
IN THE DISTRICT OF COLUMBIA (DC), the human immunodeficiency virus (HIV) case rate is nearly 10 times the U.S. rate and higher than comparable U.S. cities, such as Baltimore, Philadelphia, New York City, Detroit, and Chicago. In June 2006, the DC Department of Health (DCDOH) began implementing CDC’s 2006 recommendations for routine, voluntary HIV screening in health-care settings. To describe recent trends in HIV disease and testing, CDC and DCDOH analyzed DC HIV case surveillance data, HIV testing data, and data from the Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the results of that analysis, which indicated that the rate of newly diagnosed acquired immunodeficiency syndrome (AIDS) cases decreased consistently, from 164 cases per 100,000 in 2004 to 137 in 2007 and 107 in 2008. Among newly diagnosed AIDS cases, the number and rate were higher among blacks/African Americans compared with whites/Hispanics/Latinos. During 2005-2007, BRFSS results showed a significant increase in the proportion of the population that had been tested for HIV within the past 12 months, from 15% to 19%. Although the causes of the improvement in these indicators are unknown and cannot be linked to any specific intervention, they suggest improvements in the delivery of HIV testing and linkage to care services in DC. To address continuing racial disparities, DCDOH has increased HIV education and prevention efforts through enhanced collaborations, working with DC residents as spokespeople for local marketing campaigns and creating toolkits for health-care providers to expand HIV testing and linkage to care.

In 2006, CDC revised its HIV testing recommendations to include implementation of routine, voluntary HIV testing in health-care settings for all persons aged 13-64 years. To implement these recommendations, DCDOH engaged multiple community-based and clinical providers throughout DC to perform rapid HIV screening, launched extensive social marketing campaigns to educate DC residents and providers about routine HIV testing, and trained providers to facilitate immediate linkage to care among those testing HIV-positive.

To describe recent trends in HIV disease and testing in DC, DCDOH used several indicators, including (1) AIDS diagnoses, (2) the proportion of persons entering HIV care within 3 months of diagnosis, (3) client-level data on publicly funded HIV testing data, collected through the Program Evaluation and Monitoring System (PEMS), and (4) the prevalence of self-reported HIV testing among participants in the 2005 and 2007 BRFSS. AIDS diagnosis currently is the best indicator for the status of the HIV epidemic in DC. Since 1981, DCDOH has required that all laboratories and health-care providers report confirmed cases of AIDS by name, including HIV-related laboratory data and clinical diagnostic information. In 2001, DC added code-based HIV reporting. Only in November 2006 did DC begin integrated, confidential, named-based HIV and AIDS reporting, and no name-based HIV diagnosis data are yet available.

DCDOH used HIV case surveillance data for residents of DC reported to DCDOH through December 31, 2009, to determine the number and percentage of adolescents and adults aged >12 years newly diagnosed with AIDS during 2004-2008, overall and by race/ethnicity (black/African American, Hispanic/Latino, and white) and sex. Data are reported through 2008, the most recent year for which data are available, and are not adjusted for reporting delays. Cell sizes of five or fewer persons were not reported in accordance with DCDOH practice. Rates were calculated using DC population estimates from U.S. Census data. Estimated annual percentage changes (EAPCs) in new AIDS diagnoses were calculated using Poisson regression, with p<0.05 indicating significance.

The proportion of cases that had a CD4 count within 3 months of a new HIV diagnosis was used as an indicator of entry to HIV care. Since the start of AIDS reporting, DCDOH has received laboratory reports of CD4+ cell counts, and in more recent years, HIV viral load tests, and has matched these reports to HIV case surveillance data. In accordance with national recommendations, DCDOH recommends that the first visit to a health-care provider be within 3 months of HIV diagnosis.

DCDOH used client-level data on publicly funded HIV testing data, collected through the Program Evaluation and Monitoring System (PEMS), to calculate the number and percentage of tests conducted during 2004-2008 by race/ethnicity and year of test. These tests are paid for by CDC and administered throughout DC at both medical and nonmedical sites. Data are collected on all persons tested, inclusive of client demographics, testing site, HIV test results, and referrals. In addition, data from the 2005 and 2007 BRFSS, a telephone survey on health behaviors among DC residents, were analyzed to evaluate the impact of increased testing efforts at a population level; sampling-weighted frequencies and percentages were used to describe testing by race/ethnicity. Logistic regression was performed to evaluate the difference in proportions in 2005 compared...
Blacks/African Americans are disproportionately affected by the HIV epidemic in the District of Columbia (DC).

What is added by this report?
Starting in 2006, the DC Department of Health expanded HIV testing and linkage to care by increasing education and social marketing efforts with local health-care providers; by 2008, increases were observed in DC residents who were tested for HIV within the past 12 months, and fewer AIDS diagnoses occurred over time.

What are the implications for public health practice?
Increased prevention efforts with social marketing and HIV education, as well as expanded HIV testing and linkage to care, might counter this epidemic and decrease racial/ethnic HIV disease disparities in DC.

CDC Editorial Note: This report indicates several favorable trends in indicators of the HIV epidemic in DC for 2004-2008. Although an analysis such as the one presented in this report cannot definitively link trends to specific interventions, these trends might be related to a comprehensive prevention, care, and treatment portfolio implemented by DCDOH in 2006 to address the HIV epidemic. In addition, in June 2006 (in anticipation of the September 2006 publication of CDC's recommendations for routine HIV screening in health-care settings), DCDOH launched a citywide initiative to increase HIV testing and treatment programs. After the interventions, more than a threefold increase occurred in the number of publicly funded HIV tests conducted by community-based and clinical providers, and a 26% increase occurred in the proportion of persons who had been tested within the past 12 months.

