Incarceration, African Americans and HIV: Advancing a Research Agenda

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Incarceration is a crisis among African Americans, and the prevalence of HIV/AIDS in incarcerated men and women is 3–5 times that of the general population. We explore the potential implications of the widespread incarceration of African Americans on HIV risk and HIV outcomes in: 1) the current and formerly incarcerated, 2) their sexual partners, and 3) the communities impacted by incarceration. We set forth a research agenda for understanding and ameliorating the negative impacts incarceration and conclude that the African-American population's ability to successfully address the HIV/AIDS epidemic requires a coordinated and evidence-based response to the challenge of effectively preventing, managing and treating HIV in populations affected by incarceration.

Key words: HIV/AIDS ■ epidemiology ■ etiology ■ prevention ■ African Americans ■ race/ethnicity ■ health disparities

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IMPORTANCE

Widespread incarceration is a growing crisis in the African-American community. It results from the cumulative effects of poverty and undereducation, the loss of the manufacturing job base in urban centers, the breakdown of black families, the war on drugs, disparate sentencing laws and discrimination within the criminal justice system. These factors contribute to numerous racial/ethnic health disparities, including HIV/AIDS. Given that the levels of HIV/AIDS in incarcerated men and women are 3–5 times that of the general population,[1] that significant gaps in HIV treatment and prevention exist in incarcerated settings (Sylla M, "HIV treatment in U.S. jails and prisons," *Bulletin of Experimental Treatments for AIDS*, in press, www.sfaf.org/beta/) and that concern about African-American men being infected with HIV during incarceration is prevalent among African Americans,[2] we focus this article on pertinent research and related issues surrounding the epidemics of HIV/AIDS and incarceration. HIV transmission does occur in custody; however, many experts conclude from the available data that most HIV-infected inmates are likely infected prior to entering jail or prison.[3-8] Nevertheless, incarceration contributes to HIV risk in African-American communities in myriad other ways (discussed below) and has the potential to affect treatment outcomes. These factors warrant increased intervention and focused study to better understand and address the impact of incarceration on the African-American HIV/AIDS epidemic.

Current Trends

Incarceration rates in the United States have skyrocketed since 1970 and now directly or indirectly affect a substantial portion of African-American families. Approximately, 2.2 million Americans are incarcerated, a nearly 400% increase since 1980.[9] An additional 5 million people are on parole or probation.[10] In just the 12-year period from 1986–1997, incarceration rates for African Americans nearly doubled.[11] One in 21 African-American men and one in 279 African-American women are currently incarcerated,[12] and it is estimated that almost one in three African-American men will be imprisoned at some point during their lives.[13] Rates of imprisonment for African-American men are 6.6 times higher than for white men and 2.6 times higher than for Hispanic men. Rates for African-American women are 3.8 times higher than for white women and 2.4 times higher than for Hispanic women.[12] Perhaps most telling

of the community-level impact of these trends are data indicating that approximately 7% of African-American children have one or more parents who are currently in jail or prison.[14]

Associated Risk Factors

Persons at risk for incarceration are more likely than others to be at high risk for HIV infection. This is particularly true for females, as prisons are the only setting in the United States where HIV prevalence is higher in females than in males, with approximately 2.6% of female and 1.8% of male state prison inmates known to be HIV infected.[1] Incarcerated populations have a high prevalence of characteristics that are often related to risky behavioral practices and HIV infection. These risk characteristics include drug use,[15,16] low socioeconomic status,[17] exchange of sex for money or drugs,[18] multiple sex partners,[19] a high prevalence of bacterial sexually transmitted infections (STIs),[20-23] mental illness,[24] and histories of sexual abuse and assault.[17] In addition, incarcerated individuals are more likely to be African American and, compared to other racial/ethnic groups, non-Hispanic blacks experience higher rates of HIV infection in every behavioral risk group.[25] African Americans constitute just 13% of the American population[25] but make up 44% of all prison and jail inmates[12] and half of all newly reported HIV infections.[25] *Further, African-American females make up two-thirds of newly reported HIV cases in females and 34% of all female inmates.*[25] Finally, research has shown that HIV-infected people are frequently incarcerated during the course of their disease, with an estimated 20–26% of all Americans living with HIV/AIDS incarcerated at some point in each year.[26]

