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Reported CD4+ T-Lymphocyte Results for Adults and Adolescents with HIV Infection—37 States, 2005–2007

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention

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Confidential information, referrals, and educational material on HIV infection and AIDS

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Once considered an acute illness characterized by progressive immune system deterioration, HIV infection is now considered a treatable chronic condition. Since the mid-1990s, when highly active antiretroviral therapy became widely available, HIV-infected persons have been able to live longer and more productive lives. Current HIV disease management relies heavily on CD4+ T-lymphocyte (CD4) and viral load testing to monitor disease progression, time clinical care, and assess response to treatment. HIV case surveillance relies on complete CD4 and viral load reporting. Surveillance data presented herein are limited by incomplete reporting of CD4 testing among HIV-infected persons. Of all diagnoses of HIV infection made during 2005–2007 among residents of 37 states with confidential name-based HIV infection reporting since at least January 2005, an estimated 57,028 (49.3%) were reported without a CD4 test result within 3 months after diagnosis (Table 1c).

Surveillance Purposes of Laboratory Results

Laboratory data offer many opportunities to improve the quality of HIV surveillance information. HIV and HIV-related laboratory test results can be used for many surveillance purposes, including the following:

- Identify persons with HIV infection
- Mark access to care and treatment
- Determine stage of HIV infection
- Measure unmet health care needs
- Evaluate HIV testing activities
- Measure incidence and drug resistance

Identify new diagnoses

By the mid-1980s, stage-3 HIV infection (AIDS) was a reportable condition in all 50 states, the District of Columbia, and U.S. dependent areas. Initially, AIDS surveillance was limited to clinical information. Since the early 1990s, CD4 test results have been collected as part of routine HIV surveillance activities. The expansion of the AIDS case definition in 1993 to include an immunologic definition of AIDS—CD4 counts of fewer than 200 cells/µL or a CD4 percentage of less than 14% of total lymphocytes [1]—and the implementation of state-mandated reporting of CD4 results by laboratories led to increased CD4 reporting nationwide [2].

Laboratory results that identify a new diagnosis of HIV infection or mark the progression from a less to a more severe stage of HIV infection are routinely reported to CDC. As antiretroviral medications and prophylaxis and treatment for opportunistic illnesses have helped HIV-infected persons live longer, the national focus has shifted from AIDS (HIV infection, stage 3) to all stages of HIV infection and to HIV incidence. States that formerly focused on ascertainment of AIDS-defining CD4 test results have implemented increasingly comprehensive CD4 test result reporting; over time, an increasing number of states have mandated reporting of all CD4 test results from the time of HIV diagnosis through death (Table 8).

Mark access to care and treatment

The availability and the use of antiretroviral medications have changed the course of HIV disease. To help guide the initiation and the management of highly active antiretroviral therapy, CD4 test results and HIV viral load levels should be monitored routinely. The current HIV clinical management guidelines call for CD4 testing at the time of HIV diagnosis and every 3–6 months thereafter [3]. Because of the clinical use of CD4 and viral load testing, the results of these tests in surveillance data are often used as markers for the receipt of health care.

In July 2010, the President released the *National HIV/AIDS Strategy for the United States*. Among other objectives, the strategy aims to "establish a seamless system to immediately link people to continuous and coordinated quality care when they are diagnosed with HIV." The 2015 objectives include increasing to 85% the percentage of HIV-infected persons who are linked to clinical care within 3 months after HIV diagnosis [4].

Determine stage of HIV infection

In addition to marking the progression from HIV infection, stage 1 or 2 to HIV infection, stage 3 (AIDS), CD4 test results at the time of HIV diagnosis

can be used at the population level to determine the level of immunosuppression and the stage of disease at diagnosis of HIV infection. The level of immunosuppression, in turn, reflects the time from initial infection to diagnosis: in general, the longer the delay between acquisition of HIV infection and HIV testing, the greater the immunosuppression and the lower the CD4 count. In the absence of treatment, the median interval between infection and progression to stage 3 is approximately 8–10 years [5].

Measure unmet health care needs among persons diagnosed with HIV infection

Surveillance data are used to estimate the number of HIV-infected persons not in care and thereby to estimate unmet health care needs. Persons without reported CD4 or viral load test results after HIV diagnosis may be persons with unmet health care needs. U.S. Department of Health and Human Services (DHHS) guidelines hold promise for increasing the percentage of HIV-infected persons with prompt receipt of baseline care, including CD4 and viral load testing; of all recommended baseline care, CD4 and viral load tests are two of the three elements with the strongest recommendation supported by the highest quality of evidence ("A1") [3]. Because of possible underreporting, the data on CD4 and viral load testing in this report should be considered the minimum received by HIV-infected patients residing in the U.S. Although the reasons for not accessing health care after a recent diagnosis are often complex, surveillance data may help to describe factors associated with the absence of CD4 or viral load testing.

Evaluate HIV testing and screening activities

The information in this report can also be used to evaluate prevention activities. In 2006, CDC published recommendations for HIV testing among U.S. residents [6]. These recommendations aim to promote community health by reducing HIV transmission and to promote individual health by encouraging testing and entry to care for persons who test positive. The benefits to the community and the individual accrue by maximizing the number of infected persons who are aware of their infection early in the course of disease. One recommendation is to routinize voluntary HIV testing in health care settings: HIV screening is recommended for all persons aged 13–64 unless the patient were to decline (opt-out screening). Persons at high risk of HIV infection should be tested at least annually. Separate written consent for HIV testing should not be required (general consent for medical care should be sufficient), and prevention counseling should not be required.

These recommendations hold promise for decreasing the number of persons with undiagnosed HIV infection. Of the estimated 1,106,400 adults and adolescents in the United States who were living with HIV at the end of 2006, 21% (232,700) were unaware of their infection and therefore had limited incentive to reduce risky behavior [7]. Also, the implementation of these recommendations should shift the distribution of diagnosed persons toward a larger number of persons with earlier-stage infection. As more diagnoses are made earlier in the course of disease, the median CD4 test result at diagnosis should increase.

