



Commentary

Prison-based harm reduction services are needed to address the dual substance use disorder and infectious disease epidemics in US prisons

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The United States (US) has the highest incarceration rate in the world at 860 per 100,000 adults [1]. Incarcerated people have a high prevalence of chronic medical conditions, including substance use disorder (SUD)—present in 65% of people incarcerated in the US—and chronic viral infections [2]. The prevalence of human immunodeficiency virus (HIV) among incarcerated people in the US is three times higher than the general population and, each year, one in seven people living with HIV will be incarcerated [3]. Additionally, one-third of the 20,00,000+ incarcerated Americans have hepatitis C virus (HCV) infection—and many are unaware of their diagnosis [4]. Despite high rates of addiction-associated and injection drug use (IDU)-associated infectious diseases, only 11% of incarcerated people receive any addiction treatment while in prison, jail, or other correctional facilities (hereafter all referred to as “prison”) [2]. Many people receiving evidence-based medications for opioid use disorder (MOUD) and HIV antiretroviral therapy (ART) have these discontinued upon entering prison; in turn, unavailable addiction treatment and sterile syringes contribute to riskier drug use, like sharing/reusing syringes [5]. Together, chronic viral infections, untreated SUD, and syringe sharing among incarcerated people coalesce to drive the substance use and infectious disease syndemic; in US prisons, harm reduction is an essential intervention.

Harm reduction aims to reduce the negative consequences of drug use while respecting autonomy and acknowledging the social contributors to drug use. While strong evidence supports the use of harm reduction interventions including syringe exchange programs (SEPs), MOUD, naloxone distribution, and HIV pre-exposure prophylaxis, most remain inaccessible to incarcerated people in the US. Prisons elsewhere, however, have implemented many efficacious programs to reduce the harms of untreated SUD and ongoing IDU among incarcerated people. A WHO report evaluating the effectiveness of HIV

interventions in prisons cites numerous successful examples of prison-based harm reduction dating back to 1992 [6]. The earliest prison-based SEP began in Switzerland and quickly decreased transmission of HIV, hepatitis B, and hepatitis C. Prison-based SEPs have since been initiated in >60 countries with additional successful outcomes: prisons with SEPs in Germany and Spain, for example, reported no cases of HIV/HCV seroconversion among incarcerated people, strongly reduced needle sharing, and demonstrated no increases in drug use. In Australia, Canada, Iran, and throughout Europe, many prisons offering MOUD have noted improved prison safety, decreased rates of recidivism and reincarceration, and reduced injection drug use, needle sharing, and mortality. Lastly, in countries such as Canada, Australia, Brazil, South Africa, Iran, and Indonesia, prisons widely offer condoms, lubricant, and dental dams to reduce the risk of HIV/HCV sexual transmission; none of these prisons have reversed their policy nor have they reported any unfavorable outcomes or security issues [6]. In the US, access to harm reduction, even outside the prison system, is limited. North American Syringe Exchange Network data show seven states have no SEPs and 26 states have ≤5 SEPs, leaving much of the population without access to sterile injection equipment. In US prisons, there are no SEPs and limited access to MOUD and condoms, leaving thousands of incarcerated people at elevated risk of drug use-associated morbidity and mortality.

There is a human rights imperative to implement SEPs and harm reduction services in US prisons; people are dying because HIV and HCV are spreading at an alarming rate in prisons, fueled by current failures. Denying the standard of care for HIV/HCV prevention and treatment violates the international human rights to life (International Covenant on Civil and Political Rights, Art. 6), highest attainable standard of health (International Covenant on Economic, Social and Cultural Rights, Art. 12), and freedom from cruel, inhuman and degrading treatment and punishment (International Covenant on Civil and Political Rights, Art. 7) [7,8]. It is also contrary to the U.N. Basic Principles for the Treatment of Prisoners, WHO Guidelines on HIV/AIDS in Prisons, and International Guidelines on HIV/AIDS and Human Rights [7]. Moreover, at a domestic level, this failure may violate the Constitution's 8th amendment, which forbids the infliction of cruel and unusual punishment. Evidence-based harm reduction interventions are necessary to protect the human rights of incarcerated people.

There are no insurmountable barriers to the implementation of harm reduction services in US prisons. No federal law prohibits the

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provision of sterile injection equipment to incarcerated people. Most of the resistance to SEPs lies in unsubstantiated fears that they encourage drug use and could lead to syringe-associated violence against guards. In reality, there is no evidence to show that SEPs increase drug use; instead, they lead to engagement with the healthcare system and can facilitate entry into SUD treatment [9]. Among all international prison-based SEPs, no cases of syringe-associated violence have been reported; instead, prison staff report feeling more protected from infection after the institution of SEPs [6]. Furthermore, every dollar spent on SEPs returns \$4 in healthcare savings and every dollar spent on MOUD can return \$12 in total savings, accounting for both the cost of drug-related crime and healthcare delivery [10]. While the cultural barriers to prison-based SEPs are formidable, harm reduction interventions are uniformly beneficial and cost-effective.

Incarcerated people are an especially vulnerable population with a high burden of medical problems and little choice or access to care. Implementing SEPs and offering treatment for HIV, HCV, and substance use disorder in prison is important from a public health perspective to reduce infectious diseases and lower SUD-related morbidity and mortality. It is likewise critical from a human rights perspective to protect human dignity and fundamental rights to life and health.

Declaration of Competing Interest

The authors have no conflicts of interest to disclose.

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