The African-American Experience with HIV Disease
Michael T. Myers, Jr., MD

From the beginning, the AIDS epidemic has had a pervasive and far-reaching impact on the African-American community. Indeed, few other groups in the United States have been more uniformly affected by HIV disease, which has cut its swath across age, gender, sexual orientation, and class categories of Blacks. This article discusses the African-American experience with HIV disease, and provides practical approaches to the clinical management of the Black HIV antibody positive adult.

Health Status of Blacks in the United States

Political, social, and economic factors, as well as health conditions, have all contributed to the spread of HIV disease in the Black community. The socio-economic status of most Black families in the U.S. is abysmal: on average, African Americans have higher rates of unemployment, lower incomes, and more widespread poverty than White Americans. The pervading influence of racism in almost every social encounter between Whites and Blacks exacerbates this inequity and limits opportunities for economic relief and health care.

Black Americans have significantly higher infant mortality rates, shorter life expectancies, and more serious chronic illnesses than White Americans. The 1985 Task Force Report on Black and Minority Health offers the best illustration of this situation: from 1979 to 1981, there were 58,942 excess deaths among African Americans. Excess deaths are the number of actual deaths among Blacks younger than 70 years-old minus the number of deaths that would be predicted using comparable death rates for the U.S. White population. Six causes accounted for more than 80 percent of mortality among Blacks between 1979 and 1981: cancer, cardiovascular disease, chemical dependence, diabetes, homicide, and infant mortality. The report concludes that social and economic factors—nutritional status, smoking patterns, distribution and use of health resources, knowledge and attitudes about health maintenance, and economic differences—were the major contributors to the observed disparities.

Similar factors can be implicated in the spread of AIDS in the Black community. Poverty, a sense of hopelessness about the future, and a perceived lack of power may lead some African Americans to use illicit drugs. Inaccurate knowledge about HIV transmission, and a failure to perceive risks for infection, to recognize symptoms of HIV disease, and to practice risk reduction may account for the failure of prevention strategies among Blacks. The lack of adequate health care and health insurance may inhibit access to treatment.

Epidemiology among Black Americans

While African Americans equal only 13 percent of the United States population, they comprise about 30 percent of all reported AIDS cases with male, female, child, and prison populations all significantly affected. About 80 percent of all AIDS cases in African Americans are among men: 44 percent of Black men with AIDS have acquired HIV through homosexual behavior; 36 percent through injection drug use; and the remaining 20 percent through a combination of homosexual behavior and injection drug use, heterosexual behavior, and unidentified routes. As of January 1992, women comprised 11 percent of reported AIDS cases, but of...
Editorial: The Changing Epidemic
Robert Marks, Editor

If you are a student of the epidemic, you know already that Blacks in the United States are not only disproportionately affected by AIDS but also could in the next 10 years replace gay White men as the primary focus of HIV infection. Little of the current literature, however, has probed the implications behind these relatively nondescript demographic statistics. Does HIV disease manifest differently in gay White men than it does in Black heterosexuals? Are there differences in the way clinicians should care for Black men or Latino women? Do the treatments that work in Whites work similarly in Blacks, in Latinos, in women? Do the demographics tell us anything about differences in risk behaviors and prevention strategies?

The articles in this month’s FOCUS—Michael Myer’s analysis of the African-American experience of AIDS and Mindy and Robert Fullilove’s report on a study of ethnic differences in risk behavior—provide the latest data to answer these questions. The first outlines guidelines for medical practitioners lacking experience treating Black Americans, and the second offers insights for practitioners and educators targeting ethnic, including White, populations. As the epidemic follows the course of demographic change, the specific information embodied in these articles should help professionals adjust without sacrificing the quality of their responses.

Two other observations are notable. First, Myers reminds us that this is not the first time the epidemic delivers these clients to their offices.

