



HIV/AIDS

A State of Emergency

*Research Agenda to Combat HIV/AIDS
among African Americans*



Part I

1. African American Sexuality and HIV/AIDS: Recommendations for Future Research
2. Incarceration, African Americans, and HIV: Advancing a Research Agenda
3. Combating HIV Among African-American Men Who Have Sex With Men: Advancing a Research Agenda

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HIV/AIDS and the African-American Community: A State of Emergency

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HIV and AIDS disproportionately affect African Americans more than any other racial or ethnic group in the United States. Representing only 13% of the U.S. population, African-American adults and adolescents comprise more than half of all HIV/AIDS cases reported to the Centers for Disease Control and Prevention. The present incidence and prevalence of HIV/AIDS in the black community in the United States is of crisis proportions. The situation as it stands today is tantamount to a state of emergency for African Americans.

Key words: HIV/AIDS ■ African Americans

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INTRODUCTION

Over the past few decades, the proportion of new cases diagnosed in this population has grown substantially. In 1986, 25% of HIV/AIDS cases were among African Americans. By 2001–2004, African Americans represented 51% of newly diagnosed infections.¹ The wide-spread impact of this disturbing epidemic is intensifying. Accordingly, the medical community has been charged with the responsibility of providing appropriate care for affected members of the African-American community, as well as advancing the design and implementation of strategies to prevent new infections from occurring.

Several national and local prevention plans have been executed in response to these alarming trends across the country. However, the approaches that may have helped decrease the spread of HIV among white homosexual men have not proven to be as successful in meeting the prevention needs of the African-American community. Comparing the 1980s to the 1990s, the proportion of AIDS cases in white men who have sex with men declined, whereas the proportion of cases in females and

males in minority populations increased, particularly among African Americans and Hispanics.² Thus, it is important for healthcare providers and community leaders to achieve an understanding of the characteristics of this disease as they relate to African-American individuals, from important risk factors to contributing community beliefs and access to healthcare.

Despite recognition and attention to these issues, albeit focal, elimination of the disparities in the rates of new infection in minority populations is an enormous task. In a 1998 press release by the Kaiser Family Foundation, Dr. Sophia Chang, director of HIV programs, stated “the challenge now is to convert this high level of awareness and concern into greater action by all those involved in the fight against AIDS.”³ The objective of this review of the current state of HIV/AIDS in African Americans is to provide such heightened awareness amongst the members of the medical community, in hopes that we may arm ourselves with the weapons of knowledge and responsiveness to urgently combat this crisis.

RECENT STATISTICS

African Americans comprise approximately 13% of the United States population according to the 2000 U.S. census.⁴ However, a 2006 Centers for Disease Control (CDC) *Morbidity and Mortality Weekly Report (MMWR)* examining HIV data from 33 states with long-term, confidential name-based reporting found that African Americans accounted for 18,991 (50.5%) of the estimated 37,331 new HIV/AIDS diagnosed in the United States between 2001 and 2005.¹ The details of the characteristics of the populations examined in the 33 states are listed in Table 1.

In 2005, it was estimated that 469,298 individuals were living with HIV/AIDS, and African Americans were 49% of the estimated 38,096 new diagnoses that year (Figure 1).⁵ The estimated annual HIV/AIDS diagnosis rate among black males was 124.8 per 100,000 population and 60.2 per 100,000 among black females, both higher than the rates for all other racial/ethnic populations.¹⁵ Among males, the annual HIV/AIDS diagnosis black/white rate ratio (RR) of 6.9 was higher than the

Hispanic/white RR of 3.1. Among females, the black/white RR was 20.1 and the Hispanic/white RR was 5.3.

African-American infants and children are also affected by these disparities. In 2005, 91 (65%) of the estimated 141 infants perinatally infected with HIV were black.⁵ Of the 68 U.S. children (age <13) who received new AIDS diagnoses, 46 (68%) were black. In addition to disparities in infection rates, there are also differences found in the prognoses for infected children and adults. Of persons diagnosed with AIDS during 1997–2004, a smaller proportion of blacks (66%) were alive after nine years compared with Hispanics (74%), whites (75%), and Asian and Pacific Islanders (81%) (Figure 2).⁶

During the time period 2001–2004, HIV diagnosis rates among black males and females declined by 4.4% and 6.8%, respectively.¹ Results from a 2007 study reported similar declines among African Americans in the state of Florida.⁷ Although these declines in rates of new HIV diagnoses appear promising, they may not directly reflect trends in HIV incidence due to influences from changes in testing behavior and surveillance practices.¹⁵ Regardless of the trends (Figure 3), African Americans remain disproportionately affected by high rates of HIV/AIDS. As the number of cases continues to rise⁶ and the longevity of infected individuals increases due to advances in antiretroviral therapies, the factors contributing to these higher rates will need to be critically examined and taken into consideration.

RISK FACTORS INFLUENCING TRANSMISSION

There is no simple answer to the cause of the disparities seen in African Americans in regards to HIV/

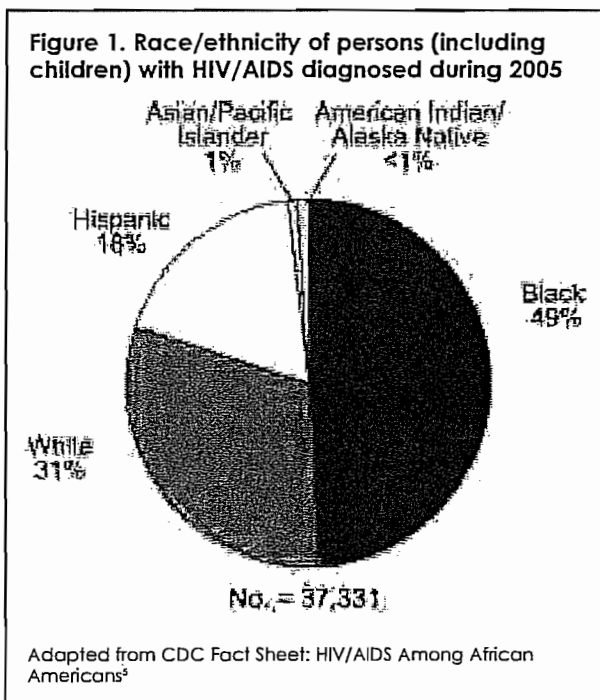
AIDS. In the past, explanations for the disproportionate epidemic focused on individual risk behaviors and race differences in activities related to sex or drug use. However, it has been recently recognized that African Americans report less risky sexual activity and drug use than their white counterparts.⁸ For example, though African-American youth do report more sexual behavior earlier than white youth,⁹ consistent use of a reliable means of contraception has a stronger association with African-American youth and adults than the white population.^{10–12} Furthermore, white adolescents are more likely to use certain illicit drugs than African Americans, initiating drug use at younger ages.¹³ In addition, a study examining the risk behaviors of female jail prisoners reported that rates of needle-sharing were significantly higher among white females than among either African-American or Latino women.¹⁴

Nevertheless, according to updated 2001–2005 *MMWR* CDC data arranged by transmission category, among HIV infected men and women with risk factors of intravenous (IV) drug use and high-risk heterosexual contact, more than half in each category were African American (men: 53.8% and 65.7%; women 58.8% and 69.5%, respectively).¹⁵ Thus, African Americans are again overrepresented in these essential categories of transmission. Most individuals with HIV/AIDS in the category of men who have sex with men (MSM) were white (42.8%), with smaller percentages of black (36.1%) and Hispanic (19.0%) individuals.

Within the African-American population alone, most HIV/AIDS diagnoses of black male adults and adolescents at the end of 2005 were classified as MSM (48%), followed by intravenous drug use (23%), high-risk heterosexual contact (22%) and MSM in combination with intravenous drug use (7%).⁵ Among black female adults and adolescents, most HIV/AIDS diagnoses were classified as high-risk sexual contact (74%), followed by IV drug use (24%). These reported statistics are displayed graphically in Figure 4. The risk factors influencing transmission among the African-American community are reviewed here individually.

Sexual Risk Factors

Among female adults and adolescents, from 2001–2005, the estimated number of AIDS cases decreased among IV drug users and increased among both females and males exposed through high-risk heterosexual contact.⁶ The data show that black women are most likely to be infected with HIV as a result of sex with men who are infected with HIV.¹⁵ Studies have postulated lack of knowledge about their male partners' possible risk factors for HIV infection, including unprotected sex with multiple partners, IV drug use or bisexuality as driving influences for this predominant mode of transmission.¹⁶ Furthermore, black women are more likely than white women to have acquired HIV heterosexually.¹⁷ Because



of the disproportionate and increasing number of heterosexually acquired cases, it has been suggested that minority communities at risk for HIV infection be considered a high priority for prevention and education programs specifically targeting heterosexually active adolescents and adults. If the risk for African-American females continues to go unrecognized, the consequences will undoubtedly be further increases in heterosexual transmission rates.

