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Making the Case for Health Interventions in Correctional Facilities

Theodore M. Hammett

The papers in this special issue of the *Journal of Urban Health* all help to make different parts of the case that there should be more and better health interventions in prisons and jails. This is an extremely important public policy debate, but it is a difficult one for the proponents of interventions to win because prisoners are generally a despised and marginalized portion of our society that has little or no political influence. To prevail in this policy debate, it is necessary to establish three critical points:

1. Correctional facilities are important settings for interventions because here a population that bears a disproportionately heavy burden of disease and that is disproportionately affected by related risk behaviors may be efficiently reached with interventions.
2. It is possible to mount successful health interventions among inmate populations.
3. Such successful interventions stand to benefit not only inmates and ex-offenders, their families, and partners, but also the public health at large, especially in the urban communities from which most prisoners come, and ultimately the public treasury.

These propositions have been asserted by numerous writers,[1–4] but have not yet been proven well enough to have a substantial influence on policymakers and budget makers.

Sabin et al.[5] present data that are important in helping establish the disproportionate burden of disease among inmates. They analyzed data from correctional facility human immunodeficiency virus (HIV) testing funded by the Centers for Disease Control and Prevention (CDC) between 1992 and 1998. These data come only from correctional systems with voluntary or on-request testing, so they probably understate the true HIV seroprevalence among inmates. This is because at least some HIV-infected inmates will not come forward for voluntary testing because they fear discrimination or mistreatment and, in any case, may not believe that they will receive proper medical care. Nevertheless, Sabin et al. found that 3.4% of tests were positive among more than 500,000 HIV tests administered in correctional facilities in 48 jurisdictions across the nation. This represents 11 times a national HIV seroprevalence estimate of 0.3% (the CDC's estimate of 750,000 HIV-infected

Dr. Hammett is a vice president at Abt Associates Inc.

Correspondence: Theodore M. Hammett, Abt Associates Inc., 55 Wheeler Street, Cambridge, MA 02138-1168. (E-mail: ted_hammett@abtassoc.com)

individuals divided by the US population of 275,000,000). Moreover, fully 56% of the positive tests analyzed for the Sabin paper were for individuals learning their status for the first time.

In their description of the 1998 results of the voluntary HIV testing and counseling program of the Maryland Department of Corrections, Kassira and colleagues[6] provide additional evidence of the disproportionate burden of disease among inmates. The HIV seropositivity rate among Maryland prisoners (3.3%) was similar to the national rate for prisoners found by Sabin et al. (3.4%); thus, it was similarly many times higher than the estimated HIV prevalence in the total US population. As has been found in many jurisdictions, HIV-seropositivity rates among Maryland inmates were higher for females (5%) than for males (3%), underscoring the critical importance of services designed to meet women's particular needs. Overall, as elsewhere, the acquired immunodeficiency syndrome (AIDS) cases diagnosed among Maryland inmates were concentrated among African Americans (91%) and injection drug users (84%).

Other research has contributed to demonstrating that infectious diseases, chronic diseases, and other medical and mental health problems are disproportionately found in correctional populations.[7,8] All of these findings point clearly to the importance of correctional settings for diagnosing disease in a population that generally had poor access to diagnostic services and other care prior to being incarcerated.[9]

Thiede et al.[10] provide another part of the case for corrections-based health interventions. They show that risk behaviors for HIV and hepatitis C are extremely prevalent among inmates, in this case, a group of recently arrested injection drug users in Seattle, Washington. These risk factors include sharing of injection equipment and unprotected sex. Only a small percentage of these individuals had been vaccinated against hepatitis B, again demonstrating the extent to which this population has been underserved. Other research indicates that about 80% of all state and federal inmates have some form of substance abuse problem, and about 25% have histories of injection drug use.[11]

The work of Rich et al.[12] addresses the next component of the necessary proof: Health interventions can be successfully mounted among prisoners. Their paper, together with previous publications from their group,[13–16] collectively documents the successful implementation of a program of continuity of care, discharge planning, and community linkage for incarcerated men and women in Rhode Island who have or are at high risk for HIV infection; reduced rates of recidivism were found among participants in this program. An extremely important contribution of Rich et al. is to show that a harm reduction approach can work; that is, ex-offenders, even those who continue to use drugs (as many of the Rhode Island participants do), can still be retained in HIV medical care and other community-based services if they are given adequate support. These findings help to refute the common belief that inmates and ex-offenders have no concern for their health, and therefore, efforts to engage and retain them in health services are a waste of time and resources. Kassira et al.[6] present evidence of positive outcomes, in terms of HIV-related knowledge and behavioral intentions, among participants in a Maryland prison-based prevention case management program.

