
MMWR. 2000;49:4-11

2 tables, 1 figure omitted

In the United States, racial/ethnic minority populations account for an increasing proportion of acquired immunodeficiency syndrome (AIDS) cases, including cases among men who have sex with men (MSM). This report presents recent trends in AIDS incidence and deaths among MSM who belong to racial/ethnic minority populations, and compares data on human immunodeficiency virus (HIV) diagnoses with AIDS diagnoses during 1996-1998 among racial/ethnic minority MSM in the 25 states† that have conducted confidential HIV surveillance and AIDS case surveillance since 1994. The findings indicate that among MSM, non-Hispanic black and Hispanic men accounted for an increasing proportion of AIDS cases and had smaller proportionate declines in AIDS incidence and deaths from 1996 to 1998. Of HIV and AIDS diagnoses among racial/ethnic minority MSM, the proportion who are young (aged 13-24 years) is higher than among white MSM.

Trends in AIDS incidence during 1989-1998 among MSM aged ≥13 years from the 50 states, the District of Columbia, and U.S. territories were analyzed by race/ethnicity, age, and geographic area of residence. During 1996-1998, AIDS incidence per 100,000 population was calculated using race/ethnicity-specific Bureau of the Census estimates of males aged ≥13 years for the corresponding years. The number of HIV infection and AIDS diagnoses and deaths among persons with AIDS was adjusted for reporting delays on the basis of cases reported to CDC through June 30, 1999, and for the anticipated reclassification of cases initially reported without HIV-infection risk-exposure data. Trends examined were from 1989 through 1998 and from 1996 through 1998, the period of highly active antiretroviral therapy (HAART). During 1996-1998, for the 25 states with confidential HIV surveillance, age and race/ethnicity of MSM whose disease status was HIV infection (not AIDS) when initially diagnosed were compared with MSM who had AIDS-defining conditions when first diagnosed.

Characteristics of MSM With AIDS

During 1996-1998, 64,685 MSM were diagnosed with AIDS; 31,866 (49%) were racial/ethnic minority MSM. Among this group, 1492 (5%) were aged 13-24 years and 4498 (14%) were aged 25-29 years, compared with 2% and 9%, respectively, of white MSM in those age categories. Metropolitan statistical areas (MSAs) of ≥500,000 population accounted for 27,097 (85%) AIDS cases in racial/ethnic minority MSM. The AIDS incidence in MSM per 100,000 adult male population decreased 32% from 1996 to 1998; rates were highest for black MSM in all years.

The five MSAs that accounted for the largest number of racial/ethnic minority MSM with AIDS during 1996-1998 were New York, 3673 (12%); Los Angeles, 2811 (9%); Miami, 1554 (5%); Washington, DC, 1251 (4%); and Chicago, 1075 (3%). New York and Los Angeles had the largest number of AIDS cases among non-Hispanic black and Hispanic MSM, respectively. Los Angeles and Phoenix were the MSAs with the largest number of AIDS cases among Asian/Pacific Islander (A/PI) and American Indian/Alaska Native (AI/AN) MSM, respectively, compared with New York for white MSM.

Trends in AIDS Incidence and Deaths Among MSM With AIDS

During 1989-1998, AIDS was diagnosed in 290,582 MSM. In 1989, racial/ethnic minority MSM accounted for 24,444 (31%) AIDS cases among MSM, and by 1998, racial/ethnic minority MSM accounted for 18,153 (52%) AIDS cases among MSM. The proportion of MSM with AIDS who were non-Hispanic black and Hispanic increased from 19% and 12%, respectively, in 1989, to 33% and 18%, respectively, in 1998. A/PI and AI/AN each accounted for <2% of AIDS cases among MSM throughout this period.

AIDS incidence among all MSM declined 22% from 1996 to 1997. The rate of decline slowed to 12% in 1998 compared with 1997. During 1996-1998, AIDS incidence declined among MSM in all racial/ethnic groups: A/PI (4%), non-Hispanic white (39%), AI/AN (35%), Hispanic (26%), and non-Hispanic black (23%). Overall, the proportionate declines in AIDS incidence from 1997 to 1998 were smaller than those from 1996 to 1997. From 1997 to 1998, AIDS incidence declined 4% among AI/AN, 17% among A/PI, 15% among non-Hispanic white, 10% among non-Hispanic black, and 9% among Hispanic MSM.