Sexual contact is also the main risk factor for black men, with male-to-male sexual contact being the predominant mode of transmission.⁵ High-risk heterosexual contact is less common as a primary risk factor for HIV/AIDS cases among black male adults and adolescents, though the rate is increasing. In the current available literature, supported hypotheses to explain the disproportionate higher incidence of HIV/AIDS in black MSM males compared to other racial groups included a higher incidence of past or current STD diagnoses as well as lack of HIV status awareness and testing early in the progression of their disease among black MSM males compared to other groups of MSM.¹⁸ From 2004–2005, the National HIV Behavioral Surveillance System (NHBS) surveyed 1,767 MSM males who frequented MSM-identified venues, such as bars, street locations, dance clubs, cafés, retail stores, gay pride events, social organizations, gyms, sex clubs and parks, in five U.S. cities. Of the black MSM males included in the study (25% of study population), 46% were HIV positive.

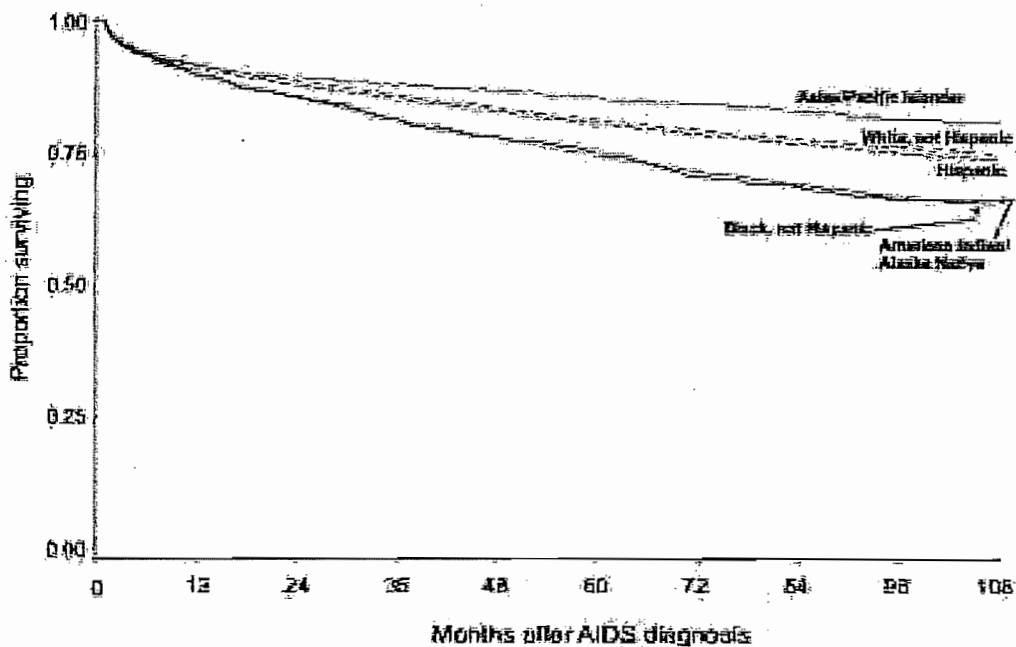
Of those HIV positive, 67% were previously unaware of their HIV status.¹⁹ These data underscore the significance of testing and improving primary prevention practices for MSM males in the black population.

Sexually Transmitted Diseases

The highest rates of sexually transmitted diseases (STDs) are found among the black population. In 2005, African-Americans were 18 times as likely as whites to have gonorrhea (representing approximately 68% of the total number of cases in 2005) and approximately five times as likely to have syphilis (comprising 41% of all primary and secondary cases in 2005).²⁰ Inflammatory STDs, such as gonorrhea, have been associated with increased HIV susceptibility and infectiousness, and may act by increasing the number of white blood cells in the genital tract or by elaborating cytokines that upregulate HIV expression and increase the viral load in the genital tract. Ulcerative STDs, such as syphilis, afford additional portals of entry through mucosal ulcerations and also recruit inflammatory cells that bind and propagate HIV infection.²¹

In short, the presence of certain STDs can increase one's chances of contracting HIV infection 3–5-fold, and an individual infected with both HIV and certain STDs has a greater chance of spreading HIV to others.²² Accordingly, the high rates of HIV infection for the African-American community may be partly attributable to a high prevalence of STDs that facilitate HIV transmission,¹⁸ and barriers to acquiring sexually transmitted dis-

Figure 2. Proportion of persons surviving, by months after AIDS diagnosis during 1997–2004 and by race/ethnicity



Adapted from CDC HIV/AIDS Surveillance Report, 2005⁴

eases should be an essential component of HIV/AIDS prevention strategies within this population.

Substance Use

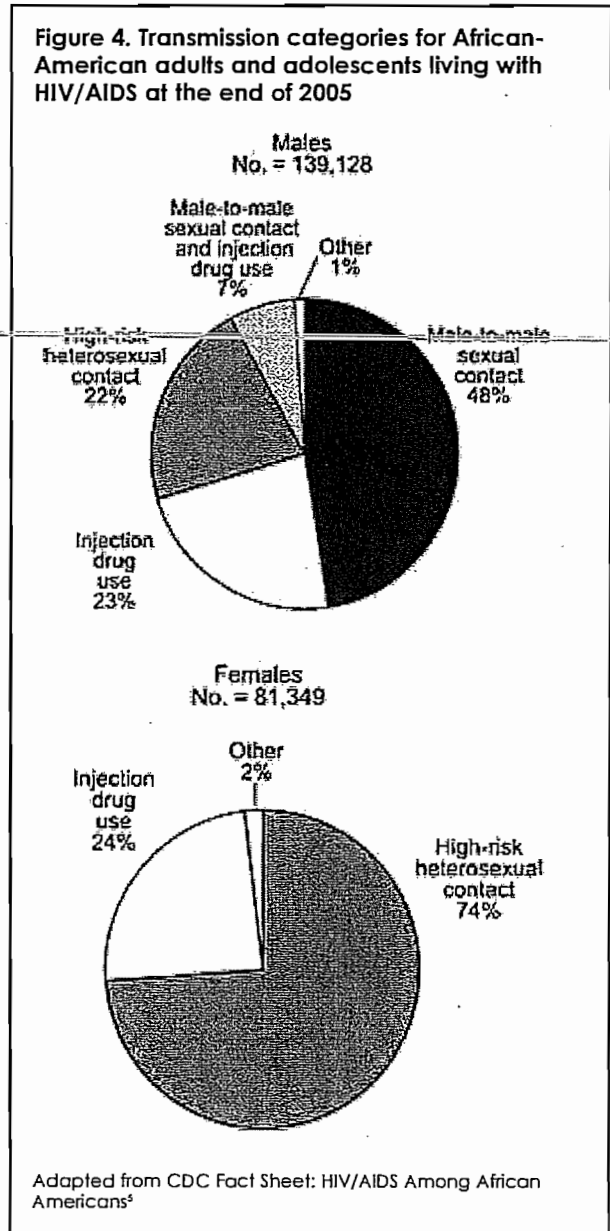
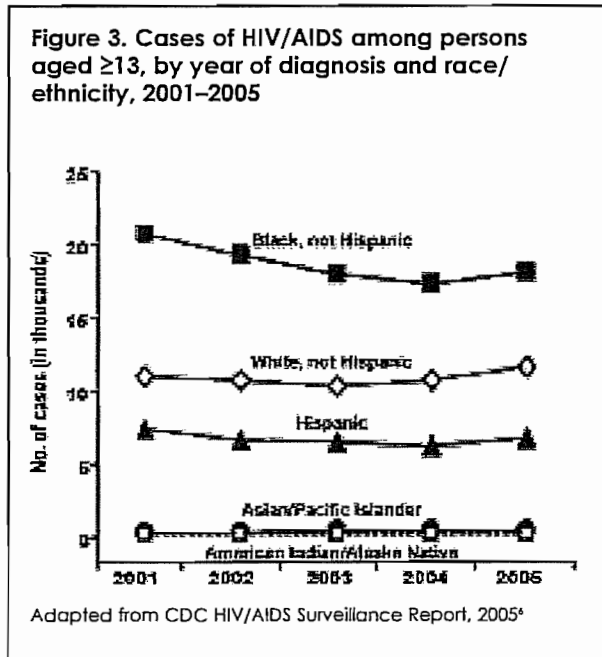
Illicit drug use is an important primary risk factor for HIV/AIDS infection among African Americans, noted to be the second leading cause of HIV infection for both black men and black women.⁶ Aside from the direct infectious risks of needle-sharing, there are also indirect mechanisms that lead to an increase HIV infection and inferior disease progression in this population. Substance users are more likely to engage in high-risk behaviors, such as unprotected sex, when they are under the influence of drugs and alcohol.⁵ Furthermore, drug use has an impact on treatment success. A study of female cocaine users, predominantly African-American women, showed that substance users were less likely than nonusers to take their antiretroviral therapies exactly as prescribed.²³ The authors concluded that HIV-infected black women substance users may require sustained treatment and counseling to help them reduce substance use and adhere to antiretroviral therapy.

