



# MMWR™

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### National Black HIV/AIDS Awareness Day — February 7, 2009

February 7 is National Black HIV/AIDS Awareness Day, which seeks to increase awareness of the disproportionate effects of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) among blacks living in the United States. In 2006, blacks accounted for approximately 12% of the adolescent and adult U.S. population but 46.1% of the number estimated to be living with HIV (1). For 2006, estimates of HIV incidence show that blacks had the highest rates of new infections (115.7 per 100,000 population for males and 55.7 per 100,000 population for females) of any racial/ethnic population (2). Among black females, high-risk heterosexual contact accounted for 83% of the new infections. Among black males, male-to-male sexual contact accounted for 63% of the new infections (3).

In 2006, a higher percentage of blacks reported having been tested for HIV during the preceding 12 months than did Hispanics and whites (22% versus 13% and 8%, respectively) (4). Nonetheless, HIV testing should be promoted and increased among blacks because persons who are aware of their HIV infection are less likely to transmit it to others.

Information regarding National Black HIV/AIDS Awareness Day is available at <http://www.cdc.gov/features/blackhivaidsawareness>. Information regarding blacks and HIV/AIDS is available at <http://www.cdc.gov/hiv/topics/aa/index.htm>.

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### HIV Infection Among Young Black Men Who Have Sex with Men — Jackson, Mississippi, 2006–2008

In the United States, black men who have sex with men (MSM) account for a disproportionate number of new cases of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) (1). From 2001 to 2006, the number of HIV/AIDS cases among black MSM aged 13–24 years in 33 states increased 93% (2). In 2006, more new AIDS cases among black MSM were diagnosed in the South\* than in all other U.S. census regions combined (3). In November 2007, the Mississippi State Department of Health (MSDH) reported to CDC an increase in the number of young black MSM who received diagnoses of HIV infection at a sexually transmitted disease (STD) clinic in Jackson, Mississippi. MSDH and CDC conducted a survey of 29 young black MSM in the three-county Jackson area who received diagnoses of HIV infection during January 2006–April 2008 to characterize risk behavior and HIV testing behavior. This report summarizes the results of that survey, which found that, during the 12 months before receiving their HIV infection diagnosis, 20 (69%) of the 29 participants had unprotected anal intercourse, but only

\* Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

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three (10%) of the 29 thought they were likely or very likely to acquire HIV infection in their lifetimes. Additional investigations are needed to determine whether this sample is illustrative of other groups of black MSM at high risk for HIV infection, especially in the South. Targeted interventions that decrease HIV risk behaviors among black MSM should be developed, implemented, and evaluated to reduce HIV transmission.

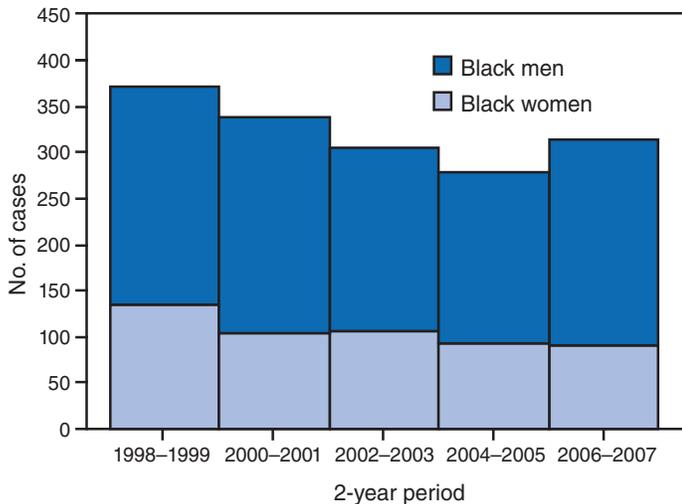
Mandatory, confidential, name-based HIV case surveillance has been conducted in Mississippi using the HIV/AIDS Reporting System since 1988; cases of confirmed HIV infection are reported to state surveillance staff members, who then enter information about patient demographics, HIV risk behavior, laboratory results, and clinical status into the reporting system. After an increase in new HIV cases among young black MSM was noted by clinicians at an STD clinic in Jackson in November 2007, a review of HIV surveillance data was conducted. This review indicated that the number of newly diagnosed HIV cases among all black men in the Jackson area (Hinds, Madison, and Rankin counties) increased 20%, from 185 during 2004–2005 to 222 during 2006–2007 (Figure 1). Among black MSM aged 17–25 years in the Jackson area, the number of HIV cases increased from 22 to 32 (45%) during the same period (Figure 2).