Measure incidence and drug resistance

HIV incidence surveillance is the systematic collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons recently infected with HIV. The goal of HIV incidence surveillance is to obtain the data needed to provide national and area-specific population-based estimates of the number of new HIV infections per year. A biological marker of recent infection is used to classify new diagnoses of HIV infection as either of recent or long-standing duration, and additional data on HIV testing and treatment history are collected to determine sampling weights for estimating HIV incidence [8]. Drug resistance surveillance relies on laboratory reporting of viral genetic sequence data.

Tips for Reading this Report

This report complements traditional HIV infection surveillance data for persons aged 13 years and older. For each analysis, we assessed the CD4 test result at a specified time after HIV diagnosis—for most tabulated data, within 3 and 12 months after diagnosis. To allow for the stabilization of data collection and for adjustment of the data to monitor trends, we used data from 37 states with HIV reporting to CDC for at least 4 years. The 37 states and 5 U.S. dependent areas have had mandatory name-based HIV infection reporting since at least January 2005. According to the number of diagnoses of HIV infection, stage 3 (AIDS) reported to CDC through 2008, these 37 states represent approximately 68% of the stage 3 cases in the United States [9].

The tables that describe reported CD4 results within 12 months after diagnosis are available to the reader, but narrative is constrained to descriptions of reported results within 3 months after diagnosis; the main difference between results within 3 and 12 months is a higher percentage of diagnoses with CD4 counts observed within 12 months follow-up. The tables that describe results from 37 states and 5 U.S. dependent areas are available to the reader, but narrative is constrained to descriptions of results from 37 states; the main difference between results with 37 states and 37 states plus the 5 dependent areas is a larger number of diagnoses and CD4 counts. In general, patterns described herein persisted regardless of geographic scope (without or with the 5 U.S. dependent areas) and duration of follow-up (3 or 12 months).

The tables are organized into 4 main sections, each attempting to answer one or more questions.

Section 1 (Tables 1a–3d)

To what extent were HIV-infected persons immunocompromised at diagnosis of HIV infection?

- Tables 1a–d: degree of immunosuppression for the period 2005–2007, as measured by the first CD4 count within 3 and 12 months after diagnosis.
- Tables 2a–d: degree of immunosuppression, by year, as measured by the median value and interquartile range of the first CD4 count within 3 and 12 months after diagnosis.
- Tables 3a–d: degree of immunosuppression for the period 2005–2007, as measured by the median value of the first CD4 count within 3 and 12 months after diagnosis.

What was the trend in degree of immunosuppression during 2005–2007?

- Tables 2a–d: trend in degree of immunosuppression during 2005–2007 by stage of infection, as measured by median value and interquartile range of the first CD4 count within 3 and 12 months after diagnosis.

Section 2 (Tables 4a and 4b)

What was the most severe stage (measured by lowest CD4 count) for persons living with a diagnosis of HIV infection at the end of 2007?

Section 3 (Tables 5a–6d)

To what extent did HIV-infected persons receive recommended baseline care?

- Tables 5a and 5b: Among HIV-infected persons whose HIV diagnosis was made during 2005 or 2006, time elapsed before the first CD4 test.
- Tables 6a–d: Percentage of HIV-infected persons who received a CD4 test alone, a CD4 and a viral load test, a viral load test alone, or no laboratory test within 3 and 12 months after diagnosis.
- Trend in receipt of baseline clinical evaluation during 2005–2007.

Section 4 (Tables 7a and 7b)

How was the case definition for HIV infection, stage 3 (AIDS) satisfied and how did the degree of immunosuppression change during 2005–2007?

- Among infections classified as stage 3 (AIDS), degree to which HIV-infected persons were immunocompromised as measured by CD4 count (see Section 1, above) within 3 and 12 months after diagnosis and how it changed during 2005–2007.
- Among stage 3 cases, satisfaction of diagnostic criteria for the surveillance case definition and how it changed during 2005–2007.

CD4 Count after Diagnosis of HIV Infection

During 2005–2007, an estimated 115,725 diagnoses of HIV infection occurred among residents of the 37 states with confidential name-based HIV infection reporting (Table 1c). Of this total number of diagnoses, 57,028 (49.3%) were classified as stage unknown because no CD4 test results from specimens collected within 3 months after diagnosis were reported to CDC. The remaining 58,698 (50.7%) were reported with CD4 test results and could thus be classified as a stage other than unknown: stage 1—7,101; stage 2—16,967; stage 3—34,630. Thus, the most commonly occurring stage was unknown, followed by stages 3, 2, and 1.

The percentage of persons diagnosed with HIV and a reported CD4 test result remained stable during 2005–2007, as indicated by a change of < 5%, with 50.5% in 2005 and 47.8% in 2007 (Table 6c). Likely an artifact of national HIV case surveillance, which has historically been biased toward the ascertainment

of diagnoses of stage 3 infection (AIDS), the overall median CD4 test result among persons diagnosed during 2005–2007 was AIDS-defining (Tables 2a–2d). The median count increased slightly from 167 cells/μL (interquartile range [IQR], 53–371) in 2005 to 177 cells/μL (IQR, 57–380) in 2007 (Table 2c). These results again demonstrate the common occurrence of severe immunosuppression after diagnosis of HIV infection. The modest increase in values of CD4 test result suggests slightly greater immune system preservation at the time of diagnosis from 2005 to 2007.

Stage 1 diagnoses were characterized by the greatest variability in CD4 test result values because this category has no upper bound. By contrast, stage 2 and stage 3 cases are, by definition, constrained to narrow ranges of CD4 test result values. During 2005–2007, the median CD4 counts, by stage, were as follows: stage 1—703 cells/μL (IQR, 593–875); stage 2—353 cells/μL (IQR, 288–415); stage 3—71 cells/μL (IQR, 22–146) (Table 3c).

