New perspectives on the social and economic contexts of HIV/AIDS infection

In the United States, the HIV/AIDS epidemic was first associated most widely with a group that by many definitions was economically advantaged though often socially stigmatized—white gay males. Partly as a result, research has tended to focus on the psychological and medical plight of infected individuals and has somewhat neglected the employment, economic, and social consequences of the epidemic. But rates of HIV/AIDS infection are now rising disproportionately among low-income black men and women, who have very different social experiences, family circumstances, and employment histories and prospects from those who have historically received the most attention from researchers and policymakers. Researchers are just beginning to ask how they can best address the complex social, economic, and cultural contexts of this epidemic for economically disadvantaged groups and for racial and ethnic minorities.

This article reports work by two recent visitors at IRP who study the problems posed by HIV/AIDS from very different disciplinary perspectives. Both focus on the disadvantaged black men and women among whom infection is rising most swiftly. In a recent analysis, Rucker Johnson, an economist and public policy scholar, explored the incidence of infection among black women and men in conjunction with the higher levels of incarceration among black men. Are the two linked, he asks, and if so, how? He and his colleague Steven Raphael approached this question through an innovative quantitative analysis of national panel data. Sociologist Celeste Watkins-Hayes considers the aftermath of infection and in a recent piece reflects on how little we know about the experiences of HIV-positive black women in three crucial areas: employment, family dynamics, and intimate relationships. She argues for more intensive research using qualitative, mixed-method, and longitudinal work that examines HIV/AIDS not simply as a medical epidemic, but as a social and economic phenomenon that shapes relations with kin, work, and community. This *Focus* article summarizes her perspectives on work and economic issues.

Trends in HIV/AIDS infection among black men and women

African Americans represent about 12.5 percent of the U.S. population, but have disproportionately high rates of HIV/AIDS infection (Figure 1). Among black men, the annual rate of infection between 2000 and 2003 was 100 per 100,000, compared to fewer than 15 among non-Hispanic white men. Among black women, the rate of infection (55 per 100,000) was 19 times that among white women, and the numbers carrying the infection were much larger. Rates of infection show little sign of slackening. Blacks accounted for 49 percent of all HIV/AIDS cases diagnosed in 2005.[1]

The disparate incidence of HIV infection suggests that groups that have been socially or economically marginalized are particularly vulnerable. For Celeste Watkins-Hayes, the interplay between structural factors and individual behaviors in poor neighborhoods, identified by sociologists like William Julius Wilson, play a critical role.[2] Residential segregation, past and current racial discrimination, the targeted marketing of legal and illegal drugs in low-income communities, inadequate health care, and limited economic resources are all factors that conspire to perpetuate joblessness, drug sale and use, sex work, high incarceration rates, homelessness, and mental and physical illnesses among vulnerable urban and rural residents.

Black male incarceration and HIV/AIDS infection rates: Is there a link?

Among a number of potential explanations for higher infection rates, Johnson and Raphael focused on the relatively high level of black male incarceration. They did so for strong reasons. The prison system contains perhaps the highest concentration of HIV infection in the United States. In theory, the effect of an increase in male incarceration on HIV infection is ambiguous: incarceration of infected men removes them as a risk to the community at large. And as HIV infection rates rise, the perception of risk in sexual activity may be expected to rise and people may modify their behavior to counteract that risk. But there are offsetting factors: male incarceration in particu-

The research briefly summarized here is presented at length in two papers:

Rucker C. Johnson and Steven Raphael, "The Effects of Male Incarceration Dynamics on AIDS Infection Rates among African American Women and Men," Working Paper 22, National Poverty Center, University of Michigan, 2006.

Celeste Watkins-Hayes, "The Social and Economic Context of Black Women Living with HIV/AIDS in the U.S.: Implications for Research," in *Gender, Sexuality, and HIV/AIDS: The Caribbean and Beyond*, ed. R. Reddock, S. Reid, D. Douglas, and D. Roberts, forthcoming.