Deaths among all MSM with AIDS declined 4% from 1996 to 1997. The rate of decline slowed to 23% in 1998 compared with 1997. From 1996 to 1998, AIDS deaths declined among all racial/ethnic minority: A/PI (69%), non-Hispanic white (65%), AI/AN (63%), Hispanic (60%), and non-Hispanic black (53%). From 1997 to 1998, AIDS deaths declined 38% among AI/AN, 37% among A/PI, 24% among non-Hispanic white, 22% among Hispanic, and 21% among non-Hispanic black MSM.

HIV and AIDS Diagnoses Among MSM in 25 Areas With HIV/AIDS Surveillance

During 1996-1998, HIV infection or AIDS was diagnosed in 23,680 MSM in 25 areas with HIV/AIDS surveillance.
25 states with HIV reporting: 11,313 (48%) were racial/ethnic minority MSM: 9497 (40%) non-Hispanic black, 1551 (7%) Hispanic, 113 (<1%) A/PI, and 152 (<1%) AI/AN. Among MSM whose initial diagnosis was HIV infection, the proportion aged 13-24 years varied by race/ethnicity: 16% non-Hispanic black, 15% A/PI, 15% AI/AN, 13% Hispanic, and 9% non-Hispanic white. Among MSM whose initial diagnosis was AIDS, the proportion aged 13-24 years also varied by race/ethnicity: 6% Hispanic, 6% A/PI, 5% non-Hispanic black, 1% non-Hispanic white, and <1% AI/AN.

Reported by: State and territorial health departments; Div of HIV/AIDS Prevention-Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention; and an EIS Officer, CDC.

CDC Editorial Note: These HIV/AIDS surveillance data highlight the importance of increased efforts to promote HIV prevention and treatment services in racial/ethnic minority communities, particularly among non-Hispanic black and Hispanic MSM. These groups had higher AIDS rates and the smallest proportionate decreases in AIDS incidence. The annual number of AIDS cases remains high, although AIDS incidence and deaths have declined among racial/ethnic minority MSM. These declines reflect the beneficial impact of HIV prevention programs, HAART, and opportunistic infection prophylaxis. Young non-Hispanic black and Hispanic MSM remain at high risk for HIV infection as indicated by higher proportions of AIDS and HIV cases among non-Hispanic black and Hispanic MSM aged 13-24 years compared with white MSM.

The disproportionate impact of HIV/AIDS on racial/ethnic minority MSM indicated in this report is probably a minimum estimate. The use of all men aged ≥13 years as a denominator (instead of MSM) results in an underestimate of the rate among MSM. Small numbers of cases among A/PI and AI/AN MSM limit the ability to assess trends, although in some locations A/PI and AI/AN MSM might be at substantial risk. HIV/AIDS surveillance data also may underestimate cases among racial/ethnic minorities because of misclassified race/ethnicity in medical records, which is greatest among AI/AN, A/PI, and Hispanic groups. States that conduct HIV reporting are not representative of the geographic regions with large Hispanic populations. Race/ethnicity itself is not a risk factor for HIV infection; however, among racial/ethnic minority MSM, social and economic factors, such as homophobia, high rates of poverty and unemployment, and lack of access to health care, are associated with high rates of HIV risk behavior. These factors also may be barriers to receiving HIV prevention information or accessing HIV testing, diagnosis, and treatment.

Characteristics of persons in whom HIV infection (without AIDS) is diagnosed reflect more recent trends in the epidemic than do characteristics of persons with AIDS. In states with confidential HIV surveillance, a larger proportion of racial/ethnic minority MSM were young (aged 13-24 years) when first diagnosed with HIV infection (without AIDS) compared with white MSM, suggesting that racial/ethnic minority MSM may become infected at younger ages compared with white MSM. Trends in AIDS incidence and deaths are affected now by HIV incidence and by HAART; pre-HAART diagnoses of AIDS were not as substantially affected by treatment. HIV case reports may reflect targeted testing patterns in at-risk populations or differences in test-seeking behavior. However, the increased proportion of racial/ethnic minority MSM among MSM with AIDS and the trends in HIV infection diagnoses, particularly among non-Hispanic black men, are consistent with data from seroprevalence and incidence studies among MSM, which document the high risk for HIV infection among young racial/ethnic minority MSM. Together with AIDS data, HIV data highlight the extent of the need for prevention and treatment to reduce HIV-related morbidity and mortality in this population.