Sex

During 2005–2007 in the 37 states with confidential name-based HIV reporting, an estimated 85,240 diagnoses of HIV infection occurred among males and 30,486 among females (Table 1c). Of these people diagnosed with HIV infection, an estimated 41,457 males (48.6%) and 15,570 females (51.1%) either did not receive a CD4 test within 3 months after diagnosis or such a test was not reported, so these infections could not be classified as stage 1, 2, or 3.

During 2005–2007, 26,194 (30.7%) diagnoses of HIV infection among males were classified as stage 3 (AIDS) (Table 1c). During the same period, 8,435 (27.7%) diagnoses among females were classified as stage 3 (Table 1c). The ratio of most (stage 3) to least (stage 1) severe cases among males was approximately 5:1; the ratio among females was 4:1. These data suggest that severe immunosuppression at diagnosis was common among both sexes.

Age group

The degree of immunosuppression at diagnosis increased with increasing age. For example, of an estimated 115,725 diagnoses of HIV infection that were made during 2005–2007 in the 37 states with confidential name-based HIV infection reporting, 2,350 (13.4%) among persons aged 15–24 years were classified as stage 3 (AIDS) (Table 1c). During the same period, 3,148 (43.6%) diagnoses of HIV infection among persons aged 55–64 were classified as stage 3. The median CD4 count within 3 months among persons diagnosed with HIV infection, stage 3 (AIDS) in the age group 15–24 was 117 cells/μL (IQR, 36–167); the median CD4 count in the age group 55–64 was 67 cells/μL (IQR, 24–137) (Table 3c). The greater degree of immunosuppression among older persons may reflect late diagnosis in the disease process [10, 11]. Additionally or alternatively, persons may have been diagnosed with HIV infection, stage 1, 2, or unknown at younger ages and subsequently progressed to HIV infection, stage 3 (AIDS) over time with more rapid progression among older persons.

Transmission category

Immunosuppression as measured by the first CD4 test result within 3 months after diagnosis varied by transmission category. After the transmission category Other (see Technical Notes) was excluded, infections attributable to injection drug use had the highest percentage of diagnoses classified as HIV infection, stage 3 (AIDS). For example, of 8,721 infections among males attributable to injection drug use during the period 2005–2007, 3,406 (39.1%) were classified as HIV infection, stage 3 (Table 1c).

During the period 2005–2007, 12,457 diagnoses of HIV infection among males were attributable to heterosexual contact; of these, 4,444 (35.7%) were classified as stage 3 disease (Table 1c). Of 59,831 diagnoses of HIV infection attributable to male-to-male sexual contact, 17,066 (28.5%) were classified as stage 3.

To further illustrate this variation in degree of immunosuppression by transmission category, an estimated 4,343 diagnoses of HIV infection made in 2007 among males were attributable to heterosexual contact (Table 6c); of these diagnoses, the median value of the first CD4 count was 139 (IQR, 34–306) (Table 2c). Among infections attributable to male-to-male sexual contact, the median value was 182 (IQR, 67–391). The highest value—195 (IQR, 67–407)—was among persons with infections attributable to male-to-male sexual contact and injection drug use.

Despite presumed incomplete reporting of CD4 test results, these data suggest that men who have sex with men may test more frequently because they are aware of their risk of HIV infection while heterosexuals may not consider themselves at elevated risk.

Race/ethnicity

In general, blacks/African Americans had the smallest percentage of persons that could be classified by stage. For example, 30,201 (52.4%) of an estimated 57,633 HIV-infected blacks/African Americans diagnosed during 2005–2007 in the 37 states with confidential name-based HIV infection reporting were classified with stage unknown disease (Table 1c). By contrast, 41 (31.7%) of an estimated 128 Native Hawaiians/Other Pacific Islanders were so classified.

Immunosuppression as measured by the first CD4 test result within 3 months after diagnosis varied by race/ethnicity. Immunosuppression at the time of diagnosis was generally least among whites and greatest among Hispanics/Latinos. For example, among the estimated 11,941 whites diagnosed in 2007 in the 37 states, 51.5% (6,152) had a CD4 test within 3 months after diagnosis, compared with 50.0% (3,623) Hispanics/Latinos (Table 6c). For HIV-infected whites, the median value of the first CD4 count was 224 (IQR, 80–420); for Hispanics/Latinos, the median value was 151 (IQR, 43–340) (Table 2c). To further illustrate this variation, 34,331 whites and 20,753 Hispanics/Latinos were diagnosed in the 37 states during 2005–2007 (Table 1c). Of these diagnoses that could be staged among whites, the ratio of most (stage 3 [AIDS]) to least (stage 1) severe classification was more than 3:1. Of these diagnoses that could be staged among Hispanics/Latinos, the ratio of most to least severe classification was nearly 8:1. These data suggest that severe immunosuppression at diagnosis is common among all racial/ethnic groups, is most pronounced among Hispanics/Latinos, and least pronounced among whites. However, due to the large percentage of HIV-infected persons who did not have a CD4 test reported, comparisons are difficult to make.

While stable trends in immunosuppression at diagnosis were observed for all racial/ethnic groups combined, trends varied by race/ethnicity during 2005–2007. For example, whites and Native Hawaiians/Other Pacific Islanders experienced increasing trends in median CD4 count within 3 months after diagnosis. The following are comparisons of median CD4 counts for whites and for Native Hawaiians/Other Pacific Islanders in 2005 versus 2007 (Table 2c):

- Whites, 2005: median count was 197 cells/μL (IQR, 76–416)
- Whites, 2007: median count was 224 cells/μL (IQR, 80–420)
- Native Hawaiians/Other Pacific Islanders, 2005: median count was 184 cells/μL (IQR, 97–347)
- Native Hawaiians/Other Pacific Islanders, 2007: median count was 268 cells/μL (IQR, 114–396)

Despite presumed incomplete CD4 reporting, these data suggest that during 2005–2007 the trend for at least two racial/ethnic groups indicated slightly less immune system deterioration at diagnosis.