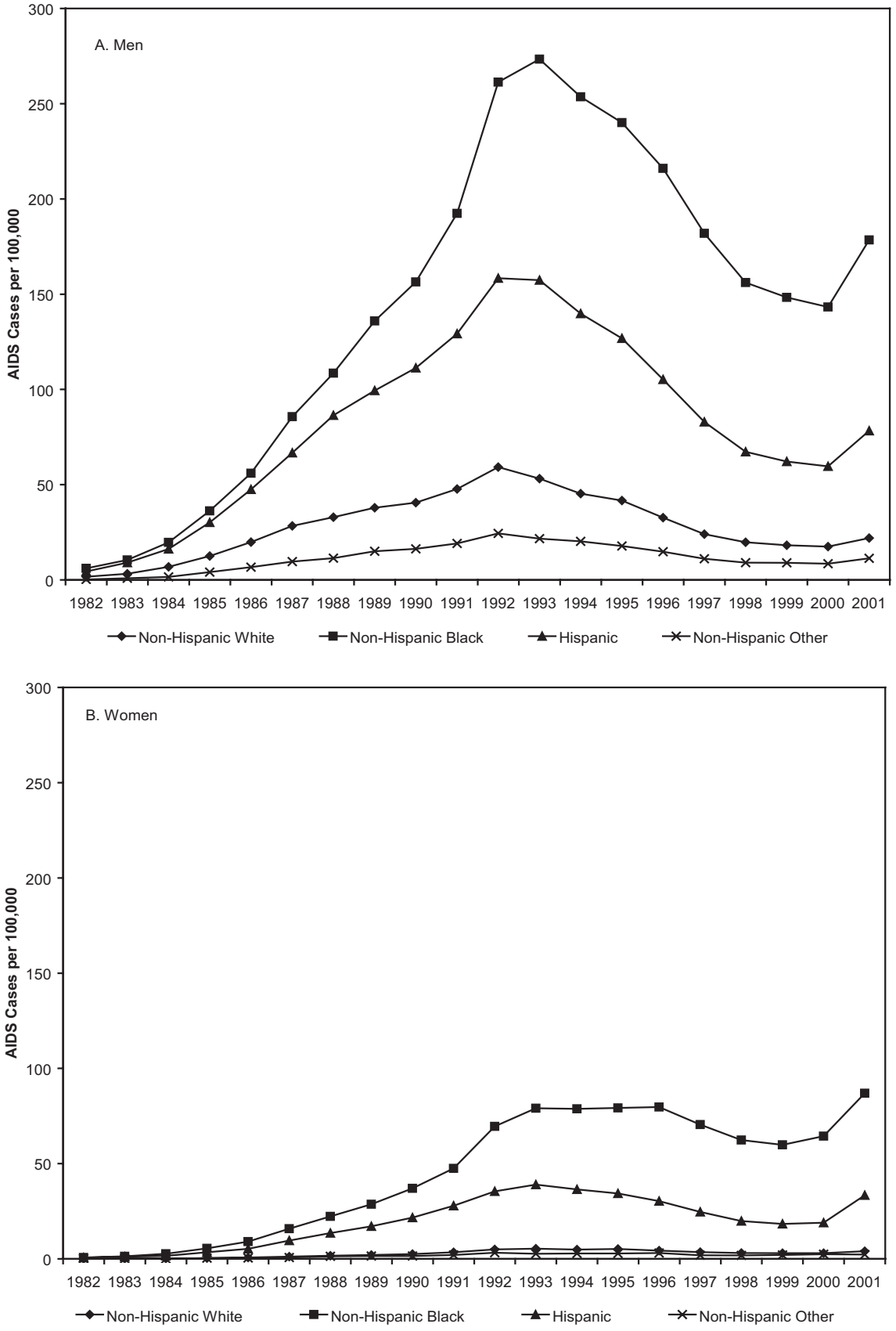

Figure 1. Annual newly diagnosed AIDS cases among those aged 20–64, by race and ethnicity, 1982–2001. A. Men. B. Women.

Source: R. Johnson and S. Raphael, "The Effects of Male Incarceration Dynamics on AIDS Infection Rates among African American Women and Men," Working Paper 22, National Poverty Center, University of Michigan, 2006.

lar lowers the male-to-female sex ratio, abruptly disrupts the continuity of heterosexual relationships, and increases exposure to homosexual activity among the incarcerated.

