

Morbidity and Mortality Weekly Report (MMWR) Update to Racial/Ethnic Disparities in Diagnoses of HIV/AIDS—33 States, 2001–2005

March 9, 2007 / 56(09);189–193

The June 2007 revision of the 2005 HIV/AIDS Surveillance Report includes revised and corrected data on estimated AIDS cases for the period 2001 to 2005. Errors in the numbers of estimated AIDS cases included in the original version of the report are corrected in the Commentary, Tables 1–6 and 8–12, Figure 1, and Maps 1 and 2 of the revised report. The errors did not affect reported cases of HIV or AIDS. The errors in the numbers also affected data used in the March 9, 2007, MMWR titled Racial/Ethnic Disparities in Diagnoses of HIV/AIDS—33 States, 2001–2005. Errors in the estimated number of cases in the original article are corrected in the revised MMWR text and Tables 1–3. Further information on the error made in the estimation of AIDS cases for 2001 to 2005 and the corrections made can be found at <http://www.cdc.gov/hiv/datarevision.htm>.

During 2001–2004, blacks* accounted for 51% of newly diagnosed human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) infections in the United States [1]. This report updates HIV/AIDS diagnoses during 2001–2005 among black adults and adolescents and other racial/ethnic populations reported to CDC through June 2006 by 33 states† that had used confidential, name-based reporting of HIV and AIDS cases since at least 2001. Of the estimated 184,170 adult and adolescent HIV infections diagnosed during 2001–2005, more (51%) occurred among blacks than among all other racial/ethnic populations combined. Most (62%) new HIV/AIDS diagnoses were among persons aged 25–44 years; in this age group,

blacks accounted for 48% of new HIV/AIDS diagnoses. New interventions and mobilization of the broader community are needed to reduce the disproportionate impact of HIV/AIDS on blacks in the United States.

For this report, cases of HIV or AIDS were analyzed together as HIV/AIDS (i.e., HIV infection with or without AIDS) and counted by year of diagnosis. Cases were classified according to the following transmission categories: 1) male-to-male sexual contact (i.e., among men who have sex with men [MSM]); 2) injection-drug use (IDU); 3) MSM with IDU; 4) high-risk heterosexual contact (i.e., with a person of the opposite sex known to be HIV infected or at high risk for HIV/AIDS [e.g., MSM or injection-drug user]); and 5) other (e.g., hemophilia or blood transfusion) and all risk factors not reported or not identified. The estimated number of HIV/AIDS diagnoses for each racial/ethnic population by transmission category and selected characteristic was calculated. For 2005, estimated diagnosis rates per 100,000 population were calculated for each racial/ethnic population, and rate ratios (RRs) comparing other populations with whites were

* For this report, persons identified as white, black, Asian/Pacific Islander, American Indian/Alaska Native, or of other/unknown race are all non-Hispanic. Persons identified as Hispanic might be of any race.

† Alabama, Alaska, Arizona, Arkansas, Colorado, Florida, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.



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determined. In addition, estimated HIV§ prevalence and AIDS¶ prevalence rates for blacks living with HIV or AIDS at the end of 2005 were calculated. Prevalence estimates were derived from reported cases and adjusted for delays in reporting and deaths [2].** Estimated HIV and AIDS prevalence rates per 100,000 population were calculated for each state and the District of Columbia (DC).

Although adult and adolescent blacks accounted for 13% of the population in the 33 states during 2001–2005 [3], they accounted for 50.5% of the 184,170 new HIV/AIDS diagnoses; whites accounted for 72% of the population and 29.3% of diagnoses, and Hispanics accounted for 13% of the population and 18.1% of diagnoses. Among racial/ethnic populations, blacks accounted for the largest percentages of cases diagnosed in both males (43.9%) and females (67.2%) (Table 1).

During 2001–2005, blacks had the largest percentage of HIV/AIDS diagnoses in all age groups and in the IDU and high-risk heterosexual transmission categories (Table 1). Among men and women with IDU and persons with high-risk heterosexual contact, more than half were black (men: 54.0% and 65.7%, respectively; women: 58.9% and 69.5%, respectively). More MSM with HIV/AIDS diagnoses were white (42.8%), with smaller proportions of blacks (36.1%) and Hispanics (19.0%).

