PWID to be abandoned. Rather, additional modeling and empirical studies are needed urgently to determine how best to improve the effectiveness of the intervention. Studies conducted in North America have demonstrated moderate willingness to use PrEP (35–47%), and significantly higher interest among younger PWID and individuals reporting more frequent engagement in sexual and injecting-related risks [8–10]. Given that PrEP probably prevents both sexual and parenteral HIV transmission, subpopulations of PWID with dual sexual and injecting risks [e.g. commercial sex workers or men who have sex with men (MSM) who also inject drugs] should be the focus of future demonstration studies.

A second way to increase the (cost)-effectiveness of PrEP is to deliver the intervention to a subset of individuals at high risk of acquiring and transmitting the virus. These may include PWID in dense sexual and/or injecting networks or people with large numbers of injecting partners. Although one recent modeling study found the contribution of acute HIV infection to overall transmission among PWID in a mature epidemic to be low [11], PrEP could also be deployed in situations where acute transmission chains are occurring. For example, the rapid delivery of PrEP may be feasible and effective to control the spread of newly identified outbreaks, such as that observed among a community of PWID in Scott County, Indiana [12]. Another priority group might be PWID in correctional settings. Studies have consistently shown high levels of elevated plasma HIV RNA viral load and risk behaviors associated with post-incarceration period [13,14].

Ultimately, although the above-mentioned avenues for research hold promise, the ongoing criminalization of addiction and marginalization of PWID continue to hamper the implementation and scale-up of all HIV prevention modalities, including PrEP, for people who inject drugs. At the global level, the full benefits of PrEP (as well as other biomedical, treatment and harm-reduction interventions) will not be realized without repeal of punitive drug control policies [15]. While PrEP might be another useful tool to reduce the risk of

HIV infection, its effectiveness will be limited as long as the primary work of local, national and global authorities remains to stigmatize, penalize and criminalize people who inject drugs.

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