These are risk factors to which the black community is particularly vulnerable. Roughly one-fifth of black adult males in the United States have served time, and many of these men have cycled in and out of correctional institutions in their early adult lives. The ratio of men to women among the noninstitutionalized population is markedly lower for non-Hispanic blacks than for non-Hispanic whites. Black women are nearly twice as likely as white women to have recently had concurrent partners, and on average have higher lifetime numbers of partners (both of these may be related to higher black male incarceration rates).[3]

The empirical strategy adopted by Johnson and Raphael relied on the fact that the overwhelming majority of marriages and, by extension, sexual relationships, occur between men and women of similar age, race, and ethnicity, living in the same area. The researchers were able to define sexual relationship networks using representative national data from the U.S. Centers for Disease Control and Prevention. They constructed a panel data set of AIDS-infection rates covering the years 1982–2001 (AIDS is used as the sample identifier because there are no national data for the early stage of HIV infection). Johnson and Raphael had information about the year of onset, the mode of transmission, and the residence, age, sex, and race or ethnicity of infected persons. Using U.S. Census data, they constructed a panel of male and female incarceration rates matched to the AIDS panel by state, year, race, and age. They then used these data to model the dynamic relationship between AIDS infection rates and the proportion of men in the matched cohort of those incarcerated at any point between 1980 and 1996. To allow for the often large lag between the time of infection and the development of a full-blown AIDS syndrome, they estimated the effects of increases in incarceration on the AIDS epidemic over the subsequent 13-year period.

The conclusions from this research are unambiguous. The authors found:

1. Between 1980 and 1996, male and female AIDS infection rates increased the most among demographic groups that experienced the largest increases in male incarceration rates. These effects persisted even after the authors included controls for characteristics of the specific relationship "market"—such as the prevalence of drug use or behavioral norms—and allowed for race- and age-specific trends.

2. The strength of the observed relationship between increases in male incarceration and AIDS infection rates increased with time, paralleling the time between HIV infection and the emergence of full-blown AIDS. That is, an increase in incarceration at one point generated very few new AIDS cases immediately and an annually increasing number of cases over the next ten years or so.

3. The higher incarceration rates among black males over the period of study explain the lion's share of the racial disparities in AIDS infection rates between black women and women of other racial and ethnic groups. Figure 2 depicts the actual black-white differences in infection rates and the difference after accounting for incarceration rates. For men, the disparity in infection rates would have greatly diminished; among black women, the rate would have been *lower* than for white women.

During the 1990s, infection occurring through heterosexual sex, not intravenous drug use, was the largest contributor to the growth of the racial disparities in HIV infection rates among women. Among men, the increasing black-white disparity in homosexually contracted AIDS infections is fully accounted for by the higher incarceration rates of blacks, providing further evidence of the link between incarceration and AIDS.

How robust are these findings? The authors examined the effects of state prison overcrowding litigation that resulted in short-run increases in prison release rates. They also investigated the effects of intrastate changes in sentencing and parole regimes on AIDS infection.[4] The results suggest that prison release rates and state prison sentencing policy reforms had highly significant effects on subsequent AIDS infection rates. More prisoners released created spikes in AIDS infection rates that manifested themselves 5 to 10 years later, primarily for African Americans and women. These patterns lend further support to the hypothesized relationship between incarceration and AIDS infection rates.

These results, say the authors, suggest that there are large and unintended health consequences for former offenders and for unincarcerated members of communities that send disproportionate numbers of their young men into state and federal prisons. Beyond the immediate and severe effects on the health and happiness of the incarcerated and their partners in the community, these consequences include increased postprison medical expenditures for the larger numbers infected. Moreover, the empirical and theoretical analysis undertaken here can easily be extended to other communicable diseases that are thought to be transmitted among prisoners—tuberculosis and hepatitis B and C, for example. The authors assert that any comprehensive assessment of criminal justice policy in the United States should pay close attention to such considerations.