WHAT IS KNOWN

Impacts of Incarceration

High incarceration and reincarceration rates negatively impact African-American communities by reducing opportunities for economic and educational advancement; diminishing political participation; decreasing the numbers of available sexual and marriage partners for African-American women; disrupting existing sexual relationships and family lives; and changing norms related to sex, monogamy, violence and drug use.[27-31] These patterns are particularly evident in urban areas with very high incarceration rates. One researcher estimated that three-quarters of African-American males in Washington, D.C. could expect to be incarcerated in their lifetimes and that in neighborhoods with the highest incarceration rates, the male:female gender ratio is just 62:100.[30] Incarceration can, however, also provide a window of opportunity for reaching at-risk individuals with generally low healthcare access for HIV-related prevention, testing and care services.[28,32,33] For example, one study indicated that 75% of HIV-infected inmates initiated their first antiretroviral treatment while incarcerated.[34] Unfortunately, for those receiving HIV-related care, incarceration and/or release can sometimes disrupt HIV treatment regimens and lead to a loss of access to vital ancillary services.[28,31,35] Given the complex and interrelated ways in which incarceration impacts inmates, their personal networks and the contexts in which sexual relationships occur in African-American communities, research, resources and interventions are needed to reduce the dramatic black/white disparities in incarceration rates; ameliorate the negative consequences of high incarceration rates; and document the impact of various incarceration-related policies on HIV treatment, adherence and care utilization.

In-Custody HIV Transmission

In-custody HIV transmission can occur through sexual activity, needle-sharing for drug injection, tattooing with unsterilized equipment, and contact with blood or mucous membranes through violence. A number of published case studies and a smaller number of retrospective cohort studies have described cases of HIV transmission in U.S. inmates that occurred during incarceration.[36-42] More recently, the Centers for Disease Control and Prevention (CDC) examined HIV seroconversion in 68 of 88 prison inmates known to have seroconverted between 1992 and 2005 in the majority (63%) African-American, Georgia-state prison inmate population. It should be noted that the known seroconverters represented a small percentage (9%) of HIV-infected prisoners housed in October 2005.[43] Three other retrospective U.S.-based studies estimated HIV incidence rates in incarcerated men that ranged from 0–0.41% per year.[37,39,41] In three studies involving a total of almost 6,000 prison inmates who had been continuously incarcerated since 1977 or 1978, 52 identified HIV cases were likely to have seroconverted during incarceration periods of >15 years each (Coe and Schumann, unpublished data, 1995).[40,42] Other data indicate that incarcerated individuals report higher participation in risky behaviors outside rather than inside of prison and jail settings.[3,5,6] For example, a Los Angeles-based case-control study to examine the impact of incarceration on HIV risk in African-American men did not find that incarceration was a risk factor for infection and found that those men who reported anal sex with other men were more likely to report this activity prior to and after, rather than during, periods of incarceration.[6] Finally, the large number of studies finding high HIV prevalence in inmates at jail or prison entry (Harawa NT, Bingham TA, Butler QR, et al., unpublished data),[37,44-49] and in female inmates who are unlikely to be infected through in-custody sexual transmission[44,45,47,49] further indicates that the elevated HIV prevalences seen in inmates compared with the general population may result largely from transmission occurring prior to, rather than during, incarceration.

In-Custody HIV Prevention and Care

HIV testing at entry is mandatory in 20 state prison systems; however, testing prior to release is required in just three. With such inconsistent testing policies, no system-wide data exist on the rates of intraprison HIV transmission. Although testing is made available in all other correctional settings and is generally required in cases of sex-related crime charges and potential exposure of infectious body fluids to personnel or other inmates,[1] recommendations for universal offerings of HIV testing in correctional institutions[50] are a long way from being met. Other HIV-prevention services are available in an inconsistent or incomplete fashion throughout the system. They include provision of audiovisual or written educational materials, instructor-led educational modules, peer-education programs, prevention case management and access to condoms;[51-55] however, the latter is limited to only two prison and five jail systems in the United States (<1% of the incarcerated population).[2,8] Bleach, for the cleaning of injection equipment, is distributed in just one facility.[51] Although in-custody needle exchange programs have been successfully implemented in a number of international settings[56] and community-based exchange programs exist in many U.S. cities, no U.S. prison or jail facilities provide needle exchange.[51] This is true despite estimates that significant portions of incarcerated populations are injection-drug users.[26]