AIDS cases among Black children, 85 percent had mothers with a primary history of injection drug use or mothers with sexual partners with this history. One out of four young Black men is entangled in the U.S. criminal justice system—either under arrest, in jail, facing trial, or on parole. In 1985, 46 percent of U.S. prisoners were Black, and seven times as many Blacks as Whites were incarcerated. A 1990 study found that HIV seroprevalence in prisons ranged up to 15 percent. While most HIV disease occurs outside of prisons, these figures suggest that for Blacks, prisons may become a site of HIV transmission and care.

Seroprevalence Studies and the Future

Seroprevalence studies provide insights into the continuing spread of HIV infection among African Americans. A study of the U.S. Army Reserve and the Army National Guard, a population of “civilian soldiers” sharing many of the same characteristics with the general population, revealed that 57 percent of entry blood samples testing antibody positive were among Black recruits. Blacks represented only 20 percent of the study participants.

These cases 53 percent were among Black women. The primary routes of HIV transmission for these women were through injection drug use (55 percent) and heterosexual contact with men at risk for HIV infection (24 percent). In 1987, AIDS became, and remains, the number one cause of death for Black women of reproductive age (15 through 44) in New Jersey and New York. Indeed, the heterosexual person most at risk for HIV disease in the U.S. is a Black woman whose social and economic conditions have led her to injection drug use or to having sex with an injection drug using man.

AIDS among infants and children is almost entirely a disease of Blacks and Hispanics. By January 1992, 3,471 children under the age of 13 had AIDS, and 53 percent of these were Black. A 1991 study of U.S. children younger than 15 years found that for Black children in the U.S. the death rate from AIDS was six times higher than for White children, and eight times higher for Black children younger than one year old. In New York state, AIDS was the second leading cause of death in Black children ages one through four. Of all perinatally acquired...
In the U.S., the heterosexual person most at risk for HIV disease is a Black woman whose social and economic conditions have led her to injection drug use or to having sex with an injection drug user.

Since military studies may be limited in reliability because they exclude recruits based on sexual orientation and drug use history, it is notable that similar results were found in a study of U.S. Job Corps entrants tested from 1987 through 1990. The Job Corps provides training for high-school dropouts under the age of 21, the majority of whom are poor and have never held full-time jobs.

Of the 137,209 Job Corps students screened, 488, or 3.6 per 1000, were seropositive, 10 times higher than similar screenings in military applicants under 21. For Black and Hispanic students in Northeastern cities, seroprevalence was especially high, a rate of 5.3 per 1000 students, reaching 24.8 per 1000 in a subset of students who were 21 years old. Although interpretations of these data may be disputed, their significance is clear: HIV disease will continue to disproportionately affect Black men and women.

Clinical Manifestations and Prognosis

Black patients develop *Pneumocystis carinii* pneumonia (PCP), oral and esophageal candidiasis, cerebral toxoplasmosis, and mycobacterial infection—both *Mycobacterium tuberculosis* (TB) and *Mycobacterium avium-intracellulare* (MAI)—more frequently than they develop other opportunistic infections. While all people with HIV disease are subject to such opportunistic conditions, there are factors, specific to Blacks, that affect HIV manifestation and treatment. Recent outbreaks of drug-resistant strains of TB—probably related to social conditions such as poverty, crowding, and injection drug use—have been observed in Florida and New York, states with high numbers of Black HIV-infected patients. Cytomegalovirus (CMV) infection and Kaposi’s sarcoma are less common among Blacks than among White gay men, although it cannot be inferred at this point that either sexual orientation or race causes this difference.

Most disturbing is that Black people with HIV disease have a dramatically shorter average life expectancy once diagnosed with AIDS. White patients live two to three years after diagnosis; Black patients live only 19 weeks after diagnosis. This glaring difference may have more than anything else to do with socio-economic factors that limit African Americans’ access to appropriate therapies, clinical follow-up, monitoring, or drug trials. Expensive medications like ZDV (AZT; zidovudine) and drugs to protect against PCP are financially out of reach to many Black patients who need them most. About 20 percent of all uninsured patients are Black, and a larger proportion are insured by Medicaid, which is limited in coverage and less and less often accepted by doctors and hospitals. Finally, the paucity of physicians, nurses, clinics, and other ambulatory care sites in the Black community means that even if insurance is available, a care setting may be inaccessible to public or personal transportation.