Women living with HIV/AIDS: Exploring the social and economic context

How do women fulfilling multiple roles as mothers, workers, family members, and intimate partners structure

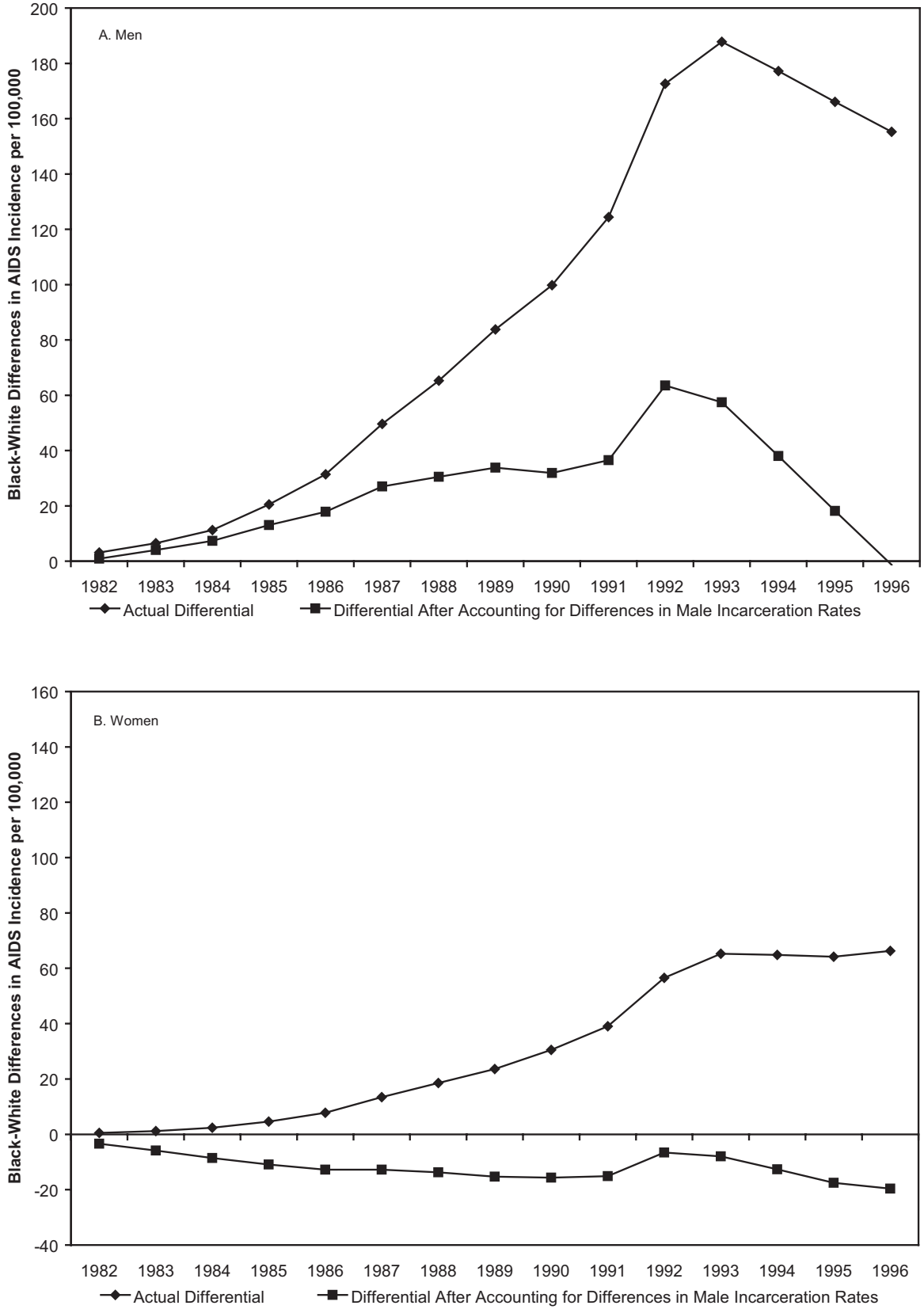

Figure 2. Actual black-white differences in overall AIDS infection rates, and the black-white difference after accounting for male incarceration rates. A. Men. B. Women.