Longitudinal CD4 Test Results and Stage of HIV Infection

In the revised case definition for HIV infection among adults and adolescents, classification by stage of infection is unidirectional, from less to more severe. Having once been classified in a more severe category (e.g., stage 3 [AIDS]), a case cannot be reclassified in a less severe category (e.g., stage 2) [12]. Thus, the lowest CD4 count from an HIV-infected person's clinical history determines the stage. Although staging is primarily used at the time of initial diagnosis of HIV infection, longitudinal follow-up can help to describe the most severe stage experienced by adults and adolescents living with HIV infection.

In the 37 states with confidential name-based HIV infection reporting, an estimated 577,450 adults and adolescents were living with a diagnosis of HIV infection at the end of 2007 (Table 4a). These persons known to be living with HIV represent the minimum size of the reservoir of adult and adolescent HIV infections in the United States. By stage, 116,714 (20.2%) diagnoses were classified as stage unknown; 37,688 (6.5%) as stage 1; 89,707 (15.5%) as stage 2; and 333,341 (57.7%) as stage 3 (AIDS). Thus, the number of HIV-infected adults and adolescents classified as most severe was nearly nine times the number classified as least severe. Despite presumed incomplete CD4 test result reporting, these data also suggest that a substantial percentage of adults and adolescents living with HIV apparently did not receive care at any time after diagnosis.

Sex

The most severe stage of HIV infection experienced by adults and adolescents living with a diagnosis of HIV infection varied by sex. Of the estimated 577,450

adults and adolescents living with HIV infection at the end of 2007, 420,703 were male and 156,746 were female (Table 4a). Of the males living with HIV, 247,772 (58.9%) had HIV infection, stage 3 (AIDS) at some point at or after initial diagnosis of HIV infection. Of the adult and adolescent females living with HIV, 85,569 (54.6%) had HIV infection, stage 3 at some point at or after diagnosis. The ratio of most to least severe classification among males was nearly 10:1; the ratio among females was 7:1. These data suggest that severe immunosuppression was common among both sexes. Despite presumed incomplete reporting of CD4 test results, severe immunosuppression was more common among males.

Age group

The most severe stage of HIV infection experienced by adults and adolescents living with a diagnosis of HIV infection varied by age group. In general and excluding persons aged 13–14 years, the oldest HIV-infected persons at the end of 2007 were most commonly classified as stage 3 disease. Of 68,374 adults and adolescents aged 55–64 years living with HIV, 45,703 (66.8%) had infections classified as stage 3 at some point at or after initial diagnosis (Table 4a). Of 84,700 persons aged 25–34 years, 35,745 (42.2%) had infections classified as stage 3 (AIDS) at some point at or after initial diagnosis. The ratio of most to least severe stage experienced by adults and adolescents living with HIV aged 45–54 was approximately 10:1; the ratio among those aged 15–24 was approximately 4:1. The greater the degree of immunosuppression among older persons may reflect late diagnosis in the disease process. Additionally or alternatively, persons may have been diagnosed with HIV infection, stage 1, 2, or unknown at younger ages and subsequently progressed to HIV infection, stage 3 (AIDS) over time with more rapid progression among older persons.

Transmission category

The most severe stage of HIV infection experienced by adults and adolescents living with a diagnosis of HIV infection varied by transmission category. At the end of 2007, in the 37 states with confidential name-based HIV infection reporting, 40,197 females were living with infections attributable to injection drug use (Table 4a). Of these HIV infections, 25,132 (62.5%) were classified as stage 3 disease (AIDS). A total of 111,631 females were living with infections attributable to heterosexual contact. Of these infections among females attributable to heterosexual contact, 57,129 (51.2%) were classified as stage 3 (AIDS). The pattern for males was similar. A total of 68,532 males were living with infections attributable to injection drug use. Of these infections attributable to injection drug use among males, 46,279 (67.5%) were classified as stage 3 (AIDS). A total of 51,151 males were living with infections attributable to heterosexual contact. Of these infections among males attributable to heterosexual contact, 30,649 (59.9%) were classified as stage 3 (AIDS). Despite presumed incomplete reporting of CD4 test results, these data suggest that severe immunosuppression among adults and adolescents living with HIV was common across all transmission categories but was most pronounced among those whose infections were attributable to injection drug use.

Race/ethnicity

The most severe stage of HIV infection experienced by adults and adolescents living with a diagnosis of HIV infection varied by race/ethnicity. CD4 test results low enough to result in classification as stage 3 disease (AIDS) were most common among Hispanics/Latinos and least common among Native Hawaiians/Other Pacific Islanders. Of 245 Native Hawaiians/Other Pacific Islanders living with HIV infection at the end of 2007, 112 (45.6%) had a lowest CD4 count that resulted in classification as stage 3 (AIDS) (Table 4a). Of 99,787 Hispanics/Latinos living with HIV at the end of 2007, 61,823 (62.0%) had a lowest CD4 count that resulted in classification as stage 3. These data suggest that severe immunosuppression among adults and adolescents living with HIV was common across all racial/ethnic categories but was most pronounced among Hispanics/Latinos.

Entry into Care after Diagnosis of HIV Infection, by Stage

This section helps to describe whether HIV-infected persons entered care after diagnosis of HIV infection, how quickly they entered care, and the completeness of selected elements of baseline care based on reported CD4 and viral load laboratory tests.

CD4 testing

In 2005 and 2006, in the 37 states with confidential name-based HIV infection reporting, HIV infection

was diagnosed for an estimated 75,427 adults and adolescents. Of these, 48,413 (64.2%) had received at least one CD4 test by December 31, 2009 (end of the follow-up period) (Table 5a): 38,924 (51.6%) within 3 months after diagnosis, 44,855 (59.5%) within 12 months after diagnosis, and 46,796 (62.0%) within 18 months after diagnosis.