Caring for the Black Seropositive Adult

The primary care and clinical management of the Black HIV antibody positive adult is in many ways no different than the approach used for other adults with HIV disease. Black patients, however, are prone to a number of illnesses and conditions that not only affect the expression of HIV-related diseases but require alteration of the usual treatment regimens. Hypertension is more prevalent in Blacks than Whites, and the occurrence of renal failure is a complication of high blood pressure. This means that it may be more difficult for the body to eliminate many medications—such as trimethoprim-sulfamethoxole (TMP-SMX)—used to fight HIV disease.

Glucose-6-phosphate dehydrogenase deficiency (G6PD deficiency)—the lack of an enzyme red blood cells require for metabolism—is a condition found in 15 percent of African-American men. Men with this condition who take drugs like TMP-SMX are more likely to develop hemolytic anemia, due to the destruction of red blood cells. On the other hand, Black patients may also have an apparent leukopenia—a measurable but not clinically significant lower number of circulating white blood cells—which should not be used alone as a criterion to stop or alter drug therapy.

The clinical presentation of a host of dermatologic diseases is different in Black HIV-infected patients. Post-inflammatory and post-infectious skin darkening is not
uncommon, a flaky rash from seborrheic dermatitis may be more pronounced, and the skin must be examined with care to rule out the presence of Kaposi’s sarcoma, which may be hidden by the darker pigmentation of Blacks.

Finally, recent concerns about diminished effectiveness of ZDV in African-American patients—based on a highly publicized Veterans Administration study that drew conclusions from insufficient data—have remained unjustified. Recent studies of ZDV have proven that it is effective in Blacks.

Suggestions for Clinical Management

Primary care physicians should carefully note in the medical history of Black patients the presence of G6PD deficiency or blood disorders such as sickle cell anemia and ß-thalassemia trait, a condition caused by the presence of a type of hemoglobin. In addition, they should note previous infections or exposures to TB and syphilis. Since Black patients raised in central, Mid-Atlantic, or southeastern U.S. states may have been exposed to fungal organisms, blastomycosis, or histoplasmosis, practitioners should note geographic history as well. They should also include family history of hypertension, diabetes, kidney failure, alcoholism, or TB.

The complete physical should include a careful eye examination, with referral made to optometrist or ophthalmologist for intraocular pressure readings and detailed slit lamp examination, tests that may detect glaucoma. Additional lab tests should include G6PD assay, complete blood count, RPR (syphilis serology), tuberculosis tests, a baseline serum toxoplasma titer, and other standard assays for liver, renal, and metabolic function.

Conclusion

The AIDS epidemic has uncovered the worst elements of American society: fragmented health care that remains a luxury for many people, undue profit taking by U.S. drug companies, and covert racism and homophobia lurking just beneath the American consciousness. More than anything else, these factors account for the shocking epidemiologic differences observed in African Americans, explaining why these patients present later in their illnesses and die sooner than their White counterparts, and assure the continued spread and proliferation of HIV within this community.

On a more intimate level, socioeconomic status and long-standing barriers to health care also affect the relationship between African Americans and their primary care providers. By acknowledging the fact that many Black patients will be unfamiliar with the dynamics of health care provision, may avoid care because of its expense, and may mistrust a medical system that has treated them poorly in the past, clinicians can address basic concerns that must be resolved before treatment begins. By learning about the differences—as well as the similarities—in diagnosis, course, and treatment of HIV disease in African Americans, clinicians prepare themselves to deliver appropriate care to a population that will dominate the future of the epidemic.

References


5. For further information see the following Clearinghouse (page 4-5) citations: Lagakos et al., Easterbrook et al., and Smith.