To reduce infection rates and improve the likelihood of survival, prevention programs for racial/ethnic minority MSM need to focus on both HIV-infected and uninfected populations. Challenges to the design and implementation of HIV prevention programs among racial/ethnic minority MSM include reaching MSM who may not identify themselves as homosexual or bisexual, recognizing the importance of representing racial/ethnic minority MSM in HIV prevention planning, addressing language barriers, and improving access to HIV testing and health care. Within racial/ethnic minority communities, the stigma attached to acknowledging homosexual and bisexual activity may inhibit racial/ethnic minority MSM from identifying themselves as homosexual or bisexual, and they may be more likely to identify with their racial/ethnic minority community than with the MSM community. In a CDC-sponsored study of 8780 MSM with HIV infection or AIDS, 24% of non-Hispanic black MSM, 15% of Hispanic MSM, and 11% of A/PI MSM identified themselves as heterosexual compared with 7% of AI/AN and 6% of non-Hispanic white MSM (CDC, unpublished data, 1999). Racial/ethnic minority community leaders should promote dialogue about issues of sexual orientation to overcome social barriers to HIV prevention for racial/ethnic minority MSM, especially among young men.

MSM remain a population at high risk for HIV infection, and continued efforts to promote behavioral risk reduction among at-risk youth are needed. Serologic surveys, HIV/AIDS case surveillance, and supplemental research and evaluation studies of racial/ethnic minority MSM and other HIV-infected and at-risk populations are needed to target intervention programs. In 1999, CDC funded a special program to enhance HIV prevention services for racial/ethnic minority MSM. CDC and other federal agencies are collaborating to facilitate links between prevention and treatment services for infected and at-risk populations.

©2000 American Medical Association. All rights reserved.
The introduction of West Nile (WN) virus infection—United States

MMWR. 2000;49:25-28

The introduction of West Nile (WN) virus in the northeastern United States during the summer and fall of 1999 raised the issue of preparedness of public health agencies to handle sporadic and outbreak-associated vectorborne diseases. In many local and state health departments, vectorborne disease capacity has diminished. Because it is unknown whether the virus can persist over the winter, whether it has already or will spread to new geographic locations, and the public health and animal health implications of this introduction, it is important to establish proactive laboratory-based surveillance and prevention and control programs to limit the impact of the virus in the United States. On November 8 and 9, 1999, CDC and the U.S. Department of Agriculture (USDA) cosponsored a meeting of experts representing a wide range of disciplines to review the outbreak and to provide input and guidance on the programs that should be developed to monitor WN virus activity and to prevent future outbreaks of disease. This report summarizes the guidelines established during this meeting.

Surveillance

Because of bird migration patterns, enhanced surveillance is a priority in those states already affected or having a potential for being affected, including areas from Massachusetts to Texas along the Atlantic and Gulf coasts. Active surveillance activities should be implemented through the winter in southern states where mosquito activity continues throughout the year, or implemented early in the spring in northern states where mosquito activity ceased with the onset of cold weather. Surveillance activities that should be emphasized in the catchment area include the following:

1. Active bird surveillance to detect the presence of and to monitor WN virus activity in both wild and sentinel bird populations. In particular, surveillance for dead crows may be a sensitive means to detect the presence of WN virus in an area.
2. Active mosquito surveillance to detect and monitor WN virus activity in mosquito populations and to help identify potential vectors.
3. Enhanced passive human surveillance by general alerts to veterinarians for reporting neurologic illness in animals, with emphasis on horses as a backup system to monitor the extent of WN virus transmission outside the bird-mosquito cycle.
4. Enhanced passive human surveillance by general alerts to health-care providers to report viral encephalitis and, if resources permit, aseptic meningitis in humans.

Laboratory Diagnosis

Diagnosis of WN or other virus infections requires specialized laboratory diagnostic tests. Surveillance activities require the availability of laboratories that can provide the following minimal laboratory diagnostic support:

1. Serology. Using CDC and USDA protocols and reagents, the IgM and IgG enzyme-linked immunosorbent assay (ELISAs) for WN virus should be established in all state public health and veterinary laboratories to provide initial testing for human and animal specimens. State health, veterinary, and reference laboratories with biosafety level 3 facilities should have the capability to conduct neutralization tests to identify specific flavivirus antibodies.
2. Virus isolation and detection. Regional state public health laboratories and reference laboratories with biosafety level 3 facilities should have virus isolation and identification capabilities. Selected other laboratories also should have reverse transcriptase polymerase chain reaction (RT-PCR) capability to detect viral RNA. Antigen-capture ELISAs to detect WN and other arboviruses in mosquito pools should be developed and made available to state and local laboratories. Regional state public health and reference laboratories should have the capability to use immunohistochemistry to detect virus in autopsy tissues.