Throughout the follow-up period, distributions of classification of HIV infection by stage were similar. The main exception was at zero months of follow-up: the percentage of persons with stage 3 (AIDS) was large (64.8%); and the percentage of persons with HIV infection, stage 1 diagnoses was small (10.2%) (Table 5a). Many people seek HIV testing only after they become ill; by then, severe immunosuppression is common. By the end of the follow-up period—a minimum of 36 months (for cases diagnosed in 2006), and a maximum of 48 months (for cases diagnosed in 2005)—6,018 of 48,413 (12.4%) HIV-infected persons who had received at least one CD4 count were classified as stage 1 disease; 14,335 (29.6%) as stage 2; and 28,060 (58.0%) as stage 3. As mentioned earlier, the number of HIV diagnoses classified as most severe was nearly five times as high as the number of HIV diagnoses classified as least severe.

CD4 and viral load testing

In addition to calling for CD4 testing, the treatment guidelines call for prompt viral load testing of patients with diagnosed HIV infection [3]. This report stratified HIV-infected persons by these laboratory tests performed, and by selected demographic characteristics, by year of diagnosis, 2005–2007. In 2007, an estimated 40,298 adults and adolescents in the 37 states with confidential name-based HIV infection reporting had HIV diagnosed (Table 6c). Within 3 months after diagnosis in 2007, 15,971 (39.6%) HIV-infected persons received no reported lab test; 14,220 (35.3%) received a CD4 test and a viral load test; 5,049 (12.5%) received a CD4 test only; and 5,058 (12.6%) received a viral load test only. The percentage (about 40%) of HIV-infected persons who had no reported lab test was stable during 2005–2007.

Age group

The percentages of HIV-infected adults and adolescents who had no reported lab test within 3 months after diagnosis varied by age group. An estimated 52.9% (3,430 of 6,490) of HIV-infected persons aged 15–24 years (Table 6c) had no reported lab tests within 3 months after diagnoses made in 2007. In general, the percentage of HIV-infected persons with no reported lab tests decreased with increasing age at time of diagnosis. These data suggest that absence of CD4 and viral load testing was common among all age groups but was most pronounced among young adults.

Transmission category

The percentages of HIV-infected persons who received a CD4 and a viral load test within 3 months after diagnosis varied by transmission category. For example, of the estimated 10,385 females with a diagnosis of HIV infection in 2007 in the 37 states with confidential name-based HIV infection reporting, 8,657 had infections attributable to heterosexual contact (Table 6c). Of these females: 41.5% (3,594) had no reported lab test within 3 months after diagnosis; 34.0% (2,941) received a CD4 and a viral load test within 3 months after diagnosis; 11.9% (1,031) received a CD4 test only; and 12.6% (1,091) received a viral load test only. A total of 1,634 had infections attributable to injection drug use. Of these females: 37.4% (611) had no reported lab test within 3 months after diagnosis; 36.5% (597) received a CD4 and a viral load test within 3 months after diagnosis; 14.3% (234) received a CD4 test only; and 11.8% (193) received a viral load test only.

Race/ethnicity

The percentages of HIV-infected persons who had no reported lab test within 3 months after diagnosis varied by racial/ethnic group. In general, CD4 and viral load testing in 2007 in the 37 states with confidential name-based HIV infection reporting was least common among blacks/African Americans. For example, of the estimated 20,025 diagnoses made in 2007 among blacks/African Americans, 9,050 (45.2%) had no reported lab test within 3 months after diagnosis (Table 6c). By contrast, of the estimated 204 diagnoses among American Indians/Alaska Natives, 62 (30.5%) had no reported lab test.

CD4 Count at Diagnosis of HIV Infection, Stage 3 (AIDS)

Satisfaction of case definition criteria

Among HIV-infected adults and adolescents classified with stage 3 disease (AIDS) at any time during 2005–2007, the case definition was most commonly satisfied by immunologic criteria alone (Table 7a). The percentage of immunologic diagnoses was stable during 2005–2007 as indicated by an increase of <5% over the period. Of an estimated 25,214 stage 3 diagnoses in 2007, 82.3% were based on CD4 testing, 13.0% on CD4 testing **and** diagnosis of an opportunistic illness, and 4.8% satisfied the case definition by the presence of one or more of the 26 opportunistic illnesses.

CD4 results and presence of opportunistic illness

Among HIV-infected persons classified as stage 3 disease (AIDS) at any time during 2005–2007, the degree of immunosuppression varied by how the case definition was satisfied. Because the HIV case surveillance system preferentially captured the first AIDS-defining CD4 test results (e.g.; <200 cells/µL), HIV-infected persons whose diagnosis was based on immunologic criteria only appeared to have the least degree of immunosuppression, while persons whose diagnosis was based on immunologic and clinical criteria (i.e., simultaneous CD4 < 200 cells/µL and diagnosis of one or more opportunistic illnesses) appeared to have the greatest degree of immunosuppression (Table 7a). For example, of the 13,178 diagnoses of HIV infection, stage 3 (AIDS) made in 2007 with CD4 results in the range of 100–199 cells/µL, 12,650 (96.0%) were based on immunologic criteria alone. Of the 7,152 diagnoses of HIV infection stage 3 in 2007 with CD4 results <50 cells/µL, 4,981 (69.6%) were based on immunologic criteria alone. This general pattern persisted during 2005–2007.

The degree of immunosuppression also varied when HIV-infected persons classified as stage 3 disease (AIDS) satisfied the case definition by both laboratory (immunologic) and clinical criteria. In 2007, 13.0% (3,275) of the diagnoses of HIV infection, stage 3 (AIDS) were so classified on the basis of CD4 results and opportunistic illness: 528 (16.1%) with CD4 counts of 100–199 cells/µL; 577 (17.6%) with CD4 counts of 50–99 cells/µL; and 2,171 (66.3%) with CD4 counts of fewer than 50 cells/µL (Table 7a). Thus, the ratio of greatest to least degree of immunosuppression was more than 4:1. Reflecting the decreasing occurrence of opportunistic illnesses and the relative ease of ascertaining laboratory data, the trend in percentage of diagnoses of HIV infection, stage 3 (AIDS) based on both criteria was essentially stable from 2005–2007.

