



Decline in HIV Prevalence Among People Who Inject Drugs in Iran

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Dear Editor,

From the 1980s to the late 2000s, the primary driver of the HIV epidemic in Iran was transmission through injecting drug use. Over time, however, the dominant mode of transmission has gradually shifted toward unprotected sexual contact, which currently represents the main route of HIV transmission in the country. According to the most recent data, only 7% of current HIV transmissions are attributed to injecting drug use, whereas approximately 64% occur through sexual transmission (1-3).

Since the 1990s, when HIV prevalence among people who inject drugs (PWID) was estimated at approximately 25%-30%, a steady decline has been observed. Specifically, HIV prevalence among PWID decreased to approximately 15% in 2010, 8% in 2011, 4% in 2020, and 1% in 2024 (Figure 1) (2-4). These figures indicate a substantial reduction in HIV prevalence among PWID over recent decades. This decline can largely be attributed to the initiation of harm reduction programs in Iran in 2000 and their continued implementation thereafter. In addition, field studies have documented a shift in substance use patterns from injecting to non-injecting routes of administration (5).

Harm reduction programs in Iran have primarily included needle and syringe programs, methadone maintenance treatment, and condom distribution. The provision of free sterile needles and syringes through drop-in centers (DICs) has been widely implemented and has played a critical role in preventing HIV transmission among PWID (1-3). Currently, individuals who inject drugs can also obtain sterile disposable syringes from pharmacies without stigma or restriction.

Methadone maintenance treatment has had a particularly significant impact on controlling the HIV epidemic among PWID in Iran, especially by preventing HIV transmission in Iranian prisons. Furthermore, condom distribution programs are currently implemented in DICs, positive clubs, defined as community-based support centers for people living with HIV, and selected prisons across the country. These interventions have the potential to substantially reduce sexual transmission of HIV. However, given that sexual transmission is now the predominant route of HIV transmission, further strengthening and expansion of these programs are essential (2, 3). In light of the demonstrated effectiveness of harm reduction programs in controlling HIV among PWID, these interventions should be further reinforced. Sustaining and expanding harm reduction efforts is crucial to preventing any resurgence in HIV incidence and prevalence among PWID and avoiding a return to previous epidemic levels.

Footnotes

AI Use Disclosure: The authors declare that AI-assistant tools for English language editing was used to improve the clarity and presentation of this manuscript.

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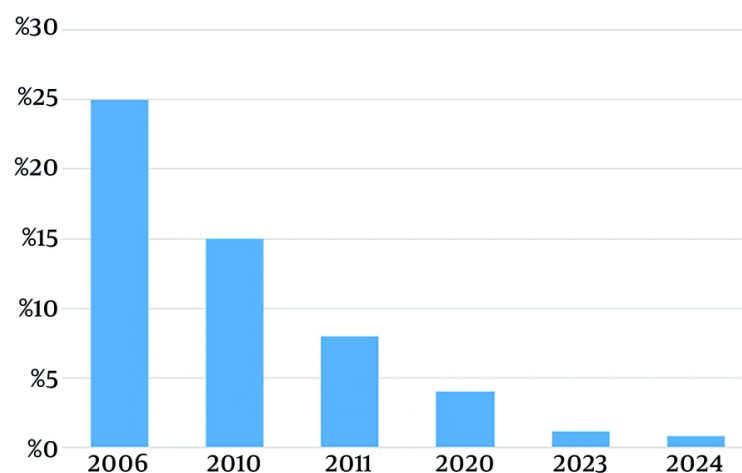


Figure 1. Trend of HIV prevalence among PWID in Iran

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