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Clearinghouse: Blacks and HIV

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Holman PB, Jenkins WC, Gayle JA. Increasing the involvement of national
HIV Risk in Multi-Ethnic Neighborhoods
Mindy Thompson Fullilove, MD and Robert E. Fullilove, III, EdD

No study to date has been adequately designed to assess the degree to which general populations of young adults, ethnic minorities, and women may face special risk for heterosexually-acquired HIV infection. The AIDS in Multi-Ethnic Neighborhoods Study (AMEN) was designed to enable researchers to examine the distribution of HIV risk behaviors and infection across groups defined by race, gender, and sexual orientation, and to assess the types and amount of sexual contact between homosexually-active men, injection drug users, and other members of the population.

The target population for the study included: currently unmarried men and women, aged 20 to 44, living in 16 census tracts of San Francisco. These tracts were located in three neighborhoods characterized by high rates of reportable sexually-transmitted diseases (STD) among women, high rates of admission to drug detoxification programs, and by roughly equal numbers of Black, White, and Hispanic residents.

Of the 2,755 people meeting the survey criteria, 1,770 (64 percent) agreed to be interviewed between 1988 and 1989. The sample was almost equally divided between men and women and included 41 percent Whites, 26 percent Blacks, 25 percent Hispanics, and 8 percent a mixture of ethnic backgrounds. Interviewers asked subjects to identify those HIV-related risk behaviors in which they had engaged in the previous year.

Seroprevalence
Of the 1,770 subjects, 1,369 (77 percent) agreed to HIV antibody testing. Among those tested, 69 (5 percent) were seropositive. Infection rates were higher among men, 66 of whom were infected, and among Whites, those with higher incomes, and those with more years of education, all of which reflects the demographic characteristics of homosexually-active men in San Francisco.

Of the 66 infected men, 35 percent were both homosexually-active and injection drug users, 55 percent were homosexually-active only, and 5 percent were injection drug using only. Of the three infected women, two reported using injection drugs and one reported no risk behaviors.

Seroprevalence was 59 percent among men reporting both homosexual activity and injection drug use, 32 percent among those reporting homosexual activity, and 5 percent among those reporting injection drug use. The combined seroprevalence of men reporting other risk behaviors and reporting no identified risk was 0.9 percent. For the women, the prevalence among injection drug users was 2.8 percent. The combined seroprevalence of those reporting other risk behaviors and reporting no identified risk was 0.2 percent.

The AMEN study confirms previous findings of high seroprevalence among and regional racial and ethnic minority organizations in HIV information and education. Public Health Reports. 1991; 106(6): 687-694.


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See also references cited in articles in this issue.
References


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homosexually-active men in San Francisco, and of higher seroprevalence among homosexually-active men who are also injection drug users.

An important new finding is that while the prevalence of homosexual activity is higher among White men than among Black or Hispanic men, the proportion of seropositive homosexually-active men is high in all racial groups (36 percent among Hispanic men, 45 percent among White men, and 63 percent among Black men). Also significant is that homosexually-active men living in more outlying urban neighborhoods of San Francisco—where they comprise about 10 percent of single young men—have a lower seroprevalence than homosexually-active men in epicenter neighborhoods. This suggests that HIV infection rates among homosexually-active men in many U.S. communities may be considerably lower than those observed in samples selected from high-risk urban settings.

Risk Behaviors
Homosexually-active men who were injection drug users—197 of respondents—reported higher rates of risk behaviors than the rest of the sample. But of the 1573 respondents who were not injection drug users or homosexually-active men, a significant proportion—12 percent—engaged in some risk behaviors in the year prior to questioning. Among these behaviors were: having a sex partner who used injection drugs (5 percent), having unprotected sex with more than four partners in the past year (3 percent), and, among women, having sex with a homosexually-active male partner (2 percent).