Technical Notes

SURVEILLANCE OF HIV INFECTION

This report includes data from case reports from 42 areas (37 states, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) that had laws or regulations requiring confidential name-based HIV infection reporting for adults and adolescents with a confirmed diagnosis of HIV infection at any stage (including stage 3 [AIDS]) since at least January 2005. After the removal of personal identifying information, data from these reports were submitted to CDC. The implementation of HIV infection reporting has differed from state to state. Before 1991, the surveillance of HIV infection was not standardized, and reporting was based primarily on passive surveillance. The information on many of the cases reported before 1991 is not complete. Since then, CDC has assisted states in conducting active surveillance of HIV infection by the use of standardized case report forms and software.

Data on diagnoses of HIV infection should be interpreted with caution. HIV surveillance case reports may not be representative of all persons infected with HIV because not all infected persons have been tested. Many HIV-reporting states offer anonymous HIV testing, but the results of anonymous tests are not reported to the confidential name-based HIV registries of state and local health departments. Therefore, reports of confidential test results may not represent all persons who tested positive for HIV infection.

Data on CD4 and viral load testing among HIV-infected persons should also be interpreted with caution. Surveillance data presented herein are limited by presumed incomplete reporting of CD4 testing among HIV-infected persons. While diagnoses of HIV infection have almost always been among sentinel events in the surveillance system, CD4 test results have become increasingly important among such events. This increasing importance of CD4 results is evidenced by a trend of increasingly comprehensive CD4 result reporting laws across the country, attended by an increasing long-term trend in immunologic diagnoses of HIV infection, stage 3 (AIDS). As of year-end 2007, many U.S. states and dependent areas still did not require reporting of all CD4 test results (Table 8). Of the 37 states included in this report, 19 (51.4%) required reporting of all CD4 test results, 13 (35.1%) required reporting of counts < 200 cells/µL, 4 (10.8%) required reporting of counts < 500 cells/µL, and 1 (2.7%) required reporting of counts < 800 cells/µL. National evaluations of completeness of CD4 and viral load reporting are underway. Thus, even in the presence of 100% compliance with reporting regulations and transmission of all reported CD4 results by states to CDC, receipt of CD4 tests among HIV-infected persons may be understated as reported herein. Additionally, results should be interpreted with caution because observed differences over time and/or between subpopulations at a given time could reflect artifacts of reporting patterns rather than actual differences.

To estimate the number of diagnoses of HIV infection, we used data from 42 areas. The areas comprise 37 states (Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming) and 5 U.S. dependent areas (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands). For Tables 1a, 1c, 2a, 2c, 3a, 3c, 4a, 5a, 6a, 6c, and 7a, we used data from the 37 states to tabulate estimated numbers of diagnoses of HIV infection, and for Tables 1b, 1d, 2b, 2d, 3b, 3d, 4b, 5b, 6b, 6d, and 7b, we included data from the 5 U.S. dependent areas. For Table 8, we used data from all U.S. jurisdictions.

Many factors, including the extent to which HIV testing is routinely offered to specific groups and the availability of, and access to, medical care and testing services, may influence testing patterns. These data provide a minimum estimate of persons known to be HIV infected. Additionally, because surveillance practices differ, the reporting and the updating of a person's clinical and vital status differ among states. The completeness of reporting of HIV infection is estimated at more than 80% [13].

HIV infection, case classification by stage

For this report, we used the 2008 revised HIV case definition to classify HIV infection among adults and ado-

lescents [12]. The specificity of the case definition was increased by requiring laboratory-confirmed evidence of HIV infection. Increased specificity results in more accurate data on the number of diagnoses of HIV infection; these data, in turn, can be used to refine public health policies and determine the most appropriate use of HIV resources. The primary purpose of the HIV surveillance case definition's classification system is to stage infections at diagnosis. Secondarily, the system may also be used to describe the greatest degree of immunosuppression at any time after diagnosis.

For adults and adolescents, the case definitions for HIV infection and AIDS have been revised into a single case definition for HIV infection, which includes AIDS and incorporates the HIV infection classification system [12]. The 2008 case definition highlights the central role of the CD4 counts and percentages, which are objective measures of immunosuppression that are routinely used in the care of HIV-infected persons and are available to surveillance programs. The 3 CD4 count categories have been renamed for HIV infection (increasing in severity from stage 1 through stage 3 [AIDS]), and an unknown stage has been included. For surveillance purposes, HIV disease progression is classified from less to more severe; once cases are classified in a more severe stage, they cannot be reclassified into a less severe stage.

A confirmed case meets the laboratory criteria for diagnosis of HIV infection and 1 of the 4 HIV infection stages (stage 1, stage 2, stage 3 [AIDS], or stage unknown) [12]. Although cases with no information on CD4 count or percentage and no information on AIDS-defining conditions can be classified as stage unknown, states should make every effort to report to CDC CD4 counts or percentages and the presence of AIDS-defining conditions at the time of diagnosis. Additional CD4 counts or percentages and any identified AIDS-defining conditions can be reported as recommended [14].

HIV infection, stage 1

- No AIDS-defining condition and either CD4 count of ≥500 cells/µL or CD4 percentage of total lymphocytes of ≥29.

HIV infection, stage 2

- No AIDS-defining condition and either CD4 count of 200–499 cells/µL or CD4 percentage of total lymphocytes of 14–28.

HIV infection, stage 3 (AIDS)

- CD4 count of <200 cells/µL or CD4 percentage of total lymphocytes of <14 or documentation of an AIDS-defining condition. Documentation of an AIDS-defining condition supersedes a CD4 count of ≥200 cells/µL and a CD4 percentage of total lymphocytes of ≥14. Definitive diagnostic methods for these conditions are available in Appendix C of the 1993 revised HIV classification system and the expanded AIDS case definition [1].

HIV infection, stage unknown

- No information available on CD4 count or percentage and no reported information on AIDS-defining conditions. (Every effort should be made to report to public health authorities CD4 counts or percentages at the time of diagnosis.)

