



## Sex, Drugs, Prisons, and HIV

Susan Okie, M.D.

One recent morning at a medium-security compound at Rhode Island's state prison, Mr. M, a middle-aged black inmate, described some of the high-risk behavior he has witnessed while serving

time. "I've seen it all," he said, smiling and rolling his eyes. "We have a lot of risky sexual activities. . . . Almost every second or minute, somebody's sneaking and doing something." Some participants are homosexual, he added; others are "curious, bisexual, bored, lonely, and . . . experimenting." As in all U.S. prisons, sex is illegal at the facility; as in nearly all, condoms are prohibited. Some inmates try to take precautions, fashioning makeshift condoms from latex gloves or sandwich bags. Most, however, "are so frustrated that they are not thinking of the consequences except for later," said Mr. M.

Drugs, and sometimes needles

and syringes, find their way inside the walls. "I've seen the lifers that just don't care," Mr. M said. "They share needles and don't take a minute to rinse them." In the 1990s, he said, "needles were coming in by the handful," but prison officials have since stopped that traffic, and inmates who take illicit drugs usually snort or swallow them. Tattooing, although also prohibited, has been popular at times. "A lot of people I've known caught hepatitis from tattooing," Mr. M said. "They use staples, a nail . . . anything with a point."

Mr. M had just undergone a checkup performed by Dr. Josiah D. Rich, a professor of medicine

at Brown University Medical School, who provides him with medical care as part of a long-standing arrangement between Brown and the Adult Correctional Institute in Cranston. Two years ago, Mr. M was hospitalized with pneumonia and meningitis. "I was scared and in denial," he said. Now, thanks to treatment with antiretroviral drugs, "I'm doing great, and I feel good," he reported. "I am HIV-positive and still healthy and still look fabulous."

U.S. public health experts consider the Rhode Island prison's human immunodeficiency virus (HIV) counseling and testing practices, medical care, and prerelease services to be among the best in the country. Yet according to international guidelines for reducing the risk of HIV transmission inside prisons, all U.S. prison systems fall short. Recognizing that sex occurs in prison despite pro-

hibitions, the World Health Organization (WHO) and the Joint United Nations Program on HIV/AIDS (UNAIDS) have recommended for more than a decade that condoms be made available to prisoners. They also recommend that prisoners have access to bleach for cleaning injecting equipment, that drug-dependence treatment and methadone maintenance programs be offered in prisons if they are provided in the community, and that needle-exchange programs be considered.

Prisons in several Western European countries and in Australia, Canada, Kyrgyzstan, Belarus, Moldova, Indonesia, and Iran have adopted some or all of these approaches to “harm reduction,” with largely favorable results. For example, programs providing sterile needles and syringes have been established in some 50 prisons in eight countries; evaluations of such programs in Switzerland, Spain, and Germany found no increase in drug use, a dramatic decrease in needle sharing, no new cases of infection with HIV or hepatitis B or C, and no reported instances of needles being used as weapons.<sup>1</sup> Nevertheless, in the United States, condoms are currently provided on a limited basis in only two state prison systems (Vermont and Mississippi) and five county jail systems (New York, Philadelphia, San Francisco, Los Angeles, and Washington, DC). Methadone maintenance programs are rarer still, and no U.S. prison has piloted a needle-exchange program.

The U.S. prison population has reached record numbers — at the end of 2005, more than 2.2 million American adults were incarcerated, according to the Justice Department. And drug-related

offenses are a major reason for the population growth, accounting for 49% of the increase between 1995 and 2003. Moreover, in 2005, more than half of all inmates had a mental health prob-



lem, and doctors who treat prisoners say that many have used illicit drugs as self-medication for untreated mental disorders.