Other favorable trends occurred during 2004-2008. DC residents with HIV had small but statistically significant increases in CD4 counts within 3 months of diagnosis, suggesting improvements in early linkage to care. Also, fewer AIDS diagnoses occurred over time. Like the other favorable trends, these cannot be attributed definitively to specific interventions, but they might indicate some success in DCDOH efforts to engage local providers through increased HIV education and social marketing campaigns. Only a minimal increase occurred in the proportion of newly diagnosed HIV-infected persons being linked to care within 3 months of diagnosis. Efforts are ongoing to improve community and clinical linkages that promote HIV care and treatment and support appointments being made within 72 hours of a new HIV diagnosis. Also, a recent analysis indicated that during 2004-2008, HIV-infected DC residents were being diagnosed at earlier stages of HIV disease, as indicated by higher CD4 counts at diagnosis and a decreasing proportion of late testers (i.e., HIV diagnosis occurring within 12 months of AIDS diagnosis) among AIDS cases.

The burden of disease among blacks/African Americans in DC is especially high. In 2008, blacks/African Americans represented 55% of DC’s population, but accounted for 78% of those living with HIV infection and 86% of newly diagnosed AIDS cases (1). The HIV prevalence among blacks/African Americans in DC was 4.7%. The findings in this report are subject to at least four limitations. First, DC transitioned from a code-based system of reporting HIV cases to confidential, name-based reporting in late 2006. DCDOH estimates that 5% of the cases reported before 2006 were duplicate cases. Second, delays in HIV and AIDS case reporting have been observed in DC. DCDOH expects that the number of cases diagnosed in 2008 will continue to increase as new reports of cases are received. Third, HIV testing data reflect the
number of tests conducted and cannot be used to infer the number of persons tested in DC, because a person could be tested more than once in a single year. Finally, sampling bias is possible with BRFSS data because it is a telephone survey and the sampling frame includes only those adults with landline telephones; the growing population of persons with only cellular telephones has not yet been sampled through BRFSS in DC.

Research exploring sociodemographic factors in areas of high AIDS and high poverty rates in DC, which occur disproportionately among blacks/African Americans, suggest that lack of knowledge of one's HIV status and partners' HIV status, and missed opportunities to diagnose HIV in routine clinical settings, are contributing factors to the HIV epidemic among blacks/African Americans in DC. This report suggests that ongoing and increased HIV testing and efforts to ensure linkage to care are warranted.

REFERENCES


3. CDC. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. MMWR. 2006;55(RR-14).


* Newly diagnosed cases are those that have not been previously reported to the DDCHD HIV/AIDS surveillance system. They do not necessarily reflect newly infected or incident cases of HIV infection.

† Available at http://www.census.gov/popest/estbygeo.html.

‡ Lower CD4 counts indicate more immune suppression and potentially more advanced HIV disease, with a CD4 count <200 cells/µL indicating advanced HIV disease. CD4 counts and viral load tests typically are only conducted after an HIV diagnosis has been made, and a patient begins seeing a health-care provider for HIV care.

§ The CASRO response rate is the percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted. The cooperation rate is the percentage of persons who completed interviews among all eligible persons who were contacted. The BRFSS cooperation rate is an outcome rate with the number of completer in the numerator and the number of eligible respondents who are capable of completing the survey in the denominator. Question asked for BRFSS 2005 and 2007: “Have you ever been tested for HIV?”

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The prevalence of human immunodeficiency virus (HIV) infection among incarcerated persons in the United States (1.5%) is approximately four times greater than the prevalence among persons in community settings (0.4%). In 2006, CDC recommended HIV testing in correctional facilities and elsewhere as part of routine medical evaluation. However, jail-based testing can be difficult logistically because of rapid turnover among detainees. In 2009, the Rhode Island Department of Corrections (RIDOC) reviewed its HIV testing program to assess HIV case identification, characterize HIV risk factors, and estimate the proportion of detainees who might not have been tested if testing had been delayed. RIDOC reviewed records of HIV testing of jail detainees during 2000-2007. During this period, 102,229 HIV tests were administered (representing an estimated 40,000-60,000 unique jail detainees), and HIV infection was newly diagnosed in 169 detainees, including 80 (48%) with unknown HIV risk factors. HIV testing was completed within 24 hours of jail admission. If HIV testing had been delayed for 7 days, 72 detainees (43%) would have been released before they could be tested, resulting in a delay in their HIV diagnosis and care, and continued risk for HIV transmission. To maximize case identification, all detainees should be offered voluntary HIV testing early in their incarceration as part of the first clinical evaluation, regardless of reported risk factors.

RIDOC is a unified state correctional system with six facilities for males and two for females. All pretrial detainees and all sentenced offenders (regardless of sentence length or crime) first pass through a centralized state jail that processes approximately 17,000 detainees each year. At any given time, the total inmate population in the RIDOC system is approximately 3,000-3,500, including 1,100 housed in the jail. Since 1991, the jail routinely has offered HIV testing to every person admitted as part of the initial medical evaluation conducted within 24 hours of admission. The RIDOC testing program uses a conventional laboratory-based HIV enzyme immunoassay (EIA) with Western blot confirmatory testing on blood specimens. HIV testing is voluntary (opt-out), and informed consent is obtained to conduct HIV counseling and testing. HIV test results are available in 7-14 days, and persons with confirmed HIV-positive result who remain incarcerated are notified by the RIDOC HIV clinical nurse. All persons with confirmed HIV infection receive prevention counseling at RIDOC, referral to specialized HIV care within the correctional facility, and linkage to...