Source: R. Johnson and S. Raphael, "The Effects of Male Incarceration Dynamics on AIDS Infection Rates among African American Women and Men," Working Paper 22, National Poverty Center, University of Michigan, 2006.

their lives following HIV diagnosis? The growing feminization of the HIV/AIDS epidemic worldwide, says Celeste Watkins-Hayes, only strengthens the argument that understanding social and economic factors is essential to the analysis of risk, prevention, and treatment. The persistent poverty and gender inequality found in the developing world where AIDS has spread so rapidly are manifest in U.S. society as well, albeit to a much less severe degree. In a context of clear economic, social, and political hierarchies, women's survival strategies may include transactional sex for money, food, accommodations, protection, and drugs; sexual relationships that involve deep power imbalances and silence around health issues; and coping with severe marginalization through drug use. These are realities that directly and indirectly contribute to rising rates of HIV infection. Race, socioeconomic class, sexuality, and the historical and social meanings they bear shape the filters through which individuals view and experience the world. These assumptions and perspectives are present when people negotiate condom use, digest messages about prevention, seek medical assistance, or determine how they will live their lives once infected.

It is this last issue with which Watkins-Hayes is particularly concerned. There is a growing body of research, she notes, that examines the risk of infection in the context of overlapping social roles and group memberships. And much previous research has explored the psychological impact of HIV infection—its impact on depression and coping ability, for example. The opportunities and restrictions that emerge from race, class, and gender status, from social affiliations and commitments, and from economic circumstances should become a clear focus of analytic attention, clarifying what it means to have HIV. Studies of individual behavior and experiences should explicitly consider the structural and historical contexts of people's lives, making it possible to draw out larger sociological and epidemiological meanings while respecting human complexity and individuality. Watkins-Hayes adopts this kind of conceptual approach in work on women living with HIV/AIDS during prime decades of childbearing and child-rearing, labor force participation, and family and community engagement, roughly from ages 18 to 45.

Employment and HIV/AIDS

In some countries with high rates of HIV/AIDS infection, the collapse of financial stability among families of the infected has led to overall economic decline in the hardest hit areas. The economic impact in the United States has not been so visible, yet it arguably remains a critical if neglected issue. Researchers, particularly at the beginning of the epidemic, conceived of infected individuals as medical subjects with limited life expectancy rather than as labor market actors. And indeed, labor force participation among those diagnosed did decline significantly in the early years of the epidemic. One study of San Francisco-based individuals found that 50 percent of those who worked before being diagnosed with HIV had stopped working within two years, and all had stopped working within 10 years after onset of the first symptoms.[5] Having jobs involving physically demanding labor, or jobs that created high levels of stress, depression, and anxiety, significantly influenced the likelihood that people with HIV/AIDS would stop working.

In recent years, advances in treatment—effective drug therapies, better monitoring of viral loads and T-cell counts, and adequate diets—have greatly improved the capacity of people with HIV/AIDS to carry out the normal routines of life and to extend their life expectancies. Yet returning to work is not inevitable, and it is not unusual for community-based social service agencies that provide information to the HIV-infected to construe work as a risky proposition in an effort to protect their clients. Concerns include the unpredictability of positive drug responses, potential medication side effects, insurance issues, the effects of long work hours and work stress on health, difficulty managing elaborate drug regimens and medical appointment schedules while working, and the fear that disclosure of HIV status might result in loss of the job.[6] These worries conflict with both financial necessity and the value that individuals and American society as a whole place on work. Remaining in the labor force after an HIV diagnosis or returning after an extended absence thus involves a calculus that is both economic and personal.

However, the employment research that has explored the effects and implications of HIV/AIDS infection has focused almost exclusively on white, middle-class, gay men, a population likely to have greater levels of work experience and education than poor minority women with HIV/AIDS. The challenges faced by the HIV-positive regardless of race, class, or gender may become overwhelming. Yet, it would be surprising if the economic disparities—lower employment rates, wages, and occupational status as well as higher poverty rates—that are known to contribute to the disproportionately high HIV infection rates among poor and minority women did not also shape the everyday work lives of those infected.

Researchers seeking to explore the economic landscape of those with HIV/AIDS can draw upon existing hypotheses regarding the interactions of race, gender, and employment. Watkins-Hayes lists some instances. For example, there is apparently no significant difference in how long white men and less-educated minority women who are working at the time of diagnosis stay employed thereafter.[7] But poor single mothers who do not possess partner support, access to pensions and financial assets, or eligibility for health and disability benefits may have no other choice than to remain in or reenter the labor market following an HIV diagnosis. The more economically advantaged, in contrast, can weigh their options and comfort levels with remaining employed. Another impor-

tant dimension of the issue of HIV/AIDS and work is that the low-wage labor market is a frequent destination for many poor women with HIV/AIDS. As it commonly offers jobs that are physically demanding, assign inflexible work schedules, and have no or few benefits, this challenges the abilities of infected women to effectively balance work and health. For the most economically marginalized, however, an HIV/AIDS diagnosis may reduce economic disadvantage by opening access to housing, health care, cash assistance, and other resources.[8] Watkins-Hayes is currently conducting an analysis of the varying effects of HIV/AIDS on the lives of infected black women that considers these different vantage points.