To characterize risk behavior and HIV testing behavior among HIV-infected young black MSM, during February–April 2008, MSDH and CDC first identified all black males aged 16–25 years who had received diagnoses of HIV infection during January 2006–April 2008 and who lived in, or received their diagnosis in, the three-county Jackson area. These potential participants were identified by state surveillance staff members using the HIV/AIDS Reporting System and recruited for the survey by telephone, mail, or in person. Participation was voluntary; persons who completed the survey received a \$25 gift card. Surveys were completed on a computer questionnaire at the STD clinic or, in some cases, at a location convenient to participants. The survey was self-administered; participants read the questions on the screen of a laptop or handheld computer and marked their answers. The survey included questions on sexual identity and behavior, condom use, HIV testing, drug use, and perceived risk for HIV infection.<sup>†</sup> Analysis was limited to MSM (i.e., persons who self-identified as men who had ever had anal sex with a man).

A total of 86 potential participants were identified initially. Of these, 40 (47%) were located and interviewed. Of the 46 not interviewed, 31 could not be contacted, three had moved from the area, one was deceased, one declined to participate, one did not arrive for the scheduled interview, and nine had

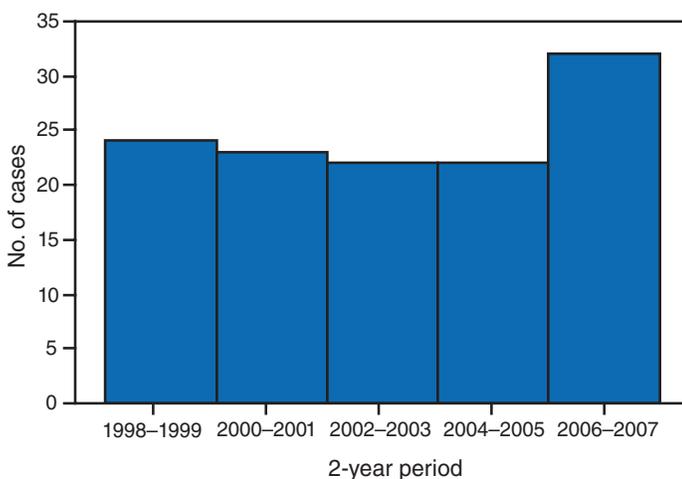
<sup>†</sup> Participants were asked, “At the time of your first positive HIV test, what did you think were your chances of getting HIV in your lifetime? Very unlikely, unlikely, equally likely and unlikely, likely, or very likely?”

**FIGURE 1. Number of newly diagnosed cases of human immunodeficiency virus (HIV) infection among black males and black females aged  $\geq 13$  years, by 2-year period — Jackson, Mississippi, area (Hinds, Madison, and Rankin counties), 1998–1999 to 2006–2007**



SOURCE: Mississippi HIV/AIDS Reporting System.

**FIGURE 2. Number of newly diagnosed cases of human immunodeficiency virus (HIV) infection among black men aged 17–25 years who have sex with men, by 2-year period — Jackson, Mississippi, area (Hinds, Madison, and Rankin counties), 1998–1999 to 2006–2007**



SOURCE: Mississippi HIV/AIDS Reporting System.

no recorded reason for not being interviewed. Of the 40 interviewed, 29 (73%) self-identified as MSM and were included in the analysis. Of the 11 persons not included, seven did not report ever having anal sex with a man, three responded “don’t know” or “refuse to answer” to a majority of the questions, and one self-identified as transgender.

Of the 29 black MSM surveyed, the median age at HIV diagnosis was 22 years (range: 17–25 years). A total of 19 men (66%) self-identified as gay/homosexual, seven (24%) as bisexual, two (7%) as straight/heterosexual, and one (3%) as questioning (Table). Twenty (69%) reported having unprotected anal intercourse with a male partner during the 12 months before their first positive HIV test, and 16 (55%) reported having male sex partners aged  $\geq 26$  years during that period. Of the 16 participants aged  $\leq 22$  years, nine (56%) reported having male sex partners aged  $\geq 26$  years. Twenty-six participants (three did not respond) reported a median of 3.5 male sex partners (range: 1–11) during the 12 months before their first positive HIV test. Three (10%) of the 29 surveyed reported having a female sex partner in the 12 months before receiving their HIV diagnoses, and 16 (55%) reported concurrent sexual relationships.<sup>§</sup>

Six (21%) of those surveyed reported having no HIV test during the 2 years before their first positive HIV test, and five (17%) reported having one test. At the time of their first positive HIV test, three of the 29 thought they were likely or very likely to acquire HIV infection during their lifetime; 15 (52%) thought acquiring HIV infection was unlikely or very unlikely (Table).