During 2001–2005, adults aged 25–44 years accounted for a majority of HIV/AIDS diagnoses regardless of racial/ethnic population (Table 1). Among persons aged 25–34 and 35–44 years, blacks accounted for the greatest proportion of cases (48.0% and 47.4%, respectively). By region,†† blacks accounted for the majority of diagnoses in the South (54.4%) and Northeast (52.0%) (Table 1). Black males accounted for more new HIV/AIDS diagnoses than males of any other racial/ethnic population in the South (47.5%) and Northeast (46.0%). Among females, blacks accounted for the majority of HIV/AIDS diagnoses

in the South (71.5%), Northeast (64.3%), and Midwest (63.5%), compared with other racial/ethnic populations.

Among black males and females, the age distribution of persons who had HIV/AIDS diagnosed varied by transmission category (Table 2). By transmission category, most HIV/AIDS diagnoses of black male adults and adolescents were classified as MSM (29,814 [51.4%]), followed by high-risk heterosexual contact (14,686 [25.3%]), IDU (10,463 [18.0%]), MSM with IDU (2,715 [4.7%]), and other (323 [0.6%]). Most HIV/AIDS diagnoses among black female adults and adolescents were classified as high-risk heterosexual contact (28,114 [80.3%]), followed by IDU (6,438 [18.4%]), and other (467 [1.3%]) (Table 2).

In 2005, the estimated annual HIV/AIDS diagnosis rate among black males was 124.8 per 100,000 population and among black females was 60.2 per 100,000, both higher than the rates for all other racial/ethnic populations. Among males, the annual HIV/AIDS diagnosis black/white RR of 6.9 was higher than the Hispanic/white RR of 3.1.

§ Includes only persons living with HIV that had not progressed to AIDS. These data were reported by the 33 U.S. states with confidential, name-based HIV reporting since at least 2001. Because HIV can be diagnosed at any time in the disease spectrum, the time between HIV and AIDS diagnoses varies.

¶ Includes only persons living with AIDS. Cases were from the 50 U.S. states and the District of Columbia (DC). Because DC is not a state, caution should be exercised when comparing DC AIDS rates with those of the states.

** Reporting delays (i.e., time between diagnosis and report) can differ by geographic location, age, sex, transmission category, and racial/ethnic population. Adjustments for reporting time were calculated for HIV and AIDS cases using a maximum likelihood statistical procedure that accounts for differences in reporting time for the preceding characteristics while assuming the reporting delay has remained constant over time. Adjustments also were made for cases initially reported without transmission category information. Adjustments for adults and adolescents were based on the redistribution of cases across transmission categories by sex, race/ethnicity, and geographic region for cases diagnosed 3–10 years earlier and initially classified as reported without risk factor information but later reclassified.

†† Northeast: New Jersey and New York. Midwest: Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Florida, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.

Among females, the black/white RR was 20.1, and the Hispanic/white RR was 5.3.

In 2005, overall estimated HIV (i.e., without AIDS) and AIDS prevalences were higher among blacks than among all other racial/ethnic populations. Among blacks, the estimated HIV prevalence (in 33 states) was 518 per 100,000 population, ranging from 106 (Alaska) to 865 (New Jersey); the estimated AIDS prevalence (in the 50 states and DC) was 631 per 100,000 population and ranged from 79 (Wyoming) to 3,130 (DC) (Table 3).

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Editorial Note:

During 2001–2005, HIV/AIDS diagnoses, diagnosis rates, and RRs were higher among black males and females than among any other racial/ethnic population in the United States. In 2005, the annual rates of HIV/AIDS diagnosis among black men and women were seven and 20 times higher than rates among white men and women, respectively. For black men, sexual contact with men was the primary mode of HIV infection; for black women, high-risk heterosexual contact was the primary mode. In a recent study of MSM in five cities, 46% of blacks were infected with HIV, compared with 21% of whites and 17% of Hispanics [4]. In 2004, HIV/AIDS was the fourth-leading cause of death among blacks aged 25–44 years in the United States [5].

During 2001–2004, HIV diagnosis rates among black males and females declined by 4.4% and 6.8%, respectively [1]. A 2007 study reported similar declines among blacks in Florida [6]. These declines were observed among black heterosexuals and injection-drug users but not among MSM.