Richie et al.[17] describe Health-Link, an intervention that targets drug-using women in New York City jails. This comprehensive program provides case management and social support in jail and a year of postrelease services designed to facilitate successful community reintegration. A previous report on Health-Link,[18] using

a quasi-experimental design, found a significant reduction in rearrest rates among women who received community services. This model is currently being tested in a randomized trial.

Another important feature of Health-Link is that it operates on multiple levels. It empowers and supports service providers as well as clients and seeks to influence larger policy decisions regarding programs and services for vulnerable and underserved populations, such as incarcerated women, as well as the communities from which they come and to which they return.

The Hampden County (Massachusetts) jail, which serves the Springfield-Holyoke metropolitan area, has also worked in concert with community health centers and many other community-based providers to demonstrate a "public health model of correctional health care." Inmates with serious medical or mental health problems are matched by the ZIP code of their residence to a community health center. Dually based teams of providers care for these inmates both in the jail and at their assigned community health center following their release. Initial data from the program, which is currently undergoing a formal evaluation, show that 80% of patients appeared for their first post-release appointments at their assigned community health centers.[19]

Unfortunately, however, most correctional systems have nothing like this systematic discharge planning and community linkages for inmates leaving their facilities with or without medical and mental health problems.[20] The consequences of inadequate discharge planning, linkage, and support have been demonstrated in a North Carolina study of inmates with HIV disease. Those who were treated with highly active antiretroviral therapy while they were incarcerated achieved undetectable HIV viral loads; when they were released and reincarcerated, they had experienced substantial rebounds in viral load when tested on return to prison. By contrast, a group of inmates who remained continuously incarcerated suffered no such viral load rebounds.[21]

The last, and perhaps most critical, component of the proof of the value of health interventions in correctional facilities is to show that these interventions can benefit the larger public health and save the taxpayers money. Without this part of the proof, the overall effort is likely to fail because the public and politicians have a distinct lack of interest in programs, no matter how successful, that benefit only inmates and their families. Rich et al.[12] show that the Rhode Island program is relatively inexpensive, while Varghese and Peterman,[22] using standard cost-effectiveness analysis techniques, demonstrate that HIV counseling and testing in correctional settings will save substantial public expenditures downstream in terms of averted cases of HIV. This results both from prevention of secondary transmission by index cases and from the effects of counseling in helping uninfected individuals avoid acquiring HIV.

The papers in this issue all make important contributions to the three-part proof of the value of correctional health interventions, and they help establish the need for more aggressive disease screening and case finding, disease prevention, medical and mental health treatment, discharge planning, and community linkages for correctional inmates.

However, additional research is still needed to establish conclusively all three parts of the proof. More data must be marshaled to demonstrate the disproportionate burden of disease among inmates and ex-offenders and their poor prior access to health care. All types of health interventions in correctional settings must receive more rigorous evaluation. Admittedly, this is challenging because of the added hu-

man subject protections that have properly been erected around any proposed research involving prisoners. In particular, randomized controlled trials of interventions and even quasi-experimental research designs face serious ethical problems in populations that have been, and continue to be, so woefully underserved. Nevertheless, it is ultimately sound research and evaluation findings that may carry the day in the policy debate over the value and importance of health interventions in correctional facilities. Finally, and perhaps most important, evaluations of correctional health interventions must include, at every point and for every component, economic analyses with the potential to demonstrate the benefit of these programs for the larger public health and for the downstream costs of publicly funded programs.