None of the 29 reported injection drug use in the 12 months before receiving their HIV diagnosis. Twelve (41%) reported using marijuana; three (10%) reported using ecstasy and/or powdered cocaine (Table).

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**Editorial Note:** This investigation identified multiple HIV risk and testing behaviors among a localized group of 29 young black MSM recently confirmed positive for HIV infection. Twenty of the young black MSM (69%) reported unprotected anal intercourse in the 12 months before HIV diagnosis, nearly double the percentage (38%) of black MSM aged 18–24 years who reported unprotected anal intercourse during the preceding 12 months in a large behavioral surveillance system survey conducted during 2004–2005 (National HIV Behavioral Surveillance System, CDC, unpublished data, 2009). In addition, 16 (55%) of the young black MSM

<sup>§</sup> Defined as reporting more than one sexual partner during the same week and/or answering “yes” to the question, “Was there ever a time (during the 12 months before your first positive HIV test) when you were sexually involved with one person and also had sex with one or more other partners?”

**TABLE. Selected characteristics of 29 black men aged 17–25 years who have sex with men and who were confirmed positive for human immunodeficiency virus (HIV) infection\* — Mississippi State Department of Health/CDC Investigation, Jackson, Mississippi, area (Hinds, Madison, and Rankin counties), 2006–2008**

Characteristic	No.	(%)†
<b>Sexual identity and behavior</b>		
Self-reported sexual identity at time of first positive HIV test		
Gay/homosexual	19	(66)
Bisexual	7	(24)
Straight/heterosexual	2	(7)
Questioning	1	(3)
No. of male sex partners during 12 months before first positive HIV test		
1	6	(21)
2	3	(10)
3–5	10	(34)
≥6	7	(24)
Missing response	3	(10)
Any male partner aged ≥26 years during 12 months before first positive HIV test?		
Yes	16	(55)
No	10	(34)
Missing response	3	(10)
Any concurrent sexual relationship during 12 months before first positive HIV test?§		
Yes	16	(55)
No	13	(45)
Any unprotected anal intercourse during 12 months before first positive HIV test?		
Yes	20	(69)
No	6	(20)
Missing response	3	(10)
Any female partner during 12 months before first positive HIV test?		
Yes	3	(10)
No	26	(90)
<b>HIV testing and risk</b>		
No. of HIV tests during 2 years before first positive HIV test		
0	6	(21)
1	5	(17)
2–3	7	(24)
≥4	11	(38)
Self-perceived lifetime risk for HIV at time of diagnosis		
Unlikely or very unlikely	15	(52)
Equally likely and unlikely	11	(38)
Likely or very likely	3	(10)
<b>Drug use</b>		
Use of marijuana during 12 months before first positive HIV test?		
Yes	12	(41)
No	17	(59)
Use of another noninjection drug during 12 months before first positive HIV test?		
Yes¶	3	(10)
No	26	(90)

\* During January 2006–April 2008.

† Percentages might not sum to 100% because of rounding.

§ Defined as a “yes” response to either 1) two sex partners in the same week or 2) having sex with one person while sexually involved with another.

¶ Respondents reported using ecstasy and/or powdered cocaine.

reported having male sex partners aged ≥26 years. Having sex with partners who are older than themselves increases the risk for HIV infection among young black MSM (4).

The behaviors presented in this report are derived from a small number of participants in one area and might not represent the behaviors of young black MSM in other areas. However, a 2003 investigation of HIV infection among young black MSM in North Carolina also revealed high prevalence of HIV risk behaviors (5). The findings in this report might be illustrative of behaviors contributing to HIV acquisition, particularly in the South. Further research is needed to understand behaviors and other factors associated with the increasing numbers of HIV infections among black MSM in the South and elsewhere in the United States.

Eleven (38%) of those surveyed reported having no HIV test or only one HIV test during the 2 years before HIV diagnosis. Current CDC guidelines recommend HIV testing at least once each year for sexually active MSM (6). Although young black MSM are more likely to be HIV infected than MSM of other racial/ethnic groups, they are less likely to know that they are infected (7). Among persons who are HIV infected, being aware of one’s HIV diagnosis has been associated with a reduction in risk behaviors (8). Increasing the number of young black MSM who are aware of their HIV infection might reduce transmission.