Although these declines in rates of new HIV diagnoses are encouraging, they might not directly reflect trends in HIV incidence because they are also affected by changes in testing behavior and surveillance practices. Regardless of the trends, blacks remain disproportionately affected by high rates of HIV/AIDS. Several factors might contribute to these higher rates (e.g., higher overall prevalence of infection and undiagnosed infection among MSM or greater likelihood among females of high-risk heterosexual contact) [7].

The findings in this report are subject to at least two limitations. First, the data were reported from states with confidential, name-based HIV/AIDS surveillance systems and are not necessarily representative of all persons in the United States testing positive for HIV. Diagnoses of HIV/AIDS from areas with historically high AIDS morbidity that do not conduct confidential, name-based surveillance (e.g., California, Illinois, and DC) were not included. However, the racial/ethnic disparities described in this report are similar to disparities observed among persons with AIDS from all 50 states [8]. Second, the findings might be affected by statistical adjustments made for reporting delays and for cases reported with no identified risk factor. Such cases were reclassified based on data obtained from follow-up investigations and were assumed to constitute a representative sample of all cases initially reported without a risk factor. However, this assumption might not be valid, potentially affecting the accuracy of the estimated distribution of cases by transmission category.

The high rate of infection among blacks highlights the need to scale up known, effective HIV-prevention interventions and to implement new, improved, and culturally appropriate HIV/AIDS strategies. CDC, along with public health partners and community leaders, is announcing its Heightened National Response to the HIV/AIDS Crisis among African Americans to reduce the toll of this disease. This response will focus on four main areas: 1) expanding the reach of prevention

services, including ensuring that federal prevention resources are expended where the need is greatest; 2) increasing opportunities for diagnosing and treating HIV, including encouraging more blacks to know their HIV serostatus; 3) developing new, effective, prevention interventions, including behavioral, social, and structural interventions; and 4) mobilizing broader action within communities to help change community perceptions about HIV/AIDS, to motivate blacks to seek early HIV diagnosis and treatment, and to encourage healthy behaviors and community norms that prevent the spread of HIV.

CDC will expand its partnerships with other federal agencies, state and local health departments, academic institutions, and community-based organizations to enhance research, policy, prevention services, testing, and linkage to care for blacks. CDC and public health partners will work with black faith, entertainment, media, civic, education, and business leaders and others who have not been historically involved in HIV prevention to address community awareness, perceptions, testing, and behavior. A collective response involving multiple sectors of society is required to reduce transmission of HIV/AIDS among blacks in the United States. Additional information regarding CDC's Heightened National Response to the HIV/AIDS Crisis among African Americans is available at the Heightened Response Web site at <http://www.cdc.gov/hiv/topics/aa>.

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TABLE 1. Estimated number and percentage of HIV/AIDS* diagnoses among adults and adolescents, by race/ethnicity and selected characteristics—33 states, 2001–2005†