Incarceration

The number of individuals in U.S. prisons and jails has increased significantly over the past decade, with nearly 1.4 million people incarcerated in U.S. federal or state prisons in 2003.²⁴ This growth is even more evident among the black community. Between 1984–1997, the rate of current incarceration among African-American men went from one in 30 individuals to one in 15.²⁵ By 2003, blacks were five times more likely than whites to have been to jail, 39% of local jail inmates were black,²⁴ and 44% of the prisoners under federal or state jurisdic-

tion were African Americans.²⁶ From another data perspective, as of 1997, an African-American male was estimated to have a one in four likelihood of going to prison in his lifetime, compared with a chance of one in 23 for a white male.²⁷ Without question, these racial disparities are devastating to the social networks, family relationships and economic stability within the black community.

There is widespread concern about the effects of incarceration on HIV/AIDS risk in African Americans. The prison environment is indeed a high-risk setting for the transmission of HIV/AIDS as a result of the prevalence of HIV among inmate populations and the high-risk activities that may occur within the institutions, including unprotected risky sexual contact, drug use and the potential risks from nonsterile tattooing.²⁸ Shockingly, one-fourth of all people living with HIV in the



United States in 1997 were incarcerated at some point during the year.²⁹

In addition to any risks associated with the prison environment, investigators have considered the long-term consequences of incarceration for the lives of released inmates.⁸ In terms of social network and relationship disruption, Hoffman and colleagues found that individuals in networks with higher rates of turnover (more new members entering the network and more members leaving) were more likely than others to engage in HIV risk behaviors.³⁰ The economic security of released inmates is also affected by their criminal history in several ways, including the reluctance of employers to hire individuals with criminal records. Economic instability may lead individuals to engage in "survival sex,"^{31,32} and risky drug use,³³ both serious risk factors for HIV/AIDS. Furthermore, former inmates' access to drug treatment services is generally limited by their lack of financial resources.⁸

By and large, the degree to which African Americans are disproportionately more likely to be incarcerated relative to white individuals contributes to the racial disparities in HIV/AIDS. Current recommendations to further delineate the role of incarceration include large-scale meta-analyses to estimate the proportion of black male infections attributable to transmission to incarceration.

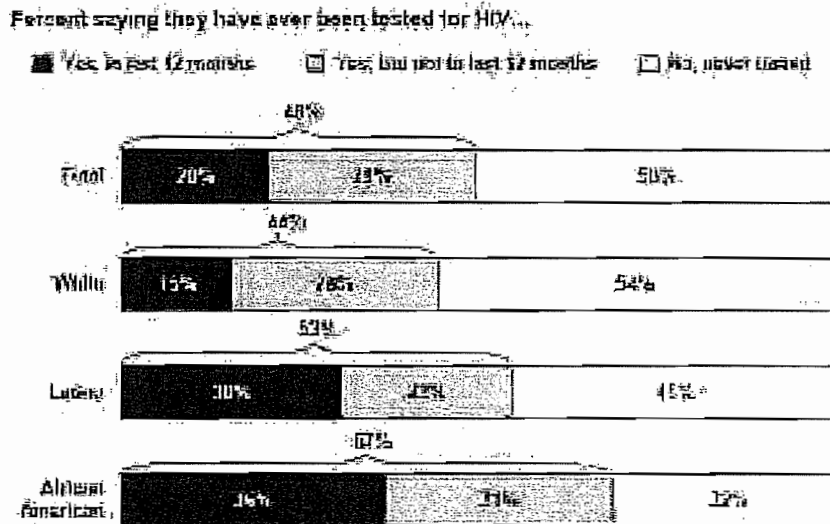
Socioeconomic Status and Access to Healthcare

Finally, studies have found multifactorial associations between higher incidence of HIV/AIDS and lower income.³⁴ Limited access to high-quality healthcare, housing and HIV/AIDS prevention and education

programs both directly and indirectly increase the risk factors for HIV infection. In 1999, nearly one in four African Americans was living in poverty.³⁵ The overrepresentation of HIV within this community has been linked to the consequences of marginalized social status and poverty, including higher risks for homelessness, drug use, incarceration and risky sexual behavior, all of which contribute to infection with and transmission of HIV/AIDS within the community as mentioned in previous sections of this review. In addition, data from the HIV Cost and Services Utilization Study (HCSUS), the only nationally representative study of people with HIV/AIDS receiving regular medical care, showed that access to healthcare is heavily influenced by race and ethnicity: blacks were more likely to report postponing medical care because they lacked transportation, were too sick to go to the physician or had other competing needs.³⁶ More often than not, African Americans and individuals living in poverty do not have adequate access to the health education, prevention plans and treatments available to those who are not impoverished.³⁷

Along these lines, access to care can be improved by access to health insurance (public or private). Expectedly, insurance coverage of those with HIV/AIDS varies by race and ethnicity. According to HCSUS, African Americans with HIV/AIDS were more likely to be publicly insured or uninsured than their white counterparts.³⁸ More than half of African Americans in the study (59%) relied on Medicaid compared to 32% of whites. One fifth of the black participants (22%) were uninsured compared to 17% of whites. Thus, socioeconomic status represents another likely contributing factor to the racial disparities of HIV/AIDS in African-Americans.

Figure 5. Percent of surveyed individuals who report being tested by race/ethnicity



From Kaiser Family Foundation Survey of Americans on HIV/AIDS³⁹

HIV SEROSTATUS AWARENESS

The high level of unrecognized HIV infections among African Americans is a public health concern. Individuals unknowingly infected with HIV cannot benefit from earlier lifesaving therapies, nor can they protect their partners from becoming infected with HIV.⁵ A large 2004 Kaiser Family Foundation survey found that, although African Americans are more likely than whites to say they have been tested for HIV, particularly in the last year, almost one-third of the African Americans surveyed have reported having never been tested for HIV (Figure 5).³⁹ The lack of screening is even more concerning among black MSM. Of black MSM individuals who tested HIV positive in a 2005 National HIV Behavioral Surveillance study, more than two-thirds were previously unaware of their HIV status.¹⁹ Timely diagnosis is also critical. CDC surveillance data shows that, of all HIV infections diagnosed in African Americans in 2004, 40% were diagnosed with AIDS <12 months later.⁶

COMMUNITY BELIEFS AND PERCEPTIONS

HIV/AIDS ranks first as the most urgent health problem facing the nation named by African Americans.³⁹ Compared to white individuals, African Americans are more likely to be personally concerned about the disease, in terms of themselves and their children, and are also more likely to know someone who has HIV/AIDS or has died from AIDS. African Americans are also more likely to say there is a significant amount of discrimination against people with HIV/AIDS in the United States today. Despite these statistics, the HIV/AIDS epidemic has created: 1) significant stigma within the African-American community and also 2) outward mistrust of the biomedical community, both hampering the population's ability to fully engage in HIV/AIDS prevention.

In a community where religious leaders are critically important, black churches play a major role in shaping cultural norms and attitudes in relation to beliefs about sexuality. Openly discussing topics such as sexuality, homosexuality, sex outside marriage, drug use and other private issues has always been taboo. Raising awareness about HIV/AIDS thus becomes a huge challenge and, in some cases, can lead to denial about HIV, decreasing testing among the population. Early in the course of epidemic, community-based organizations, particularly those serving drug users, were likely to acknowledge the AIDS epidemic, whereas religious leaders maintained a distance.⁴⁰ This unequal movement with the community has been postulated to be a source of great concern given the importance placed on religious institutions. National surveys report that the majority of African Americans are members of a church, and these sectors have great influence on community attitudes, even for nonmembers. For a variety of reasons beyond the scope of this review, teachings have led to prejudice

within many black communities towards homosexuality. The end result, in many instances, is justified discrimination and marginalization by heterosexuals. This decreases the amount of open discussion and education about HIV/AIDS and, as a result, there is a lack of widespread community support.

Mistrust of the biomedical community by African Americans has been documented over centuries, rooted in historical racial discrimination in the nation's health-care system, including the well-known Tuskegee Syphilis study travesty.⁴¹ Such mistrust has also been linked to conspiracy beliefs about HIV. In 1999, black research assistants conducted a door-to-door survey of >500 black adults in San Bernadino, CA.⁴² Nearly 27% of those surveyed endorsed the view that HIV is an artificially created virus designed by the federal government to exterminate the black population. Furthermore, those who agreed that AIDS is a conspiracy against them tended to be culturally traditional, college-educated men who had experienced considerable racial discrimination. A second large survey of African Americans reported that, among men, stronger conspiracy beliefs were significantly associated with more negative condom attitudes and inconsistent condom use.⁴³

Given the highly imbalanced prevalence rates of HIV/AIDS within the African-American community, identifying any barriers to prevention efforts is essential for the design and implementation of effective interventions in black communities. Lack of open HIV/AIDS discussion and pervasive conspiracy beliefs must be addressed in the context of prevention strategies.