Of particular importance is the fact that among people who were neither homosexually-active nor injection drug users, White women (21 percent) and White men (14 percent) were most likely to report one or more risk behaviors. It may be reasonable to extrapolate these San Francisco findings to other communities in the U.S. where the epidemic is not driven by injection drug use.

Among 1229 people who were sexually active in the year prior to interviews, half reported that they had used condoms at least some of the time. Gay and bisexual men were most likely to use condoms at least some of the time (89 percent), but more than half of those with multiple sexual partners had unprotected anal intercourse. While 54 percent of heterosexual men used condoms at least some of the time, only 39 percent of heterosexual women reported that their male partners used condoms to this degree. Unmarried heterosexuals and homosexuals with multiple partners were least likely to use condoms.

In response to the question, “Have you used [a specific drug] for recreational purposes?” 51 percent of subjects reported using marijuana, 31 percent using cocaine, and 9 percent using crack in the previous year. One-quarter of respondents reported that they had used drugs during sexual intercourse at least once with at least one sexual partner in the past year. This behavior was significantly more common among Whites (32 percent) than non-Whites (17 percent) and among seropositives (49 percent) than seronegatives (24 percent). Those with more sexual partners were more likely to use drugs during sex than were those with fewer sexual partners.

Conclusion
While the AMEN study confirms that most of those who are infected are members of the “high-risk groups”—homosexually-active men or injection drug users—it also reveals sexual connections between those in “risk groups” and those not in “risk groups.” For example, 5 percent of those not in high-risk groups reported sexual intercourse with an injection drug using partner, and, among women, 2 percent reported sexual intercourse with homosexually-active men. These sexual connections indicate that the virus can and will travel throughout society and to new geographic areas.

Finally, while federal officials have been unwilling to fund household studies, the AMEN experience proves not only that these studies can provide rich information to shape prevention programs, but also that a broad cross-section of people are willing to discuss the intimate details of

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**Recent Reports**

**Tuskegee and HIV Disease**

The Tuskegee Syphilis Study, a glaring example of the mistreatment of Black Americans, is often perceived by Blacks as a justification of HIV-related conspiracy theories, including the belief that HIV was developed as a weapon to use against Blacks. This review article offers an historical perspective of the study and its implications for responding to HIV disease.

In the Alabama study, public health officials examined 399 Black men with syphilis for up to 40 years to determine the health effect of syphilis when left untreated. Participants were not educated about the disease, were not told the disease was contagious, and were prevented from receiving treatment even though treatment was available and required by state law. Patients were followed until their deaths, and the study ended only after it received press attention in 1972.

Surprisingly, the Tuskegee study offers some valuable lessons about research among Blacks. It was multicultural, and used Black churches for exam sites and a Black nurse as primary patient contact.

**Health Concerns and Ethnicity**

In a survey of residents of working class communities in southern California, Blacks and Hispanics identified AIDS as their primary health concern, while Whites identified cancer. There was no correlation between the rank of a concern and its incidence in a particular population, which indicates the need for better education about the actual threat of health problems.

The door-to-door survey of health concerns and attitudes towards health education was conducted in the spring of 1989 in Long Beach, California. Respondents were asked to name and rank their health concerns, define the level of their concern about each item listed, and state whether they would respond to neighborhood-based AIDS education. Of 453 respondents 72 percent were female, 33 percent were Black, 30 percent were Hispanic, and 37 percent were White.

Respondents identified 10 health concerns, including cancer, heart disease, high blood pressure and diabetes. Regardless of health threat, younger men and older women expressed the most concern about the items they listed. Black women were most concerned about heart disease and high blood pressure. Men younger than 25 years old were most concerned about drug abuse.

Home-based AIDS education was acceptable to 77 percent of Blacks and 67 percent of Hispanics, but to only 41 percent of Whites. Women were much more likely than men to express an interest in AIDS education, and younger respondents were more open than older respondents to hosting AIDS discussion groups at home. These findings suggest a cultural and ethnic preference for more personalized, interactive, and informal AIDS education.