Surveillance of CD4 Test Results

Reported CD4 test results may include: CD4 count, percentage, or count and percentage. Although CD4 count is more widely used to monitor disease, CD4 percentage alone is sometimes reported. In an effort to maximize the interpretability of CD4 results, the earliest CD4 percentages were interpreted within a category of CD4 test results *or* as discrete CD4 counts. For Table series 1, 4, and 5, percentages were converted as needed to CD4 count categories. For Table series 2, 3, and 7, percentages were converted as needed to discrete counts.

Classifying reported CD4 percentages as HIV infection, stage 1, 2, or 3 was straightforward, in accordance with the case classification system [12]. This conversion table was used to convert percentages to count categories (Table series 1, 4, and 5).

CD4 percentages to CD4 count groups, conversion table

Stage	Percentage (%)	Counts (cells/µL)
1	≥29	≥500
2	14–28	200–499
3 (AIDS)	<14	<200

Source: CDC. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. *MMWR* 2008;57(RR-10)

Conversions from percentages to discrete counts were achieved by employing data from CDC. These data yielded a table of discrete counts as they correspond to specific percentages. This correlation table was used to convert percentages to counts (Table series 2, 3, and 7) [15].

Surveillance of Viral Load Test Results

Viral load tests are essential for sound clinical case management of HIV disease [3]. Uptake of viral load testing is described in this report (Tables 6a–d), to show the extent to which HIV-infected persons received this part of recommended baseline care. In addition to promoting the reporting of all CD4 results, CDC promotes reporting of all viral load results—including undetectable—to surveillance.

Tabulation and Presentation of Data

Data in this report are provisional. This report includes case report data reported to CDC through June 2009, and laboratory data reported to CDC through December 2009. The data in this report are organized into 5 sections.

- Section 1: Tables 1a–3d describe, with various metrics, the degree to which HIV-infected persons were immunocompromised at or shortly after diagnosis of HIV infection, any stage. Numbers were statistically adjusted for reporting delays and missing risk-factor information, but not for incomplete reporting.
- Section 2: Tables 4a and 4b describe the most severe stage of HIV infection among adults and adolescents living with HIV infection. Numbers were statistically adjusted for reporting delays, missing risk-factor information, and death reporting delays, but not for incomplete reporting.
- Section 3: Tables 5a–6d describe, with various metrics, the degree to which persons with diagnosed HIV infection received baseline clinical evaluation. Numbers in all these tables were statistically adjusted for reporting delays, but not for incomplete reporting; the numbers in Tables 6a–6d were also statistically adjusted for missing risk-factor information.
- Section 4: Tables 7a and 7b describe how the surveillance case definition for stage 3 (AIDS) was satisfied. These tables also describe the degree of immunosuppression at diagnosis. Numbers were statistically adjusted for reporting delays, but not for incomplete reporting.
- Section 5: Table 8 describes CD4 and viral load reporting requirements by: U.S. state, the District of Columbia, and dependent areas. This information was obtained through queries of surveillance staff, and was included in this report to suggest that some results may be distorted by artifacts of reporting to the national surveillance system.

For the assessment of trends in diagnoses, deaths, or prevalence, statistically adjusted (estimated) data are superior to unadjusted data because they reflect minimization of artifacts attributable to reporting delays and failure to elicit suitable risk-factor information from HIV-infected persons.

Diagnosis date

Diagnosis dates are based on when laboratory criteria for the case definition of HIV infection were satisfied. Of the estimated 115,725 diagnoses of HIV infection made during 2005–2007, 761 cases (0.65%) had missing value for month of diagnosis. For these cases with missing month of diagnosis, the value was set to June. Sensitivity analysis (data not shown) showed that various selections for this imputation had minimal effects on results. The diagnosis dates in all tables, except Tables 7a and 7b, reflect the HIV stage classification, based on the first CD4 count within 3 or 12 months after a positive HIV test result. Tables 7a and 7b display data on HIV-infected persons who tested positive before December 31, 2007, and whose infection was either classified as stage 3 (AIDS) at initial diagnosis or whose infection progressed to stage 3 during January 1, 2005 through December 31, 2007.

CD4 or viral load date

When the month of CD4 or viral load testing was missing, the value was set to June. Sensitivity analysis (data not shown) showed that various selections for this imputation had minimal effects on results.

Age groups

The designation “adults and adolescents” refers to persons aged 13 years and older. For presentations of data on adults and adolescents living with HIV (Tables 4a and 4b), the age-group assignment is based on the person’s age as of December 31, 2007. For all other tables, the age designation or the specific age-group assignment is based on the person’s age at the time of diagnosis of HIV infection, any stage.

Race and ethnicity

The Asian/Pacific Islander category displayed in previous reports has been split into 2 categories: (1) Asian and (2) Native Hawaiian or other Pacific Islander. In the tables of stage 3 (AIDS) data in this report, the Asian category includes the cases in Asians/Pacific

Islanders (referred to as legacy cases) that were reported before the implementation of the new categories in 2003 (e.g., tables of cumulative data include persons whose initial diagnosis was reported to CDC before 2003 but whose infection progressed to stage 3 [AIDS] after 2003) and a small percentage of cases that were reported after 2003 but that were reported according to the old racial category (Asian/Pacific Islander). In tables of stage 1 or 2 infections diagnosed during 2005–2007, the Asian category does not include Asian/Pacific Islander cases because these cases were diagnosed after 2003 and were reported to CDC in accordance with the revised standards of the Office of Management and Budget [16].

Adults and adolescents living with HIV infection

Tabulations of adolescents and adults living with HIV infection at the end of 2007 (Tables 4a and 4b) include persons who were reported as alive or whose vital status was missing or unknown as of the last update of the data. A classification of stage 3 (AIDS) at any time did not change, even if the CD4 count increased to ≥200 cells/µL by the end of 2007. Thus, Tables 4a and 4b reflect the lowest CD4 count among adults and adolescents living with HIV ever reported to the national surveillance system. Caution should be used in interpreting the data in Tables 4a and 4b because (1) states differ in how they establish the vital status of persons reported as HIV infected, and (2) some persons are lost to follow-up.