MASKING HOMOSEXUAL BEHAVIOR

Homophobia and stigma can cause some black MSM males to identify themselves as heterosexual or to not disclose their sexual orientation. In a 1998 psychology study from the University of Illinois, qualitative data from individual interviews with 18–29-year-old African-American MSM males were used to examine the relationship of negative attitudes toward homosexuality, self-esteem and risk for HIV.⁴⁴ Respondents perceived members of their communities as holding negative attitudes toward homosexuality, and many thought the African-American community was less accepting of homosexuality than the white community, leading to significant psychological stresses. In addition, respondents articulated several mechanisms by which low self-esteem and distress might be associated with sexual behaviors that put one at risk for HIV.

Termed by the media first in 2001 as the “down-low” phenomenon, it was widely debated that being openly homosexual may lead to considerable stigma in communities, such as the African-American community, where traditional family behavior is greatly valued. This leads to engagement in male-to-male sexual contact in secret while publicly maintaining heterosexual relationships

with women. Some critics later argued that this negative mainstream attention wrongfully linked the down-low phenomenon to solely African-American men, clouding the real contributors to the growing HIV/AIDS epidemic among this population. For example, one author argued that the down-low debate demonized black men, stigmatized black women and encouraged an unhealthy "battle of the sexes," distracting attention from the issue of HIV prevention, personal responsibility and condom use.⁴⁵ There is also evidence that black MSM males who do not disclose their homosexual or bisexual activities engage in a lower prevalence of HIV risks than black MSM males who do disclose. Furthermore, black men who are currently bisexually active account for a very small proportion of the overall population of black men (estimates of approximately 2%).⁴⁶

Still, in a CDC-sponsored study of 8,780 MSM with HIV infection or AIDS, 24% of non-Hispanic black MSM identified themselves as heterosexual, compared with 6% of non-Hispanic white MSM.⁴⁷ It was then suggested that minority community leaders should promote dialogue about issues of sexual orientation to overcome social barriers to HIV prevention for African-American MSM, especially among young men.

STRATEGIES FOR PREVENTION AND ACTION

Disproportionately high rates of infection among blacks highlight the need to expand HIV-prevention interventions known to be effective and implement new, improved and culturally appropriate HIV/AIDS strategies. Since the early beginnings of the epidemic, the CDC has funded programs that: 1) help individuals learn their HIV status, 2) help high-risk HIV-negative persons avoid infection, 3) support prevention services for persons living with HIV infection, and 4) help track the course of the epidemic and identify new and enhanced interventions.⁴⁸ However, given the disparities for blacks more than any other race or ethnicity, the CDC recently committed to reassessing, strengthening and expanding its efforts to address the epidemic among African Americans.

Action strategies to accomplish this culturally specific outreach include expanding access to resources by building linkages with other organizations that provide related social and health services to African Americans (e.g., employment, housing and mental health services) to make HIV prevention information and services more widely available. Attempts are also being made to promote early HIV testing as a normal part of healthcare screenings for all African Americans to increase opportunity for HIV diagnosis and early treatment. Furthermore, African-American researchers, including behavioral scientists, anthropologists, psychologists and sociologists, are being recruited to develop HIV prevention interventions tailored to the needs of the black community. Per-

haps even more challenging will be the objective task to mobilize broader community action, fostering forums such that African Americans can talk about HIV/AIDS in places where they live, work and worship. One strategy to create such vast change involves merging HIV/AIDS prevention with efforts against racism, homophobia, joblessness, sexual violence, homelessness, substance use, mental illness and poverty.

There are additional initiatives recently put in place that are specific to high-risk subgroups of African Americans, including programs for incarcerated men upon release and prevention strategies for homosexual and bisexual black men. In addition to national organizations and programs, such as National Black HIV/AIDS Awareness Day, there are several opportunities for members of the biomedical and African-American communities to collaborate and support these efforts, decreasing the deep-rooted racial health disparities in HIV/AIDS that currently exist.

CONCLUSIONS

The HIV/AIDS epidemic in African Americans is a deadly reminder of the health disparities that exist among this population. Several sets of statistics prove that there are many areas within this disease process in which African Americans are continuing to lose ground. Blacks are overrepresented in subgroups of individual risk factors for HIV transmission, including those related to sexual behavior, substance use, sexually transmitted diseases and incarceration. The disproportionate rates of lower socioeconomic status and poverty in African Americans indirectly leads to a vicious cycle enhancing risk factors for HIV infection and also contributes to the overt discrepancies in access to appropriate healthcare services for prevention and treatment resources.

Furthermore, the paucity of widely available and promoted HIV testing, confounded by cultural hindrances to serostatus awareness, has fostered a delay in diagnosis and missed opportunities for prevented transmission and early treatment of HIV. The concealment of homosexual behavior, which spurs a host of psychological and health consequences in its own right, has garnished nationwide media attention and debate with little resolution or progressive action. Similarly, community belief systems in regards to perceived immoral behaviors and prevalent conspiracy theories have had deleterious impacts on African-American involvement in prevention and education programs, also fueling the unyielding health disparities.

So what is the role of the minority providers and those practitioners that serve the African-American communities? This review provided only a snapshot of the multifactorial nature of the HIV/AIDS epidemic. However, the objective was to present a foundation of knowledge and awareness of the issues that our community faces daily, both in practice and in life. The CDC has outlined

solid action strategies to begin chipping away at the barriers to HIV prevention and treatment in African Americans, and the members of the biomedical community have the potential to be a major driving force in their execution and success. Scientists have the promise to spearhead research advances in HIV vaccinations and continued understanding of genetic differences that may lead to variable responses to antiretroviral therapies. Public health researchers can pioneer the epidemiological studies to investigate the advantages and pitfalls of current HIV prevention strategies for African Americans, with data then being used to steer public policies in a positive direction. Psychologists and sociologists stand to reach the males and females struggling with consequences of having to re-establish their social networks after release from incarceration or following condemnation for their sexuality. Regardless of the mode of contribution, the call for action has been presented. The HIV/AIDS crisis in African Americans as it stands today represents a state of emergency.

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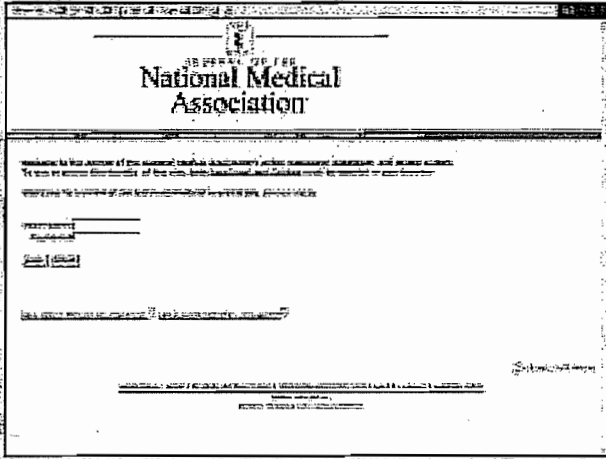


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African-American Sexuality and HIV/AIDS: Recommendations for Future Research

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Financial support: This article was funded in part by grants from the California HIV/AIDS Research Program-funded Institute for Community Health Research (CH05-DREW-616, CH05-LAC-617, CH05-RAND-618); National Institutes for Mental Health-funded UCLA Center for Culture, Trauma and Mental Health Disparities (1P50MH073453) and the UCLA AIDS Institute (A128697).

HIV/AIDS continues to create a significant health crisis in African-American communities and health disparities within the United States. Understanding African-American sexuality within a culturally congruent and ethnocentric approach is critical to decreasing the HIV infection and transmission rates for African-Americans. This brief discusses two major factors: 1) confusion about race-based stereotypes; and 2) historical health disparities and mistrust, which have influenced our understanding of African-American sexuality despite that fact that very little research has been conducted in this area. This paper discusses the limitations of what is known and makes recommendations for research surrounding sexuality and HIV/AIDS. Research trainings for new and established investigators and collaborations among health, community, religious, political organizations, and historically black colleges and universities are needed to disseminate relevant HIV prevention messages. Conducting research to better understand African-American sexuality will facilitate the development of behavioral interventions that address health, HIV and mental health risk reduction within the context of African-American life.