Characteristics	White, non-Hispanic		Black, non-Hispanic		Hispanic		Asian/Pacific Islander		American Indian/Alaska Native		Unknown		Total§	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All	54,029	29.3	93,019	50.5	33,399	18.1	1,670	0.9	914	0.5	1,140	0.6	184,170	100
Male transmission categories¶														
Male-to-male sexual contact	35,386	42.8	29,814	36.1	15,742	19.0	861	1.0	407	0.5	452	0.5	82,662	100
Injection-drug use (IDU)	4,090	21.1	10,463	54.0	4,472	23.1	145	0.7	98	0.5	126	0.6	19,394	100
MSM with IDU	2,867	41.4	2,715	39.2	1,184	17.1	45	0.6	63	0.9	54	0.8	6,928	100
High-risk heterosexual contact	2,922	13.1	14,686	65.7	4,301	19.2	235	1.1	76	0.3	146	0.7	22,365	100
Other	254	35.3	323	44.8	130	18.0	8	1.1	2	0.3	4	0.5	721	100
Total	45,519	34.5	58,000	43.9	25,828	19.6	1,294	1.0	646	0.5	781	0.6	132,069	100
Female transmission categories¶														
IDU	2,552	23.3	6,438	58.9	1,737	15.9	63	0.6	70	0.6	75	0.7	10,934	100
High-risk heterosexual contact	5,852	14.5	28,114	69.5	5,728	14.2	304	0.8	189	0.5	279	0.7	40,466	100
Other	105	15.0	467	66.6	106	15.1	9	1.3	9	1.3	5	0.7	702	100
Total	8,510	16.3	35,019	67.2	7,571	14.5	376	0.7	268	0.5	359	0.7	52,101	100
Age group at diagnosis (yrs)														
13–24	4,499	20.2	13,527	60.6	3,866	17.3	147	0.7	114	0.5	169	0.8	22,320	100
25–34	13,991	28.2	23,846	48.0	10,569	21.3	645	1.3	280	0.6	319	0.6	49,650	100
35–44	21,089	32.9	30,446	47.4	11,423	17.8	541	0.8	321	0.5	361	0.6	64,181	100
45–54	10,511	30.6	17,981	52.3	5,269	15.3	252	0.7	152	0.4	184	0.5	34,349	100
55–64	3,129	29.8	5,470	52.2	1,703	16.2	62	0.6	41	0.4	81	0.8	10,487	100
≥65	811	25.5	1,749	55.0	569	17.9	22	0.7	7	0.2	24	0.8	3,183	100
Total	54,029	29.3	93,019	50.5	33,399	18.1	1,670	0.9	914	0.5	1,140	0.6	184,170	100
Region**														
Northeast	9,923	19.6	26,362	52.0	13,183	26.0	716	1.4	87	0.2	455	0.9	50,726	100
Midwest	9,271	44.8	9,503	46.0	1,457	7.0	200	1.0	128	0.6	121	0.6	20,680	100
South	29,442	28.7	55,678	54.4	15,900	15.5	588	0.6	300	0.3	514	0.5	102,421	100
West	5,393	52.1	1,477	14.3	2,859	27.6	165	1.6	400	3.9	50	0.5	10,343	100
Total	54,029	29.3	93,019	50.5	33,399	18.1	1,670	0.9	914	0.5	1,140	0.6	184,170	100
Males														
Region**														
Northeast	8,162	23.8	15,761	46.0	9,384	27.4	565	1.6	60	0.2	313	0.9	34,244	100
Midwest	7,953	50.0	6,463	40.7	1,146	7.2	153	1.0	85	0.5	93	0.6	15,894	100
South	24,573	33.6	34,742	47.5	12,856	17.6	441	0.6	208	0.3	333	0.5	73,152	100
West	4,831	55.0	1,034	11.8	2,443	27.8	135	1.5	294	3.3	42	0.5	8,779	100
Total	45,519	34.5	58,000	43.9	25,828	19.6	1,294	1.0	646	0.5	781	0.6	132,069	100
Females														
Region**														
Northeast	1,762	10.7	10,601	64.3	3,799	23.0	151	0.9	27	0.2	142	0.9	16,482	100
Midwest	1,317	27.5	3,040	63.5	311	6.5	47	1.0	43	0.9	28	0.6	4,786	100
South	4,869	16.6	20,936	71.5	3,044	10.4	147	0.5	91	0.3	181	0.6	29,269	100
West	562	35.9	443	28.3	417	26.6	30	1.9	106	6.8	7	0.5	1,565	100
Total	8,510	16.3	35,019	67.2	7,571	14.5	376	0.7	268	0.5	359	0.7	52,101	100

* Includes persons diagnosed with HIV infection with or without AIDS.

† Data as of June 2006, adjusted for reporting delays and risk factor redistribution.

§ Because subpopulation values were calculated independently, the values might not sum to the row total.

¶ Diagnoses were classified in the following hierarchy of transmission categories: 1) male-to-male sexual contact (i.e., among men who have sex with men [MSM]); 2) injection-drug use (IDU); 3) MSM with IDU; 4) high-risk heterosexual contact (i.e., with a person of the opposite sex known to be HIV infected or at high risk for HIV/AIDS [e.g., MSM or injection-drug user]); and 5) other (e.g., hemophilia or blood transfusion) and all risk factors not reported or not identified.

** Northeast: New Jersey and New York. Midwest: Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Florida, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.