In the United States in 2004 (see table), 1.8% of prison inmates were HIV-positive, more than four times the estimated rate in the general population; the rate of confirmed AIDS cases is also substantially higher (see graph).<sup>2</sup> Some behaviors that increase the risk of contracting HIV and other bloodborne or sexually transmit-

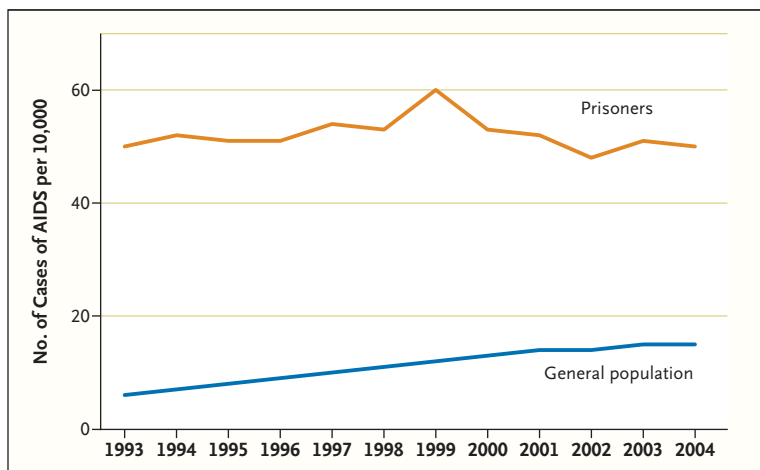
ted infections can also lead to incarceration, and the burden of infectious diseases in prisons is high. It has been estimated that each year, about 25% of all HIV-infected persons in the United States spend time in a correctional facility, as do 33% of persons with hepatitis C virus (HCV) infection and 40% of those with active tuberculosis.<sup>3</sup>

Critics in the public health community have been urging U.S. prison officials to do more to prevent HIV transmission, to improve diagnosis and treatment in prisons, and to expand programs for reducing high-risk behavior after release. The debate over such preventive strategies as providing condoms and needles reflects philosophical differences, as well as uncertainty about the frequency of HIV transmission inside prisons. The UNAIDS and WHO recommendations assume that sexual activity and injection of drugs by inmates cannot be entirely eliminated and aim to protect both prisoners and the public from HIV, HCV, and other diseases.

But many U.S. prison officials contend that providing needles or condoms would send a mixed message. By distributing condoms, “you’re saying sex, whether con-

HIV-AIDS among Prison Inmates at the End of 2004.*		
Jurisdictions with the Most Prisoners Living with HIV-AIDS	No. of Inmates Living with HIV-AIDS	Prevalence of HIV-AIDS %
New York	4500	7.0
Florida	3250	3.9
Texas	2405	1.7
Federal system	1680	1.1
California	1212	0.7
Georgia	1109	2.2

\* Data are from Maruschak.<sup>2</sup>



Rates of Confirmed AIDS Cases in the General Population and among State and Federal Prisoners, 1993–2004.

Data are from Maruschak.<sup>2</sup>

sensual or not, is OK,” said Lieutenant Gerald Ducharme, a guard at the Rhode Island prison. “It’s a detriment to what we’re trying to enforce.” U.S. prison populations have higher rates of mental illness and violence than their European counterparts, which, some researchers argue, might make providing needles more dangerous. And some believe that whereas European prison officials tend to be pragmatic, many U.S. officials adopt a “just deserts” philosophy, viewing infections as the consequences of breaking prison rules.

Studies involving state-prison inmates suggest that the frequency of HIV transmission is low but not negligible. For example, between 1988 — when the Georgia Department of Corrections began mandatory HIV testing of all inmates on entry to prison and voluntary testing thereafter — and 2005, HIV seroconversion occurred in 88 male inmates in Georgia state prisons. HIV transmission in prison was associated with men having sex with other men or receiving a tattoo.<sup>4</sup> In another study

in a southeastern state, Christopher Krebs of RTI International documented that 33 of 5265 male prison inmates (0.63%) contracted HIV while in prison.<sup>5</sup> But Krebs points out that “when you have a large prison population, as our country does . . . you do start thinking about large numbers of people contracting HIV.”

Studies of high-risk behavior in prisons yield widely varying frequency estimates: for example, estimates of the proportion of male inmates who have sex with other men range from 2 to 65%, and estimates of the proportion who are sexually assaulted range from 0 to 40%.<sup>5</sup> Such variations may reflect differences in research methods, inmate populations, and prison conditions that affect privacy and opportunity. Researchers emphasize that classifying prison sex as either consensual or forced is often overly simplistic: an inmate may provide sexual favors to another in return for protection or for other reasons. Better information on sexual transmission of HIV in prisons may eventually become available as a result of the

Prison Rape Elimination Act of 2003, which requires the Justice Department to collect statistics on prison rape and to provide funds for educating prison staff and inmates about the subject.