Key words: African Americans ■ sexuality ■ HIV/AIDS

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IMPORTANCE FOR AFRICAN AMERICANS

Among 21st-century healthcare crises in the United States, the HIV/AIDS epidemic will long be remembered as one where appropriate prevention and treatment was mired in the centuries-old politics of race, class, health disparities and medical mistrust of the healthcare system. To some, disproportionately high HIV rates would form the impetus for a national effort to garner resources and expertise to prevent new cases, reduce the likelihood of HIV transmission among those most at risk, and ensure that those living with the virus would receive adequate clinical care. While some progress has been made, HIV/AIDS disparities for African Americans in general and for specific subgroups, such as women and men who have sex with men and women, continue to increase.¹ According to the Office on AIDS at the National Institutes of Mental Health, until a vaccine is found, HIV transmission risks are best reduced by decreasing risky sex and drug-related practices.²

Efforts to understand sexual risk-taking and the most common modes of HIV transmission have been studied within a public health context. There have been several HIV-prevention interventions shown to be effective at increasing HIV knowledge and condom use while also decreasing multiple partners and risky injection drug use, particularly needle-sharing among some populations.³ However, little of what we know explains why African Americans are at such a high risk for HIV/AIDS. For example, research has not yet identified the cumulative effects of historical disparities that increase HIV-related risks, and studies that report racial differences often do not examine their etiology. Further, when African Americans are included in research, their national, ethnic or immigration diversity is rarely assessed. They are often compared with whites or Latinos in studies that fail to control for critical demographic differences.⁴ For example, historical disparities in healthcare access and utilization, as well as generational poverty and minimal-to-no health insurance are rarely examined in ethnic populations at risk for or living with HIV/AIDS. These factors place sexual behaviors within a different con-

text that extends beyond risk and is better understood as a result of no information, few facts and silence about these important issues.

Further, it is difficult to assess which behaviors need to change for individuals, couples, families or communities because HIV research does not provide the specific contexts of risks. For example, beyond recommending HIV and sexually transmitted infection (STI) counseling and testing, what questions should health professionals ask individuals or couples who seek premarital advice? What questions should be asked of couples who are ready to have a family? What are the questions that we should ask men who have sex with men or women who have sex with women to assess possible HIV-related risks? When and how should children and adolescents be asked about their in-depth sexual histories? These questions remain unanswered because studies have commonly overlooked the historical, cultural, developmental, religious, relational and institutional factors. Additionally, within African-American communities it has been difficult to explore sex-related issues in general because of embarrassment, conservative values, and a lack of skills in discussing human sexuality.⁵ Parents are often reluctant to discuss facts about sex with their children due to the fear that knowledge will heighten interest and precipitate early sexual activity. The silence regarding sex may further contribute to assumptions that reinforce race-based stereotypes. Consequently, research including African Americans is limited by two major factors that distinguish these sexual risks and have yet to be adequately addressed in HIV/AIDS research. Descriptions of these factors follow.

Confusion about Race-Based Stereotypes and Research

First, there are many well-entrenched stereotypes about African-American sexuality based on misinformation, poor science or assumptions that stem from myths and slave folklore.⁵ One of the most salient stereotypes is that African-American men and women are hypersexual. Empirical evidence that attempts to explain why African Americans are at heightened risks for HIV/AIDS commonly compares African Americans to whites without considering cultural and economic differences, relationship-status imbalances and fears of genocide.^{6,7} The reasons for differences found between groups are often not addressed, and stereotypes are erroneously perpetuated by federally funded epidemiological data and national surveys that report critical correlates of HIV/AIDS by racial groups alone.⁸ The common assumption from these statistics is that most African Americans engage in risky behaviors, especially if they have economic and health resource limitations. Unfortunately, most African Americans are inconsistent consumers of the healthcare system⁹ and often do not utilize health maintenance and disease-prevention services.¹⁰ Subsequently, they do not

receive information regarding health-related behavioral risks, resulting in the highest rates of morbidity and mortality compared to all other racial/ethnic groups.¹⁰ When these health-related factors are not provided to explain the context of risky behaviors, stereotypes of hypersexuality regain prominence.³

The best strategy for addressing stereotypes is to conduct research that accurately describes African American sexuality across the lifespan and factors that affect it. This research needs to be conducted by investigators who are competent to assess the complex factors that affect sexuality and must be disseminated to health providers, ancillary professionals, and community and religious groups. The focus is to normalize the accurate information and dispel myths and stereotypes.

Historical Health Disparities and Mistrust

Disparities in health insurance exist for African Americans as compared with whites. In 2006, 6 million African-American adults were uninsured.⁹ As a group, African Americans encounter numerous barriers to obtaining health insurance, including rates of healthcare coverage, cost and access barriers even when they have insurance.⁹ These issues all contribute to fragmentation in healthcare for African Americans, resulting in delays in seeking services, establishing regular contact with providers, obtaining and keeping follow-up appointments, and obtaining referrals. These factors result in a basic mistrust of the medical system.¹¹ Medical mistrust is based on a lack of healthcare access and equitable treatment by professionals. The assumption is that an individual and the services that he/she provides will be substandard because of racial or economic discrimination. These attitudes and beliefs about the medical system have historical roots in slavery, where African Americans were used in medical and surgical experiments and drug trials.¹²⁻¹⁴ Medical mistrust and limited healthcare access are joined by historical abuses of African Americans in clinical trials and other research that has focused on controlling sexually transmitted infections and reproduction. Specifically, clinical trials for condom acceptability and contraceptive methods, treatment for STIs and sterilization procedures have significantly increased mistrust of healthcare professionals and fears of genocide.¹⁴⁻¹⁷ Health advocacy can be provided in community-based organizations, churches and schools. These skills are needed because trust and transparency are essential for behavior change.

Most recently, an example of an HIV intervention strategy represents a contemporary potential for medical mistrust. Male circumcision in sub-Saharan Africa has been promoted to reduce HIV risks for partners¹⁸ and is also being considered in the United States for at-risk populations.^{19,20} Circumcision is not currently being discussed within the context of history. Adult male circum-

cision may be offered widely to African-American men as a HIV-prevention strategy. However, fears of circumcision, including castration and sexual dysfunction, can contribute to high drop-out rates in research among African Americans, which investigators may not understand. Reasons for concern about circumcision among African-American men should include an acknowledgment of the wealth of literature that compares genitalia size of African-descended versus white men.⁵ African-American men may view this procedure as an attempt to reduce penis size and to render their genitalia as less attractive. Many African tribes historically included male circumcision as a rite of passage into manhood, but the practice was often banned during colonization.⁵ It is curious that similar practices are now condoned without the cultural context in which they were once practiced. Male circumcision needs to be introduced within a cultural framework. Most critically, it needs to be acknowledged as a practice that had relevance to culture and is analogous to circumcision in other cultures.^{21,22} Additionally, cultural values around the esthetics of the male genitalia must be assessed in order to identify other potential barriers to circumcision adherence before this procedure is recommended by health professionals. It is also not clear what benefit this procedure will have on female partners of circumcised men. Without adequate follow-up with couples-based counseling, even if adapted, the procedure may affect relationships in other ways.

Another related factor in understanding African-American sexuality is that study populations in HIV research are often not representative of the diversity of beliefs and practices held by African Americans regarding health and healing. Additionally, HIV-prevention research does not include an assessment of the medical mistrust that may influence high-risk behaviors and treatment adherence in ways that may mediate HIV transmission rates. For example, medical mistrust within subpopulations of African Americans can vary based on age, gender, sexual orientation, insurance status, and healthcare availability and access. Only through reviewing what has been explored and identifying the gaps in what we know will we be better able to direct future research.

WHAT IS KNOWN

The following provides a nonexhaustive review of findings in HIV/AIDS research:

1. While African Americans comprise 13% of the population, they account for 49% of HIV/AIDS cases.¹ Among African-American men living with HIV/AIDS, major transmission categories included male-to-male sexual contact (48%), injection drug use (23%) and high-risk sexual activity (22%). Among African-American women living with HIV/AIDS, major transmission categories included high-risk sexual contact (74%) and injection drug use (24%).¹
2. Patterns for high-risk sexual and drug-related behaviors among African Americans are associated with poverty, being homeless and unemployed, having a history of sexual abuse or mental illness such as depression, and having a history of substance abuse/dependence and incarceration.^{18,23,24}
3. Many African-American men who have sex with men also have sex with women. Recent reports indicate that 14% of African-American men who have sex with men reported sex with women in the prior 12 months, compared with 8% of Hispanic men who have sex with men and 4.2% of white men who have sex with men.²⁵
4. Among young men who have sex with men ages 15–29, 18% of African-American men who have sex with men were classified as “nondisclosers” regarding their sexual activity with other men, compared with 13% of Hispanic men who have sex with men and 8% of white men who have sex with men.²⁶ While these studies involved recruitment in settings frequented by men who have sex with men, studies involving recruitment from other settings found much higher levels of bisexual behavior and nongay identification (20–60%) among African American men who have sex with men.^{27–30}
5. Partner unavailability is a significant predictor of HIV-risk behavior, especially for African-American women.⁵ Relatively high levels of overlapping sexual partnerships (sexual concurrency) are observed within African-American communities.³¹ They are known to increase the transmission of bacterial STIs¹⁸ and may also increase rates of HIV infection.^{32–34}
6. Among African-American women infected with HIV/AIDS, 24% were infected by injection drug use, and 74% had high-risk sexual partners. These figures included 28% with an HIV-infected partner, 12% with injection drug-using partners and 2% with bisexually active male partners.¹
7. The HIV/AIDS health disparity also exists among African-American teens. In 2003, African-American teens ages 13–19 years represented 66% of the AIDS cases in this age category even though they made up only 15% of the teenage population.³⁵ Importantly, African-American teens comprised the single largest group of young people affected by HIV.³⁵
8. The frequency of self-reported sexual abuse before age 18 for African-American women is one in three for HIV-negative women³⁶ and one in two for HIV-positive women.³⁷ The estimated frequency of sexual abuse before age 18 among men varies between 4–76%.^{38–46}