REFERENCES

1. Glaser J, Greifinger RB. Correctional health care: a public health opportunity. *Ann Intern Med*. 1993;118:139–145.
2. Polonsky S, Kerr S, Harris B, et al. HIV prevention in prisons and jails: obstacles and opportunities. *Public Health Rep*. 1994;109:615–625.
3. Gaiter J, Doll L. Improving HIV/AIDS education and prevention in prisons is good public health policy [editorial]. *Am J Public Health*. 1996;86:1201–1203.
4. Hammett TM, Gaiter J, Crawford C. Reaching seriously at-risk populations: health interventions in criminal justice settings. *Health Educ Behav*. 1998;25:99–120.
5. Sabin KM, Frey RL Jr, Horsley R, Greby SM. Characteristics and trends of newly identified HIV infections among incarcerated populations: CDC HIV voluntary counseling, testing, and referral system, 1992–1998. *J Urban Health*. 2001;78:241–255.
6. Kassira EN, Bauserman RL, Tomoyasu N, Caldeira E, Swetz A, Solomon L. HIV and AIDS surveillance among inmates in Maryland prisons. *J Urban Health*. 2001;78:256–263.
7. Hammett TM, Rhodes W, Harmon P. "Breaking the silence" on prisons and jails as epicenters of HIV/AIDS and other infectious diseases in the United States. Paper presented at: Thirteenth International AIDS Conference; July 12, 2000; Durban, South Africa. Poster abstract TuPeD3554.
8. National Commission on Correctional Health Care. *The Health Needs of Soon-to-Be-Released Inmates*. Draft Report Submitted to the National Institute of Justice; 2000.
9. Conklin T, Lincoln T, Tuthill R. Self-reported health and prior health behaviors of newly admitted correctional inmates. *Am J Public Health*. 2000;90:1939–1941.
10. Thiede H, Romero M, Bordelon K, Hagan H, Murrill CS. Using a jail-based survey to monitor HIV and risk behaviors among Seattle area injection drug users. *J Urban Health*. 2001;78:264–278.
11. National Center on Addiction and Substance Abuse at Columbia University. *Behind Bars: Substance Abuse and America's Prison Population*. New York: National Center on Addiction and Substance Abuse; 1998.
12. Rich JD, Holmes L, Salas C, et al. Successful linkage of medical care and community services for HIV-positive offenders being released from prison. *J Urban Health*. 2001; 78:279–289.
13. Dixon PS, Flanigan TP, DeBuono BA, et al. HIV infection in prison: meeting the health care challenge. *Am J Med*. 1993;95:629–635.
14. Flanigan TP, Kim JY, Zierler S, Rich J, Vigilante K, Bury-Maynard D. A prison release program for HIV-positive women: linking them to health services and community follow-up [letter]. *Am J Public Health*. 1996;86:887.
15. Vigilante KC, Flynn MM, Affleck PC, et al. Reduction in recidivism of incarcerated women through primary care, peer counseling, and discharge planning. *J Womens Health*. 1999;8:409–415.
16. Farley JL, Mitty JA, Lally MA, et al. Comprehensive medical care among HIV-infected

incarcerated women: the Rhode Island experience. *J Womens Health Gender Based Med*. 2000;9:51–56.
17. Richie BE, Freudenberg N, Page J. Reintegrating women leaving jail into urban communities: a description of a model program. *J Urban Health*. 2001;78:290–303.
18. Freudenberg N, Wilets I, Greene MB, Richie BE. Linking women in jail to community services: factors associated with rearrest and retention of drug-using women following release from jail. *J Am Med Womens Assoc*. 1998;53:89–93.
19. Conklin TJ, Lincoln T, Flanigan TP. A public health model to connect correctional health care with communities. *Am J Public Health*. 1998;88:1249–1251.
20. Hammett TM, Harmon P, Maruschak L. *1996–1997 Update: HIV/AIDS, STDs, and TB in Correctional Facilities*. Washington, DC: National Institute of Justice, Centers for Disease Control and Prevention, and Bureau of Justice Statistics; 1999. Publication NCJ 176344.
21. Stephenson B, Wohl D, Kiziah N, et al. Release from prison associated with increased HIV RNA at time of reincarceration. Paper presented at: Thirteenth International AIDS Conference; July 11, 2000; Durban, South Africa. Oral abstract TuOrD323.
22. Varghese B, Peterman TA. Cost-effectiveness of HIV counseling and testing in US prisons. *J Urban Health*. 2001;78:304–312.