Theodore M. Hammett of the Domestic Health, Health Policy, and Clinical Research Division of Abt Associates, a Massachusetts-based policy research and consulting firm, acknowledged that for political reasons U.S. prisons are unlikely to accept needle-exchange programs, but he said adoption of other HIV-prevention measures is long overdue. “Condoms ought to be widely available in prisons,” he said. “From a public health standpoint, I think there’s little question that that should be done. Methadone, also — all kinds of drug [abuse] treatment should be much more widely available in correctional settings.” Methadone maintenance programs for inmates have been established in a few jails and prisons, including those in New York City, Albuquerque, and San Juan, Puerto Rico. Brown University’s Rich is currently conducting a randomized, controlled trial at the Rhode Island facility, sponsored by the National Institutes of Health, to determine whether starting methadone maintenance in heroin-addicted inmates a month before their release will lead to better health outcomes and reduced recidivism, as compared with providing either usual care or referral to community methadone programs at the time of release.

At the Rhode Island prison, the medical program focuses on identifying HIV-infected inmates, treating them, teaching them how to avoid transmitting the virus, addressing drug dependence, and when they’re released, referring

them to a program that arranges for HIV care and other assistance, including methadone maintenance treatment if needed. The prison offers routine HIV testing, and 90% of inmates accept it. One third of the state's HIV cases have been diagnosed at the prison. "These people are a target population and a captive one," noted Rich. "We should use this time" for health care and prevention. Nationally, 73% of state inmates and 77% of federal inmates surveyed in 2004 said they had been tested for HIV in prison. State policies vary, with 20 states reportedly testing all inmates and the rest offering tests for high-risk groups, at inmates' request, or in specific situations. Researchers said inmate acceptance rates also vary widely, depending on how the test is presented. Drugs for treating HIV-infected prisoners are not covered by federal programs, and prison budgets often contain inadequate funding for

health services. "You can see how, in some cases, there could be a disincentive for really pushing testing," Hammett said.

Critics of U.S. penal policies contend that incarceration has exacerbated the HIV epidemic among blacks, who are disproportionately represented in the prison population, accounting for 40% of inmates. A new report by the National Minority AIDS Council calls for routine, voluntary HIV testing in prisons and on release, making condoms available, and expanding reentry programs that address HIV prevention, substance abuse, mental health, and housing needs as prisoners return to the community. "Any reservoir of infection that is as large as a prison would warrant, by simple public health logic, that we do our best . . . to reduce the risk of transmission" both inside and outside the walls, said Robert E. Fullilove of Columbia University's Mailman School of

Public Health, who wrote the report. "The issue has never been, Do we understand what has to happen to reduce the risks? . . . It's always been, Do we have the political will necessary to put what we know is effective into operation?"

An interview with Theodore Hammett can be heard at [www.nejm.org](http://www.nejm.org).

Dr. Okie is a contributing editor of the *Journal*.

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## Concurrent Sentences — Dialysis in the State Penitentiary

Eric M. Gibney, M.D.

I was driving the last desolate stretch of road to the state penitentiary, headed to visit patients undergoing dialysis. I was well outside my comfort zone of the university transplantation clinic, and I was tense. The prison loomed large in my imagination, a caricature of every forbidding, barbed-wire-and-cinderblock jailhouse I had seen in the movies. Along the road, a sign marked the boundary of the Great Dismal Swamp.

I called ahead to Ms. Tuttle,

the nurse who would meet me at the gate. "Tuttle," she answered the phone. The others would identify themselves similarly — a curt surname only. Prison culture had seeped into everyone; the nurses had started to sound much like the guards and the inmates.

In the parking lot, I shed all the badges of my profession — the cell phone, the pager, even the stethoscope — and stashed them in my glove compartment. The prison was more sterile and less frightening than I had imag-

ined. Tuttle found me, and after being marched through a metal detector, I climbed into a golf cart with her for the ride over to Building G, where 15 prisoners had been on dialysis since 4 a.m. The next shift started at 9, and I was scheduled to meet my patients.

I had been to a prison ward before, as a medicine resident visiting sick inmates on the 19th floor of Bellevue Hospital in New York. I remembered the prison doctor there, Rip Hafer, whose giant stature and booming voice had