9. In general, high rates of psychiatric disorders, including depression, posttraumatic stress disorder (PTSD) and acute stress disorders (ASD), exist among HIV-positive individuals.⁴⁷

WHAT IS NOT KNOWN

While researchers have been able to document the above findings, the historical, generational, structural and socioeconomic context of African-American sexuality still needs to be examined. Little information exists from a national, regional, age and relationship-related perspective of what factors influence sexual practices. The following are significant gaps in the literature:

1. While researchers have attempted to identify the behaviors that place African-American men and women at risk for HIV/AIDS (i.e., injection drug use, male-to-male sexual contact, high-risk sexual behaviors, etc.), little information is provided to identify the characteristics that describe this group. (i.e., "Who are" the 49% of HIV cases who are African American?) Important questions to answer include: Are poverty, unemployment, health insurance and homelessness correlates of race? Do these variables contribute more to HIV vulnerability than ethnicity/race alone? It is important to understand when behavior is the most risky and the circumstances that heighten those risks. For example, if a male engages in injection drug use for 10 years, has unprotected sex and does not use sterile needles, is he at greater risk than a homeless person or a person who has no healthcare for the same length of time? These are important questions for which we currently have no answers.
2. Patterns for high-risk sexual and drug-related behaviors among African Americans have been associated with poverty, being homeless, incarcerated and unemployed, having a history of sexual abuse, or mental illness.^{3,18,23} However, we do not know which of these factors contributes most to risks of becoming HIV infected or how the cumulative effects of these experiences affect mental health.
3. Recently, research targeting African-American men who have sex with men and women has been recognized as a gap in the literature. Research tends to focus on race/ethnicity, gender and sexual behavior. However, we know little about African-American male sexuality or sexual identity development. We need to examine how sexual abuse, substance use and incarceration histories influence sexual identity development and activity among African-American adolescents and adults, particularly men, as well as the factors that inhibit sexual identity self-acceptance.
4. Partner unavailability has been examined with regard to sexual risk-taking.⁵ However, a more global understanding of how limited partner choice, possibly because of incarceration or early death from multiple health issues, affects the African-American family and the community overall. The specific reasons for partner unavailability need to be identified and examined, as well as the consequences on family formation, sexual decision-making and psychological health (i.e., isolation, depression, etc.). For example, marriage could be a risk factor for African-American women if they incorrectly assume their relationship is monogamous and if they do not negotiate for couples-based HIV testing. They may also not know their own HIV status and how their health is affected.⁴⁷ Most of the early HIV-prevention messages did not target married couples and gave the impression that they were not at risk, while not addressing the actual sexual behaviors that could have occurred before or during marriage. Given that large proportions of African-American women are infected by high-risk sexual partners,^{1,48} more research is needed to understand the sociocultural context in which high-risk sex occurs. Understanding the role of limited-partner status in contributing to why African-American women value relationships over self-protection is necessary.
5. While there are data on child sexual abuse among African-American women,^{36,37} there are few, if any, national or regional community studies to better understand the circumstances that increase risk factors for HIV. Most of these incidents among African-American men and women are not reported.⁴⁹ Importantly, there needs to be consensus on the definition of child sexual abuse. Generally, incidents of child sexual abuse include having unwanted or coerced sexual body contact prior to the age of 18.⁴⁹ The severity of these incidents needs to be incorporated in studies of HIV risks, and the evaluation of the effects of nondisclosure is needed. Assumptions are commonly made that a promiscuous child is "sexualized" rather than abused. Importantly, we need to examine the labels attached to African-American men with multiple sexual partners. While this pattern may reflect compulsive sexual behavior and hypersexuality, it is rare but necessary that community stakeholders consider that this behavior is typical of survivors of early and repeated sexual abuse.
6. We need to understand developmental vulnerabilities in African-American adolescents, especially at ages 13–15 years. Biological changes in puberty, problems with obesity and media influence can exacerbate experiences of isolation and racism that are commonly experienced by African-American youth.

7. More research assessing child sexual abuse and its association to HIV infection is greatly needed for men overall and especially for African-American men.
8. While acute stress is reportedly higher among African Americans than whites⁴⁷, research has yet to examine it within group differences with regard to psychiatric diagnoses among African-American populations, especially those at risk for or living with HIV/AIDS.

RESEARCH RECOMMENDATIONS

Following are steps to understand and prepare for a more comprehensive approach to studying African-American sexuality.

1. Research that describes African-American sexuality is needed. It is difficult to understand sexual risk-taking without first examining African-American sexuality. In doing so, comparisons within self-identified groups are more critical than across ethnic groups. The pathology-based approach currently being used limits the identification of barriers to disease transmission. Research needs to be prioritized to pursue variables most pertinent to African-American sexual health if behavior-change strategies are to be most effective.
2. Understand the sociocultural context of interpersonal relationships and its impact on sexual health. Sexual-health interventions must be framed within a model where individuals and their complex interpersonal relationships are assessed within African-American communities and the community at large.⁵⁰ These interventions should target social networks, individuals, couples, and families, addressing sociocultural variables most relevant to African Americans. The historical lack of healthcare, limited healthcare access, concerns about social isolation and limited partner availability need to be assessed for their impact on risks for HIV/AIDS. Interventions need to address social networks for hard-to-reach populations, including African-American men who have sex with men and those who have sex with men and women. Multidisciplinary groups of African-American experts need to be at the forefront of developing a research agenda that can help to identify what we do not know about African-American sexuality. The cultural, gender, religious and historical variables that can facilitate self-protection need to be included in federally funded research. Further, while public health messages are conveyed to adolescents regarding disease prevention, the endorsement of sexual activity can be implied when there is no indication of what African-American communities expect

of their youth. Collaborations among churches, community-based organizations, historically black colleges and universities, and funding agencies (such as the Centers for Disease Control and Prevention and National Institutes of Health) need to be fostered in order to support research priorities of African-American investigators and policy experts.

3. Understand the impact of diversity within

African-American communities. While race/ethnicity may be a common factor in identifying populations at risk, there are many variables that contribute to diversity among African Americans. Understanding how age, gender and other socio-demographic variables, as well as HIV serostatus, influence sexuality and sexual decision-making is important. For example, research on methods to reduce the stigma related to the acceptance of sexual diversity within African-American families and communities should receive funding priority. In an effort to increase HIV prevention, a more in-depth understanding of sexuality is necessary to avoid the exclusion of African-American men who have sex with men, men who have sex with men and women, as well as homosexual and bisexual women. Another example of diversity is normalizing the quality of life for persons living with HIV/AIDS. It is important to avoid stigmatizing them and thereby missing the opportunity to truly achieve integration within African-American communities. As an HIV infected individual, disclosing status to your partners and using condoms are necessary for protecting individuals, partners, families and the African-American community.

4. Address cultural elements for African-American interventions. Incorporating ethnocentric research that uses innovative, culturally congruent methods to increase knowledge about HIV transmission, and HIV counseling and testing is needed. Additionally, HIV interventions need to include other sex-related issues, such as prevention and treatment of STIs and contraceptive use, in a manner that is culturally acceptable to African Americans. Separate messages about each of these issues are less than meaningful for African-American populations, who ultimately need to perceive self-protection as a unifying theme.
5. Educational programs about sexuality within a cultural and religious context should be geared toward different age groups. Also, HIV prevention and interventions should assess a basic core of mental health (such as depression, PTSD and anxiety) that are common among African-American populations.⁴⁶ Above and beyond HIV status, these issues may contribute to sexual risk-

taking and should not be overlooked in funded research. We need to be creative in developing culturally appropriate research and care for psychological distress and their effects on health. There is no better time to advocate for a holistic approach to physical, sexual and mental health.

6. Provide sexual health and HIV training to healthcare providers. Given the diverse barriers that African Americans face in achieving good health, it is incumbent on physicians to develop effective communication and clinical exam skills to discuss, diagnose and treat HIV and other sexually transmitted diseases among African Americans.