Although many interventions that aim to reduce risk behavior have been developed and studied, few are known to be effective among young black MSM.¶ CDC currently disseminates two HIV prevention interventions specifically developed for black MSM.\*\* Further research must address reducing unprotected anal intercourse, understanding risks related to partner selection and sexual networks, and improving HIV testing rates.

The findings in this report are subject to at least two limitations. First, the survey asked about behaviors in the 12 months before HIV diagnosis, a period more than 2 years before the interview for 11 (38%) of those surveyed, who received their HIV diagnoses in 2006. These persons might have had poorer recall of risk behavior than those who received HIV diagnoses more recently. Second, the findings might not be representative of all HIV-infected young black MSM in the Jackson area because the sample size was small and 53% of the potential participants who were initially identified were not interviewed, primarily because they could not be located.

Reducing HIV transmission among young black MSM is challenging because of many factors, including sexual network patterns, sexual partnering with older men, high prevalence

¶ Additional information available at <http://www.cdc.gov/hiv/topics/research/prs/evidence-based-interventions.htm>.

\*\*Additional information available at <http://www.effectiveinterventions.org>.

of STDs, lack of awareness of one's HIV status, homophobia, HIV-related stigma and discrimination, and socioeconomic issues. CDC's Heightened National Response to the HIV/AIDS Crisis among African Americans aims to reduce HIV/AIDS in this population by expanding the reach of prevention services, increasing opportunities for diagnosis and treatment, developing new prevention interventions,<sup>††</sup> and mobilizing broader community action.<sup>§§</sup> In the United States, reducing the toll of HIV/AIDS on young black MSM will require a combination of strategies, including culturally specific behavioral interventions, expanded testing programs, and comprehensive campaigns to combat stigma.

### Acknowledgments

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## Respiratory and Ocular Symptoms Among Employees of a Hotel Indoor Waterpark Resort — Ohio, 2007

During January–March 2007, the Warren County Combined Health District (WCCHD) received 665 reports of respiratory and eye irritation from patrons and lifeguards at a hotel indoor waterpark resort in Ohio. Tests revealed normal water chemistry and air chlorine concentrations, and exposure to airborne trichloramine in the waterpark was suspected as the cause of the symptoms. Because of the number of symptom reports and WCCHD's limited ability to measure trichloramine, the district requested an investigation by CDC's National Institute for Occupational Safety and Health (NIOSH). This report describes the results of that investigation, which revealed that trichloramine concentrations in the waterpark ranged from below the limit of detection to 1.06 mg/m<sup>3</sup>, and some concentrations were at levels that have been reported to cause irritation symptoms ( $\geq 0.5$  mg/m<sup>3</sup>) (1). Lifeguards reported significantly more work-related symptoms (e.g., cough, wheezing, shortness of breath, chest tightness, and eye irritation) than unexposed hotel employees. Lifeguards also reported significantly more eye irritation and cough on days when hotel occupancy was high versus low. Insufficient air movement and distribution likely led to accumulation of trichloramine and exacerbation of symptoms. Based on recommendations to increase air movement and distribution at pool deck level, hotel management modified the ventilation system extensively, and subsequently no new cases were reported to WCCHD. The results of this investigation emphasize the importance of appropriate design and monitoring of ventilation and water systems in preventing illness in indoor waterparks.

The indoor waterpark measures approximately 80,000 square feet and has a maximum occupancy of 3,746 persons. It contains 11 waterslides, two activity pools, two hot tubs, a wave pool, a leisure river, a four-story interactive play system, and several features that splash, spray, and aerate large amounts of water. Water flows by gravity through the main drains and gutter systems from the pool into designated surge tanks. The water is pumped out of the surge tanks and filtered. An automated chemical controller tests and adjusts the water's pH and chlorine concentration as needed by adding a sodium hypochlorite solution (to disinfect) and sulfuric acid (for pH).

The indoor waterpark opened in December 2006. Within 1 month, WCCHD had received 79 reports of eye and respiratory irritation from patrons and employees. Symptoms included red, burning, or itchy eyes; itchy or runny nose;

<sup>††</sup> Additional information available at <http://www.cdc.gov/hiv/topics/aa/resources/factsheets/pdf/aa.pdf>.

<sup>§§</sup> Additional information available at <http://www.cdc.gov/hiv/topics/aa/cdc.htm>.