



# Trend of HIV Prevalence and Incidence in Iranian Prisons: The Need to Strengthen Harm Reduction Programs in Iran

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*Dear Editor,*

Prisons are closed environments, but prisoners are constantly being released and then returned to prison. Prisons have many urban structures such as schools and service areas such as transportation, municipal services, and health care. Although these comprehensive structures exist within prisons and, in some countries, prisons are similar to hotels, prisoners are still at risk of contracting diseases such as HIV. In the past, prison itself has been a risk factor for HIV infection, and HIV-negative individuals have been at risk of HIV after entering prison, as HIV seroconversions were observed among prisoners. However, current studies show that the prevalence of HIV has decreased from about 25% - 30% among people who inject drugs (PWIDs) to about 3%, which can be evidence of a decrease in drug injection use among addicted persons and prisoners (1-6).

Recent observations demonstrated that many high-risk behaviors of prisoners have occurred outside prison, and prison is a potential risk factor for HIV because high-risk behaviors such as drug injection and unprotected sexual behavior may have occurred outside prison, and it is considered as high-risk behaviors inside prison by taking a history, especially in cross-sectional studies (7). For instance, drug injection, which was previously widespread inside prison, is now rarely observed in prison, and even drug injection itself is considered a stigma in some prisons. It even seems that drug injection outside prison has decreased, or at least researchers see it less often, or it occurs in places where researchers have less access to it. In different countries,

the prevalence of HIV among prisoners varies greatly, ranging from less than 1% to about 30% (2).

The prevalence of HIV among prisoners was about 4% in Iran before 2000. Since the initiation of harm reduction programs in 2000, especially the methadone maintenance treatment (MMT) program, there has been a sharp decline, and currently, the overall HIV prevalence in Iranian prisons is about 0.8%, and among families of prisoners, it is 0.4% (5, 8-10). For more details, it can be noted that the prevalence of HIV among male prisoners is about 1% and among female prisoners is about 2% based on recent studies (11, 12).

Given the chronic nature of HIV, a further decline in prevalence cannot be expected, since as the life expectancy of people living with HIV naturally increases, the number of patients also increases cumulatively. Therefore, prevalence is not an appropriate indicator for evaluating the epidemiological situation of prisons, and incidence should be used for a more accurate assessment of the situation. The incidence of HIV among prisoners was estimated to be about 1% in 2009 and about 0.5% per 1000 person-years in 2013, which has decreased significantly compared to the past, when the percentage was about 17% per year (1, 8). This significant reduction is due to the MMT program in Iranian prisons.

Given the meaningful reduction in HIV incidence in Iranian prisons from two to single digits, it is possible to reach a zero percent incidence rate if harm reduction programs, especially MMT, are continued with greater strength and better discipline in prisons so that

prisoners are able to be careful about high-risk behaviors inside and outside prison.

## Footnotes

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