Treatment for HIV infection is made available throughout the correctional system as part of the medical care constitutionally required for inmates. Nevertheless, limitations to this care include insufficient provider expertise, nursing shortages and inadequate access to HIV pharmaceuticals (Sylla M, "HIV Treatment in U.S. Jails and Prisons," *Bulletin of Experimental Treatments for AIDS*, in press. www.sfaf.org/beta/).[57] For example, only 43% of correctional care providers recently surveyed stated that an HIV specialist was "often" available to see patients at the facility where they worked, and 38% reported that a specialist was never available. Conversely, 93% of respondents involved with community HIV care reported that an HIV specialist was "often" available to see patients at the clinic/hospital where they worked, and none reported that a specialist was "never" available.[58] Further, delays in HIV treatment and care of new inmates and treatment interruptions resulting from transfers or disciplinary action can lead to missed medications and the possible emergence of drug-resistant HIV strains, particularly in jail settings (Sylla, *Ibid*.). Finally, HIV stigma, the lack of privacy and provider distrust may also reduce utilization of HIV treatment in many jail and prison settings.[56,57] For example, inmates often lack any type of real confidentiality to prevent information about their HIV status from reaching guards or other inmates, disclosure can lead to ostracism or abuse, and known HIV-infected prisoners are sometimes segregated or prevented access to certain programs and privileges available to other prisoners (Sylla, *Ibid*.).

WHAT IS NOT KNOWN

Impacts of Incarceration

Research is needed to determine how both incarceration itself and the high rates of incarceration within African-American communities affect HIV risk behaviors and HIV incidence among: 1) those incarcerated, 2) the sexual partners and personal networks of those left behind, and 3) the community at large. A small number of cross-sectional studies have examined HIV-related behaviors in incarcerated persons[3,5,6,60,62] and their partners,[52,61,62] and qualitative and contextual research has documented the negative influences of incarceration on the expectations of sexual partners.[27,29,31] In addition, ≥1 ecologic study has associated changes in AIDS incidence in African-American communities with increases in incarceration rates of African-American men.[63] These studies provide a template for moving forward with research that more comprehensively examines the complex influences of incarceration on HIV risk over time. Addressing these questions will require cross-sectional and longitudinal studies to examine individual-level risk behaviors during periods of incarceration and release, HIV antibody status at entry and release from jail or prison, and population-level changes in infection rates and risk behaviors over periods in which incarceration rates rise or fall.

In-Custody HIV Transmission

Given the widespread concern about the contribution of HIV transmission during incarceration to high HIV rates in African-American men, research is needed to estimate the percentage of all HIV infections in African-American men that are directly attributable to transmission during incarceration. The benefit of such information is that it will help to both garner resources for in-custody HIV prevention efforts and properly direct community concerns regarding the role of incarceration in the HIV epidemic. The commonly held belief that HIV transmission through male-to-male sex during incarceration is a principal reason for elevated rates of HIV in African-American communities may inadvertently stigmatize incarcerated African-American men and distract attention and political will from addressing the other effects of incarceration outlined here[8] and the other factors that contribute to the high HIV prevalence in African-American communities. These other factors include unprotected consensual sex between men outside of jails and prisons; sharing of needles and injection equipment; concurrent sexual partnerships and other sexual mixing patterns; lack of access to healthcare, effective prevention education and other resources; racism; gender inequalities; and homophobia.