Prevention and Control

Mosquito control is the most effective way to prevent transmission of WN and other arboviruses to humans and other animals, or to control an ongoing outbreak. Mosquito-control methods should include the following:

1. Mosquito abatement districts. The most effective and economical way to control mosquitoes is by larval source reduction through locally funded abatement programs that monitor mosquito populations and initiate control before disease transmission occurs. These programs also can be used as the first line emergency response for mosquito control if disease is detected in humans or domestic animals.
2. Public outreach. Public education about vectorborne diseases, particularly about modes of transmission and means of preventing or reducing risk for exposure, is a critical component of a prevention and control program.

Public Health Infrastructure

Effective surveillance, prevention, and control of vectorborne diseases, including WN virus, require designated resources in local and state health departments. Few state and local health departments have trained personnel or the resources to address adequately vectorborne diseases. At a minimum, each state health department should have functional arbovirus surveillance and response capability, including entomology and laboratory support. Geographic
location and risk for WN transmission will determine the extent of a state’s capability to handle arboviral diseases.

Interjurisdictional Data Sharing
WN fever is a zoonosis that affects numerous animal species, including humans. Effective surveillance and response will require coordination and data exchange between federal, state, and local agencies including departments of health, agriculture, and wildlife. A system of secure e-mail list servers and/or World-Wide Web sites will be necessary to facilitate the rapid and efficient exchange of data and other information between authorized users.

Research Priorities
Targets of applied research include understanding how and why the 1999 WN virus epidemic occurred, the public health and animal health implications of this introduction to the Western Hemisphere, and developing effective prevention strategies. High-priority research topics include defining current and future geographic distribution; bird migration as a mechanism of virus dispersal; vector relations and range; vertebrate host relations and range; virus persistence mechanisms; mosquito biology and behavior; mosquito control methods; mosquito surveillance methods; developing and evaluating disease prevention strategies; improving laboratory diagnostic tests; clinical spectrum of WN virus illness and long-term prognosis in humans; determining risk factors in enzootic areas; viral pathogenesis; genetic relations and the molecular basis of virulence; WN virus vaccine development for animals and humans; antiviral therapy for flaviviruses; and economic impact of the northeastern outbreak.

Reported by: Animal, Plant, and Health Inspection Svcs, US Department of Agriculture. Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.

CDC Editorial Note: The 1999 WN virus epidemic in the New York City (NYC) metropolitan area resulted in 61 human cases (55 confirmed and six probable), including seven deaths.1-3 Exotic zoo birds, American crows, and horses also were affected and had high death rates. In addition to NYC, epidemic/epizootic transmission was detected in surrounding New York counties. Emergency surveillance programs detected epizootic transmission in New Jersey and Connecticut but no cases in humans.

The surveillance and laboratory efforts required from NYC, surrounding counties, and adjacent states consumed considerable resources and demonstrated a need to enhance state and local health department programs to combat vector-borne infectious diseases. In December 1999, CDC announced the availability of fiscal year 2000 supplemental funds to support WN virus surveillance, prevention, and control projects. The 19 state and local health departments eligible to apply for these funds represent those areas where WN virus transmission already has occurred or where transmission will be more likely to occur based on bird migration patterns.

The focus of these cooperative agreements enables state and local health departments to increase surveillance activities and enhance laboratory capacity for detecting WN and other arboviruses. In the initial year, surveillance activities will be focused to determine whether WN virus survived the winter and, if so, to ascertain its geographic distribution along the Atlantic and Gulf coasts.

REFERENCES
7 available
*Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, North Carolina, New Jersey, New York, New York City, Pennsylvania, Rhode Island, South Carolina, Texas, and Virginia. In the proportion aged 13-24 years varied by race/ethnicity: 16% non-Hispanic black, 15% A/PI, 15% A/AN, 13% Hispanic, and 9% non-Hispanic white. Among MSM whose initial diagnosis was AIDS, the proportion aged 13-24 years also varied by race/ethnicity: 6% Hispanic, 6% A/PI, 5% non-Hispanic black, 1% non-Hispanic white, and <1% A/AN.

Update: Penicillin G Availability
MMWR. 2000;49:61

References to sites of non-CDC organizations on the Internet are provided as a service to MMWR readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services.

©2000 American Medical Association. All rights reserved.

1. CDC. Shortage of intravenous penicillin G—United States. MMWR 1999;48:974.