In addition to the structural conditions of the labor market, research and policy addressing the economic disparities among people living with HIV/AIDS must also consider the human capital needs of infected job seekers. The very circumstances that increased their risk of infection might also make them less employable. Watkins-Hayes argues that successful policies are likely to require the coupling of drug and prisoner rehabilitation initiatives with training, employment support resources, and employer incentives for individuals whose social and economic disadvantages are compounded by chronic illness.

Economic instability is an ever-present concern for many women even if they are healthy. The economic support system of many low-income women is a patchwork of work; help from friends, family, intimate partners, and social service providers; and government assistance. This may be harder to assemble if a woman is HIV-positive, depending on whether and how she chooses to disclose her health status, the degree of acceptance by her family and others, and the resources they can provide her. Watkins-Hayes argues that to craft effective policy and program initiatives, HIV/AIDS research that has focused on the employment experiences of the relatively advantaged must be integrated with the sociological and economic research that focuses on the employment experiences of the disadvantaged.

Introducing the larger social, cultural, and economic contexts of the lives of women infected with HIV is complicated, says Watkins-Hayes, but we have many tools at our disposal. Longitudinal analyses allow us to capture how labor market activities and economic survival strategies change over time. Ethnographic work, both interviews and observation, reveals not only what respondents say but what they do in the multiple environments within which their HIV status is salient. Mixed-method work encourages us to quantify social dynamics and to provide texture to our investigations through the words of subjects and the observations of researchers. Comparative work opens up the possibility of understanding how individuals in different communities and cultures fashion their lives after an HIV diagnosis. This kind of scholarship will help us more fully understand what mechanisms need to be shaped, what resources expended, and what attitudes promoted to improve the lives of those infected and affected by AIDS. ■

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[1]Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report*, *2005,* vol. 17, http://www.cdc.gov/hiv/topics/surveillance/resources/reports/.

[2]W. J. Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (Chicago: The University of Chicago Press, 1987).

[3]S. Raphael, "The Socioeconomic Status of Black Males: The Increasing Importance of Incarceration," in *Poverty, the Distribution of Income, and Public Policy*, ed. A. Auerbach, D. Card, and J. Quigley (New York: Russell Sage Foundation, forthcoming); A. Adimora and V. Schoenbach, "Social Context, Sexual Networks, and Racial Disparities in Rates of Sexually Transmitted Infections," *Journal of Infectious Diseases* 191(S1) (2005): 115–22.

[4]These investigations are discussed at length in Johnson and Raphael, "The Effects of Male Incarceration Dynamics on AIDS Infection Rates" (see box, p. 33).

[5]E. Yelin, R. Greenblatt, H. Hollander, and J. McMaster, "The Impact of HIV-Related Illness on Employment," *American Journal of Public Health* 81, no. 1 (1991): 79–84; see also D. Ezzy, R. DeVisser, and M. Bartos, "Poverty, Disease Progression and Employment among People Living with HIV/AIDS in Australia," *AIDS Care* 11, no. 4 (1999): 405–14.

[6]S. Nixon and R. Renwick, "Experiences of Contemplating Returning to Work for People Living with HIV/AIDS," *Qualitative Health Research* 13, no. 9 (2003): 1272–90.

[7]M. Massagli, J. Weissman, G. Seage III, and A. Epstein, "Correlates of Employment after AIDS diagnosis in the Boston Health Study," *American Journal of Public Health* 84, no. 12 (1994): 1976–81.

[8]J. Crane, K. Quirk, and A. van der Straten, "'Come Back When You're Dying': The Commodification of AIDS among California's Urban Poor," *Social Science and Medicine* 55, no. 7 (2002): 1115–27.

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