**People of Color in Clinical Trials**

As a result of the underrepresentation of people of color in HIV-related clinical trials in the United States, members of ethnic minorities have lacked access to treatments available through trials, and the conclusions drawn from these studies may be imprecise and misleading.

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Scientific and ethical standards require a change in this situation.

The traditional routes of referral to clinical trials—provider and self-referral—are not effective in changing this situation. People of color tend to receive care at neighborhood hospitals, historically not the sites of clinical trials, and they are reluctant to seek care at unfamiliar institutions. Located in poor neighborhoods, frequently understaffed and crowded, public clinics and hospitals do not have the resources to offer clinical trial education, to identify trials for patients, or to explain the importance of trials.

In addition, social and economic needs are often more pressing than the medical needs of people of color. This may limit recruitment and compliance with trial regimens, and require that money be budgeted to include supplemental social services such as child care, transportation, and substance abuse treatment. The Harlem AIDS Treatment Group is an example of a successful clinical trials program that is able to recruit people of color and overcome the obstacles that limit their participation. Some of their success is based on their willingness to address the fears and mistrust among Black Americans of the health care system.

Antibody Testing Behavior in Young Adults

Berrios DC, Hearst N, Perkins LL, et al. HIV antibody testing in young, urban adults. Archives of Internal Medicine. 1992; 152 (Feb): 397-402. (University of California San Francisco, University of Alabama, Birmingham, Bowman-Gray School of Medicine, and Kaiser Permanante Medical Center.)

A multicenter survey—conducted in Chicago; Minneapolis; Oakland, California; and Birmingham, Alabama—found that 29 percent of young, urban adults have taken the HIV antibody test. The survey found that while Blacks were less likely than Whites to have heard about antibody testing, among those who had heard about the test, Blacks were more likely than Whites to have been tested.

Response rates to a questionnaire mailed in late 1989 to 2,729 eligible subjects were highest among White women and lowest among Black men. The questionnaire asked about sexual history, risk for HIV infection, knowledge of HIV transmission, and antibody testing. Of the 1,965 respondents, almost all were between 21 and 36 years old, 13 percent were Black men, 27 percent were White men, 24 percent were Black women, and 36 percent were White women. In addition, of those tested, 35 percent of Black women, 40 percent of White men, 42 percent of Black men, and 44 percent of White women were tested as a result of blood donation, or military or government service.

Men were much more likely to have been tested than women, and women were less likely than men to have heard about the antibody test. Blacks (27 percent) and Whites (29 percent) had approximately equal rates of testing, although Blacks (58 percent) were less likely than Whites (76 percent) to have heard about the test. Level of education was not correlated with testing behavior.

Consistent with earlier studies, gay and bisexual men reported most often that they had tested, while injection drug users and their sexual partners reported least often that they had tested.

The survey data suggest that health information about the necessity for antibody testing is successfully reaching the homosexual and bisexual communities. The data also indicate that efforts should target the injection drug user and Black communities, where education should lead to increased testing.

[Editor’s note: The fact that a relatively high percentage of respondents were tested as a result of blood donation, or military or government service suggests that involuntary testing plays a role in the study results and tempers conclusions about testing behavior and education.]

Next Month

Over the past few years, there has been an explosion of reported AIDS cases in rural and semi-rural areas of the United States. Services for this growing population of HIV-infected people, however, lag significantly behind services for their city cousins. In the April issue of FOCUS, Scott Eberle, MD, Medical Director of the Early Intervention Center in Santa Rosa, California, reviews the success of models for HIV-related care delivery in three rural and semi-rural counties and compares the rural and urban experience of HIV-related care.

HIV-related mental health issues are complicated for clients by the social and political realities of rural life. Also in the April issue, Alan Drucker, MD, a faculty member of the San Joaquin Valley AIDS Education and Treatment Center in California, describes the challenges and approaches for practitioners seeing clients in rural areas.
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