CONCLUSION

While African Americans are African descended, there is much diversity within this group. This diversity needs to be identified so that all groups, which vary by immigration status, culture, ethnicity or acculturation to the values and norms in the United States, can be understood in relation to their HIV risks. In order to address the research recommendations made above, training in these areas for new and established investigators is critical. Collaborations with health organizations such as the National Medical Association and historically black colleges and universities will ensure that investigators have the skills to conduct culturally congruent research and develop treatment options that address the risks and resilience of African Americans and other African-descended groups. These efforts will help to reclaim healthier sexuality or discover and endorse it for the first time.

ACKNOWLEDGEMENTS

The authors would like to thank Dr. Glenn Wagner for suggestions on earlier drafts and Dr. Sangeeta Fernandes and Faith Muhlenburg for their support.

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Research Needed to More Effectively Combat HIV among African-American Men Who Have Sex with Men

Eric G. Bing, MD, PhD; Trista Bingham, MPH, MS; and Gregorio A. Millett, MPH

The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Los Angeles Department of Public Health or the Centers for Disease Control and Prevention.

Financial support: This article was supported in part by grants from the California HIV/AIDS Research Program-funded Institute for Community Health Research (CH05-DREW-616, CH05-LAC-617, CH05-RAND-618) and the National Institute for Mental Health-funded UCLA/Drew/RAND Center for HIV Identification, Prevention and Treatment Services (5P30MH058107).

It is estimated that nearly half of all African-American men who have sex with men (AAMSM) living in major U.S. cities are already infected with HIV. Without a substantial and committed investment in research in HIV prevention among AAMSM and subsequent evidence-based policies and community programs, it is unlikely that we will ever be able to curtail the HIV epidemic among African Americans in general, regardless of gender, age or sexual orientation. In this paper, we briefly review what is known and what research questions remain in order to curtail the epidemic among AAMSM. Finally, we provide recommendations for future research that include the: 1) development of a national cohort of young AAMSM to prospectively study biological, behavioral, social and contextual factors that place AAMSM at risk for infection with HIV and other STDs; 2) adapting existing interventions in HIV prevention to the unique characteristics of AAMSM and evaluating their effectiveness; 3) evaluating factors such as intracommunity and familial discrimination against AAMSM that may lead to lack of disclosure; and 4) enhancing our understanding of how cultural and social factors can be used in a positive and self-affirming way to strengthen HIV prevention and care for AAMSM.

Key words: African Americans ■ sexually transmitted diseases ■ men's health ■ HIV/AIDS

© 2008. From Drew CARES & Institute for Community Health Research, Charles Drew University of Medicine and Science (Bing), Los Angeles, CA; Institute for Community Health Research, Los Angeles County Department of Public Health, HIV Epidemiology Program (Bingham), Los Angeles, CA; and Centers for Disease Control and Prevention (Millett), Atlanta, GA. Send correspondence and reprint requests for *J Natl Med Assoc*. 2008;100:52-56 to: Dr. Eric G. Bing, Drew CARES and Institute for Community Health Research, Charles Drew University of Medicine and Science, 1748 E. 118th St., Los Angeles, CA 90059; phone: (323) 357-3447; fax: (323) 357-3477; e-mail: eric.g.bing@gmail.com

IMPORTANCE

It is estimated that nearly half of all African-American men who have sex with men (AAMSM) living in major U.S. cities are already infected with HIV.¹ Indeed, their rates of infection equal or exceed those seen in the most highly impacted sub-Saharan African regions.²⁻⁵ Without a substantial and committed investment in research in HIV prevention among AAMSM and subsequent evidence-based policies and community programs, it is unlikely that we will ever be able to curtail the HIV epidemic among African Americans in general, regardless of gender, age or sexual orientation. In this paper, we identify the urgent research priorities needed to more effectively combat HIV among AAMSM.

WHAT IS KNOWN

At the beginning of the AIDS epidemic in the United States, the gay white community effectively mobilized and called attention to the epidemic, leading to policy shifts to protect the rights of those infected, substantial and sustained increases in resources to expand testing, prevention, care, treatment and essential basic, clinical, sociobehavioral and public health research.⁶ Despite the fact that AAMSM have the highest rates of HIV of any American subpopulation, there has been relatively little community or political mobilization to combat the epidemic among AAMSM. To date, many factors have detracted from such a focused response, including the lack of a politically active and organized AAMSM community in most locales, the economic and health disparities that many African Americans face,^{7,9} and the marginalization and stigma^{10,11} that AAMSM experience within both the gay and African-American communities. In addition, previous HIV prevention research that has largely focused on African-American heterosexuals and non-African-American gay males cannot adequately account for the special and unique characteristics of AAMSM.^{12,13}

After >25 years of developing interventions to reduce HIV in U.S. populations, there exist only 11 HIV behavioral interventions that suggest effectiveness in reducing HIV among African Americans.¹⁴ Notably, none of these interventions have been empirically tested among

AAMSM. Given the significant impact of HIV/AIDS on AAMSM, it would be reasonable to expect significant resources be focused on developing effective HIV-prevention interventions for AAMSM. However, in a 2002 review of 137 HIV prevention interventions that included ethnic minorities in the United States in 1985–2000,¹⁵ the authors found only one rigorous, randomized controlled trial with the specific objective of reducing HIV infections in AAMSM.¹⁶ In a more recent systematic review of HIV behavioral interventions published between 2000 and 2004,¹⁷ the authors did not identify even one behavioral intervention showing effectiveness in reducing HIV specifically among AAMSM.

HIV Risk among African-American Males

African-American males represent 71% of the cumulative United States AIDS cases among African-American adults and adolescents,¹⁸ and for more than half, the mode of transmission is unprotected sexual contact with another man.¹⁹ Indeed, among new cases of HIV reported by 33 states with name-based HIV surveillance in 2001–2005, 56% of African-American male cases had reported sex with other men (51.7% male-to-male sex and 4.6% MSM/injection drug users).²⁰ In a study of young MSM, Harawa et al.²¹ found that young AAMSM had nine times the odds of HIV infection compared with young white MSM even though they did not engage in riskier sexual or drug-use activity than white MSM. Thus, in subpopulations with high HIV prevalence, such as AAMSM, “high-risk” behaviors may be more likely to lead to new infections due to the higher probability of being exposed to an HIV-positive partner.

Prevalence of Homosexual and Bisexual Behaviors

Previous research of men residing in large urban areas indicates that while the prevalence of homosexual behavior among African-American males may be lower (3.1%) than among white males (9.1%), a higher proportion of AAMSM report sexual behaviors with females compared with their white counterparts.²² A higher prevalence of bisexual behavior reported by AAMSM has led to speculation that African-American women have been disproportionately exposed to HIV through bisexual male partners compared with women of other race/ethnicities. Sufficient evidence to support this hypothesis is not currently available.²³

Prevalence of Unrecognized HIV Infection and Sexually Transmitted Diseases

Despite the fact that young AAMSM are much more likely to be infected with HIV than their white and Latino counterparts,^{4,24} they are much less likely to know that they are infected.²⁵ Data collected on adult MSM in

five urban centers for the Centers for Disease Control’s National HIV Behavioral Surveillance system in 2004 indicated an HIV prevalence of 46% among AAMSM participants, compared with 21% of white MSM and 17% of Latino MSM.¹ Fully two-thirds of the AAMSM participants (67%) had previously unrecognized HIV infection, compared with 18% among white MSM and 48% among Latino MSM. The fact that AAMSM are much more likely than others to be infected with HIV—and to not know that they are infected—is likely a major contributor to the continued spread of HIV within this subpopulation.^{26,27}

In a qualitative review of 12 hypotheses to explain the higher risk of HIV infection in AAMSM compared to other MSM, Millett et al.²⁸ found scientific evidence to support only two existing hypotheses: 1) AAMSM are less likely to know their HIV status and thus may unknowingly transmit to their partners and 2) AAMSM are more likely to contract sexually transmitted diseases (STDs) that facilitate HIV transmission. In fact, previous research has shown that AAMSM have a higher prevalence of both past and current STDs compared to other MSM.^{29–32} In a subsequent quantitative meta-analysis of 53 studies involving both African-American and white MSM, Millett et al.³³ further investigated behavioral factors that may account for the higher HIV risk among AAMSM. The meta-analytic results showed AAMSM to have a higher prevalence of lifetime or current STD, greater rates of unrecognized infection, and among HIV-positive men, lower rates of antiretroviral therapy use among AAMSM compared with white MSM. Again, the authors reported no significant differences in HIV risk behaviors between these groups except that AAMSM reported fewer sex partners, were less likely to use any drugs or use drugs associated with HIV infection, and were less likely to identify as gay or to be open about their same-sex behaviors.

Other factors that have been cited by researchers as possibly contributing to higher rates of HIV among AAMSM include ethnic differences in partner-selection patterns among MSM, less social support and a high prevalence of incarceration. Bingham et al.³⁴ observed that the high risk for HIV infection among AAMSM as compared with white MSM may be partially explained by ethnic differences in sexual networks. In a study of risk behaviors of 23–29-year-old MSM, they found that the higher risk of HIV infection among AAMSM compared with white MSM was related to AAMSM having older and more African-American male partners than white MSM.