In-Custody and Postrelease HIV Treatment and Care

Much of the information on deficits in access to appropriate medical care for HIV infection during incarceration is based on anecdotal evidence or legal actions that took place in certain jail or prison systems.[64] Systematic state-by-state data are needed on inmates' levels of access to appropriate medical care for HIV infection in federal, state and local jurisdictions. More than 95% of prison inmates will be released at some point during their lifetime,[65] and many will face competing needs and comorbid conditions (e.g., mental illness and substance dependence) that may hinder HIV care utilization and treatment adherence on release. The immediate postrelease period has been identified as involving very high risk for mortality,[66] and few services are currently in place to ensure continuity of medical care on release.[28,32] Hence, more transitional HIV case-management programs, which have been successfully implemented in a number of facilities,[7,67] are urgently needed. To most effectively broaden transitional HIV case management services, more data are needed on the current penetration of these programs and the best practices for their implementation.

RECOMMENDATIONS

To better assess how high incarceration rates affect HIV risk behaviors and rates among each group, we suggest the following types of research in each potentially affected segment of the African-American community:

Those incarcerated:

- Voluntary cross-sectional studies with incarcerated individuals using anonymous, self-administered interview techniques to examine risk behaviors, treatment access, and adherence during and prior to incarceration
- Voluntary longitudinal studies among newly incarcerated individuals, involving HIV testing at both entry and prior to release, to estimate the in-custody incidence of HIV infection

Those left behind:

- National HIV-related surveys and those addressing other potentially health jeopardizing conditions (e.g., Behavioral Risk Factor Surveillance, the National Survey of Family Growth, the CDC HIV Behavioral Surveillance and the National Survey on Drug Use and Health) should include questions related to partners' incarceration status. Similar studies of youth should examine parents' incarceration status (e.g., Youth Risk Behavioral Surveillance).
- Studies examining sexual concurrency and multiple partnerships are helping to elucidate the reasons behind the wide black/white disparities in HIV/AIDS and other STIs.[27,68] These should routinely assess histories of incarceration in the respondent and his or her sexual partner(s) to better understand the contribution of incarceration to patterns of concurrency.

The African-American community at large:

- Studies of HIV-related risk behaviors should routinely include questions related to the impact of incarceration on: 1) participants' expectations of themselves and their potential partners regarding fidelity and 2) families'/partners' access to quality healthcare, benefits, employment opportunities and housing.
- Ecological studies should examine associations between incarceration rates and reported HIV/AIDS and STI cases and HIV risk behaviors.

To determine the impact of incarceration on HIV infection in African-American men:

- Available data on the rates of HIV transmission during incarceration, rates of incarceration, and reported HIV cases in African-American men should be summarized to estimate the proportion of HIV infections in African-American males that are likely attributable to transmission during incarceration.
- In addition to allowing for the development of effective discharge and re-entry services for HIV-positive persons, the implementation of routine voluntary HIV testing prior to release in states with routine or mandatory testing at entry would allow for additional direct estimates of the rate of HIV transmission in these custody settings.

To identify and address gaps in HIV treatment and care in custody:

- Specific barriers to the implementation and utilization of routine, voluntary HIV testing services should be examined and effective strategies for overcoming them identified.
- A comprehensive audit of average time to HIV treatment, access to appropriate HIV medical care (e.g., levels of access to antiretroviral medications; HIV specialist physicians; and resources for serving inmates with comorbid conditions, particularly mental illness), and transitional case management services for HIV-infected inmates throughout federal and state prison systems and local jail facilities should be established.
- Minimum standards for HIV-/AIDS-related care and treatment services in correctional facilities

should be established and maintained in concert with the National Commission on Correctional Health Care.

Such research will focus much-needed attention on a population and a problem that is frequently ignored or marginalized. Further, by illustrating the ways in which incarceration impacts not just those who are detained but their partners, families and communities, the research has the potential to marshal political will for programs and policies that reduce the damaging impact of widespread incarceration on African-American populations' ability to successfully address the HIV/AIDS epidemic. Although this manuscript's goal was to suggest ways to advance research on the impact of incarceration on the African-American HIV/AIDS epidemic, we also wish to underscore the urgency of implementing policy changes that will lower overall incarceration rates, reduce racial/ethnic inequities in sentencing, improve in-custody medical treatment, enhance continuity of care on release and otherwise facilitate the successful re-entry and reintegration into society of former prisoners.

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