TABLE 2. Estimated number and percentage of HIV/AIDS* diagnoses among non-Hispanic black adults and adolescents, by sex, transmission category, and age group at diagnosis—33 states, 2001–2005†

Category	Males§											Females§							
	MSM		IDU		MSM and IDU		High-risk heterosexual contact		Other		Total	IDU		High-risk heterosexual contact		Other		Total¶	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	No.	%	No.	%	No.	%	No.	
Age group at diagnosis (yrs)																			
13–24	5,951	20.0	572	5.5	263	9.7	1,142	7.8	18	5.7	7,946	661	10.3	4,871	17.3	48	10.3	5,580	
25–34	8,427	28.2	1,602	15.3	593	21.8	3,222	21.9	69	21.4	13,912	1,493	23.2	8,318	29.6	123	26.3	9,934	
35–44	9,329	31.3	3,665	35.0	991	36.5	5,358	36.5	105	32.4	19,448	2,320	36.0	8,525	30.3	153	32.7	10,998	
45–54	4,401	14.8	3,398	32.5	662	24.4	3,336	22.7	80	24.9	11,877	1,508	23.4	4,512	16.0	84	18.0	6,104	
55–64	1,289	4.3	980	9.4	165	6.1	1,200	8.2	32	10.0	3,667	362	5.6	1,402	5.0	40	8.5	1,804	
≥65	417	1.4	245	2.3	40	1.5	429	2.9	18	5.7	1,150	94	1.5	486	1.7	19	4.2	600	
Total	29,814	100	10,463	100	2,715	100	14,686	100	323	100	58,000	6,438	100	28,114	100	467	100	35,019	

* Includes persons diagnosed with HIV infection with or without AIDS.

† Data as of June 2006, adjusted for reporting delays and risk factor redistribution.

§ Diagnoses were classified in the following hierarchy of transmission categories: 1) male-to-male sexual contact (i.e., among men who have sex with men [MSM]); 2) injection-drug use (IDU); 3) MSM with IDU; 4) high-risk heterosexual contact (i.e., with a person of the opposite sex known to be HIV infected or at high risk for HIV/AIDS [e.g., MSM or injection-drug user]); and 5) other (e.g., hemophilia or blood transfusion) and all risk factors not reported or not identified.

¶ Because subpopulation values were calculated independently, the values might not sum to the row total.

TABLE 3. Estimated rates* of HIV† prevalence and AIDS§ prevalence among non-Hispanic black adults and adolescents, by area of residence—United States, 2005¶

Area of residence	HIV	AIDS	State	HIV	AIDS
Alaska	358	208	Montana	•	280
Alaska	106	167	Nebraska	296	293
Arizona	373	287	Nevada	556	447
Arkansas	303	239	New Hampshire	•	735
California	•	578	New Jersey	865	1010
Colorado	515	371	New Mexico	143	169
Connecticut	•	886	New York	712	1421
Delaware	•	809	North Carolina	520	375
District of Columbia	•	3130	North Dakota	315	247
Florida	845	1055	Ohio	320	268
Georgia	•	531	Oklahoma	234	188
Hawaii	•	238	Oregon	•	345
Idaho	323	165	Pennsylvania	•	819
Illinois	•	536	Rhode Island	•	760
Indiana	304	288	South Carolina	463	477
Iowa	197	289	South Dakota	500	383
Kansas	252	221	Tennessee	467	406
Kentucky	•	302	Texas	474	549
Louisiana	433	436	Utah	470	504
Maine	•	349	Vermont	•	586
Maryland	•	847	Virginia	495	385
Massachusetts	•	825	Washington	•	380
Michigan	300	312	West Virginia	513	308
Minnesota	611	415	Wisconsin	358	297
Mississippi	372	276	Wyoming	137	79
Missouri	398	402	United States	518	631

* Per 100,000 population.

† Includes only persons living with HIV that had not progressed to AIDS. These data were reported by the 33 U.S. states with confidential, name-based HIV reporting since at least 2001. Because HIV can be diagnosed at any time in the disease spectrum, the time between HIV and AIDS diagnosis varies.

§ Includes only persons living with AIDS. Cases were from the 50 U.S. states and the District of Columbia (DC). Because DC is a metropolitan area, caution should be exercised when comparing DC AIDS rates with those of the states.

¶ Data as of June 2006, adjusted for reporting delays and risk factor redistribution.