Due to a variety of factors, including social expectations and constraints, religious prohibitions, societal discrimination and self-hatred due to same-sex attractions, many African-American men with same-sex partners or attractions do not disclose information about their same-sex relationships to family and friends. Previous research indicates that concealing one’s sexual iden-

tity may actually limit opportunities to receive important social support, which in turn may result in riskier HIV sexual practices.^{12,35-38} Because of an actual or perceived lack of social support and acceptance upon disclosure, AAMSM in particular may be less likely than white MSM to be open about their homosexual behavior.³⁹⁻⁴²

Beyond the documented general reticence of AAMSM to disclose their sexuality to others, recent attention has focused on the number of AAMSM who are "on the down low" and their impact on African-American women's high HIV/AIDS rates. Men on the down low, defined as bisexually active, nongay-identified men who are not open about their bisexual behavior, are the subject of a recent literature review by Millett et al.²³ Contrary to expectation, the authors' findings suggest that African-American men on the down low may engage in fewer risk behaviors with men and are less likely to be HIV positive than black men who are more open about their sexuality. Moreover, the authors found that HIV-positive gay- or bisexually-identified AAMSM who are HIV positive are more likely to report sex with women than HIV-positive heterosexually-identified AAMSM.⁴³ Sexual behavior among AAMSM may be more fluid than among other American MSMs, giving them options to choose male as well as female partners, regardless of whether they self-identify as gay, bisexual or heterosexual.⁴⁴ Such fluidity, however, may complicate the ability of these men to get social support for such behavior from heterosexuals or other MSM.⁴⁵ It may also complicate the ability to reach AAMSM through prevention messages that principally target heterosexuals or MSM.

Finally, while many have suggested that the high rates of HIV in the African-American population are directly linked to high rates of incarceration among African-American men and their subsequent homosexual behaviors while incarcerated,⁹ evidence to support this theory has not been substantiated.⁴⁶ The vast majority of AAMSM are likely to have been infected with HIV outside, rather than within a jail or prison setting.^{47,48}

WHAT IS NOT KNOWN

Currently there are several gaps in the research literature that dampen an effective response to reducing HIV/AIDS among AAMSM and their sexual partners. We have identified several important areas of research inquiry that have thus far eluded focused attention. These areas include research to: 1) examine and reduce the impact of unrecognized HIV and STD infection on continued HIV transmission, 2) develop community-level interventions to reduce the HIV/AIDS stigma, and 3) develop community-level interventions to reduce intracommunity and familial discrimination toward AAMSM.

According to CDC STD surveillance data, a greater proportion of AAMSM than MSM of other races and ethnicities was diagnosed with urethral gonorrhea, pharyngeal gonorrhea and syphilis in 2005.⁴⁹ Moreover, a

recent study of MSM who attended STD clinics between 1990-1999 found that HIV-positive AAMSM were more likely to be coinfecting with HIV and an STD than MSM of other races or ethnicities.⁵⁰ Since unrecognized STD and HIV are partly responsible for the disparate HIV infection rates among AAMSM, emphasis should be placed on implementing healthcare models that integrate HIV and STD outreach and screening in traditional and nontraditional settings for AAMSM, including testing in bars, bathhouses, emergency rooms and jails.^{51,52}

AAMSM are as likely to report ever testing for HIV as white MSM.²⁷ Nevertheless, AAMSM are much more likely to be HIV infected and not know it than white MSM.^{1,24} High rates of HIV incidence observed among AAMSM^{1,23,28} would suggest that the CDC's annual HIV testing recommendations for high-risk groups may not be adequate to detect the number and frequency of new infections in groups with a very high prevalence of HIV infection.

The small subsamples of AAMSM in previous studies and the absence of research questions to address undiagnosed HIV infection have precluded an adequate assessment of why so many AAMSM are unaware of their infection. The lack of information is a critical gap, given that many of the new HIV infections are transmitted by those who are unaware of their status²⁶ and the fact that persons who are aware of their infection adopt behaviors to reduce transmission to others.⁵³ Research in this area should focus on shifting attitudes and policies to support more frequent testing among AAMSM and developing methods to make testing modalities more convenient and acceptable for AAMSM.

Although AIDS and HIV infection rates among AAMSM have rivaled and surpassed those of white MSM since the early days of the epidemic,^{54,55} this has not always been acknowledged by AAMSM, the rest of the African-American community or the American public as a whole.⁹ This delayed recognition of the magnitude of the HIV problem in AAMSM and the lack of evidence-based and focused responses to curtail it have hampered an appropriate response to the HIV/AIDS crisis in African Americans. Only recently have the media more effectively presented the alarming HIV/AIDS statistics to the African-American community. Research questions that remain unanswered are how to change community norms to better acknowledge HIV risk and how to influence African Americans in general to mobilize in the fight against HIV in MSM.

A final and very important underresearched topic is the extent to which discrimination based upon sexual orientation, also known as homophobia, has contributed to African Americans' disproportionate risk for HIV. The issue of discrimination against MSM within the African-American population as an important contributor to fueling the spread of HIV among all African Americans is of such importance that it is now raised in forums of presidential candidates on how to control HIV within the

African-American community.⁵⁶ Discrimination against AAMSM within African-American families and communities may help explain why HIV has infected nearly one in two AAMSM in some cities without swift action or response from the African-American community.

RESEARCH RECOMMENDATIONS

We acknowledge that:

- Significant lessons were learned by investigations among primarily gay white MSM that examined the natural history of HIV.^{57,58} Such research is now urgently needed for AAMSM. We recommend building upon the work of others⁵⁹ and developing a nationally representative cohort of young AAMSM that can be prospectively evaluated for the risk of HIV and STD acquisition, including such factors as sexual and social network characteristics, stigma and discrimination, geographic setting, racial and sexual identity, drug and alcohol use, coinfections and comorbidities, and health and socioeconomic status. Such a cohort may also be used to recruit AAMSM's sexual and social network members to do related studies on the roles of networks, as well as to test the effectiveness of potential interventions.
- We cannot assume that interventions developed for other populations will be successful with AAMSM. We therefore recommend that prior to such interventions being implemented they be rigorously adapted for the unique characteristics of AAMSM, including issues involving intracommunity and familial discrimination, sexual and social networks and coinfections with STDs, among others. Such adapted interventions must be carefully and thoroughly evaluated for effectiveness and sustainability over time before being scaled up to a regional or national level.
- We recommend that additional research be conducted to enhance the understanding of potentially important factors such as STD coinfections, sexual and social networks, knowledge of HIV status and discrimination toward MSM that may place AAMSM at a particularly high risk for HIV acquisition.
- Healthcare models that integrate HIV and STD screening in traditional and nontraditional settings for AAMSM, including testing in emergency rooms and jails, should be developed and evaluated.
- Community and family discrimination toward AAMSM may be related to the lack of disclosure among AAMSM and may make it harder to reach them with prevention messages. We recommend that research be supported and conducted to elucidate effective ways to decrease discrimination toward AAMSM. Interventions should also be

developed to assist and support AAMSM who wish to disclose their same-sex behaviors to their partners, friends and families.

- Finally, we recommend that research be supported that enhances understanding of how resiliency, and cultural and social factors specific to AAMSM can be used in a positive way to strengthen HIV prevention and care for MSM.

In order to control the HIV epidemic among African Americans we must control it among AAMSM. Research must be conducted that helps us better understand the biological, behavioral, social, and system- and contextual-level factors that place AAMSM at risk. Such knowledge must guide our research in developing effective HIV prevention interventions for AAMSM and their partners.

ACKNOWLEDGEMENTS

The authors would like to thank Drs. Daniel Jay Ortiz and Laura Bogart for their suggestions on earlier drafts and Dr. Sangeeta Fernandes and Faith Muhlenburg for their support.

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Incarceration, African Americans and HIV: Advancing a Research Agenda

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Financial support: This article was supported in part by grants from the UCLA/Drew Project EXPORT, NCMHD, P20MD000148/P20MD000182 from the National Center for Minority Health and Health Disparities, California HIV/AIDS Research Program-funded Institute for Community Health Research (CH05-DREW-616, CH05-LAC-617, CH05-RAND-618) and the National Institutes for Mental Health-funded UCLA/Drew/RAND Center for HIV Identification, Prevention and Treatment Services (5P30MH058107).

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 discrimi-

nation 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 population²⁵ but make up 44% of all prison and jail inmates¹² 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 inter-related 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 intraprisoon 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 institutions⁵⁰ 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 settings⁵⁶ 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 cer-

tain 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 here⁸ 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 health-care, 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.

ACKNOWLEDGEMENTS

We acknowledge the following people for their comments and suggestions on early drafts: Olga Grinstead, Rhondee Benjamin-Johnson, Vincent Jones, Sharif Sawires and Mary Sylla. We would also like to thank Sangeeta Fernandes and Faith Muhlenburg for their support.

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