Transmission categories

Transmission category summarizes a person's possible HIV risk factors; the summary classification results from selecting, from the presumed hierarchical order of probability, the one risk factor most likely to have been responsible for transmission. For surveillance purposes, a diagnosis of HIV infection, any stage, is counted only once in the hierarchy of transmission categories. Persons with more than one reported risk factor for HIV infection are classified in the transmission category listed first in the hierarchy. The exception is men who report sexual contact with other men and injection drug use; this group makes up a separate transmission category.

Persons whose transmission category is classified as male-to-male sexual contact include men who report sexual contact with other men (i.e., homosexual contact) and men who report sexual contact with both men and women (i.e., bisexual contact). Persons whose transmission category is classified as heterosexual contact are persons who report specific heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., an injection drug user).

Adults and adolescents born in, or who had sex with someone born in, a country where heterosexual transmission was the predominant mode of HIV transmission, as indicated by relevant literature, are classified as having heterosexually acquired HIV infection only if they meet the criteria stated in the preceding paragraph. Persons who were reported without information about a behavioral or a transfusion risk factor for HIV infection were classified (in the absence of other risk factor information that would classify them in another transmission category) as "no risk factor reported or identified."

Because a substantial percentage of cases of HIV infection, any stage, are reported to CDC without an identified risk factor, multiple imputation is used to assign a risk factor for these cases [17]. Multiple imputation is a statistical approach in which each missing risk factor is replaced with a set of plausible values that represent the uncertainty about the true, but missing, value [18]. The plausible values are analyzed by using standard procedures, and the results from these analyses are then combined to produce the final results. In this report, multiple imputation has been used in tables showing estimated values for diagnoses.

Reporting Delays

Reporting delays (time between diagnosis or death and the reporting of diagnosis or death to CDC) may differ among may differ among demographic and geographic categories; for some, delays in reporting have been as long as several years. The statistical adjustment of the data on diagnoses and deaths is based on estimates of reporting-delay distributions, which are calculated by using a modified semiparametric life-table statistical procedure. This procedure takes into account differences in reporting delays due to sex, race/ethnicity, and HIV transmission categories; reporting city, state, or territory; geographic region; the size of the MSA: and the type of facility where the diagnosis was made or death occurred, but not for incomplete reporting. In addition, the method used in this report takes into account changes in the patterns of reporting delays over time as well as reporting delays of more than 5 years [19].

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Table 1a. First CD4 test performed within 12 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	5,879	6.9	14,995	17.6	29,568	34.7	34,797	40.8	85,240
Female	2,624	8.6	5,161	16.9	9,560	31.4	13,141	43.1	30,486
Age at diagnosis (yr)									
13–14	8	6.4	30	24.2	39	32.2	46	37.2	122
15–24	1,501	8.5	3,729	21.2	2,943	16.8	9,384	53.4	17,557
25–34	2,290	7.6	5,678	18.9	8,500	28.3	13,616	45.3	30,085
35–44	2,619	7.3	6,080	16.9	13,387	37.2	13,880	38.6	35,967
45–54	1,578	6.9	3,383	14.9	9,751	42.9	8,021	35.3	22,733
55–64	423	5.9	1,016	14.1	3,432	47.6	2,342	32.5	7,213
≥65	83	4.0	241	11.8	1,075	52.5	650	31.7	2,049
Race/ethnicity									
American Indian/Alaska Native	43	7.7	131	23.6	199	36.0	181	32.7	553
Asian	56	5.2	235	21.6	371	34.1	426	39.1	1,089
Black/African American	3,596	6.2	9,202	16.0	19,291	33.5	25,544	44.3	57,633
Hispanic/Latino[c]	1,076	5.2	3,210	15.5	7,992	38.5	8,475	40.8	20,753
Native Hawaiian/Other Pacific Islander	6	5.0	41	31.8	47	36.6	34	26.6	128
White	3,620	10.5	7,049	20.5	10,760	31.3	12,903	37.6	34,331
Multiple races	105	8.5	289	23.4	469	37.8	376	30.4	1,239
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	4,427	7.4	11,140	18.6	19,271	32.2	24,991	41.8	59,831
Injection drug use	495	5.7	1,260	14.4	3,767	43.2	3,199	36.7	8,721
Male-to-male sexual contact and injection drug use	367	9.4	783	20.1	1,236	31.7	1,507	38.7	3,893
Heterosexual contact[d]	571	4.6	1,766	14.2	5,083	40.8	5,037	40.4	12,457
Other[e]	18	5.4	47	13.8	211	62.3	63	18.5	338
Female adult or adolescent									
Injection drug use	444	8.6	794	15.3	1,910	36.8	2,044	39.4	5,193
Heterosexual contact[d]	2,172	8.7	4,329	17.3	7,449	29.8	11,049	44.2	24,999
Other[e]	8	2.6	37	12.7	201	68.5	48	16.2	294
Total[f]	**8,502**	**7.3**	**20,156**	**17.4**	**39,128**	**33.8**	**47,939**	**41.4**	**115,725**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected within 12 months after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Hispanics/Latinos can be of any race.

[d] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[e] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 1b. First CD4 test performed within 12 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	6,031	6.9	15,331	17.4	30,509	34.7	36,033	41.0	87,904
Female	2,752	8.7	5,378	17.0	9,915	31.3	13,589	43.0	31,634
Age at diagnosis (yr)									
13–14	11	8.7	30	22.9	40	31.3	48	37.1	129
15–24	1,533	8.5	3,811	21.3	2,995	16.7	9,593	53.5	17,931
25–34	2,385	7.7	5,839	18.8	8,719	28.1	14,123	45.5	31,066
35–44	2,694	7.3	6,224	16.8	13,795	37.2	14,393	38.8	37,106
45–54	1,630	6.9	3,490	14.8	10,131	43.0	8,328	35.3	23,580
55–64	439	5.8	1,057	14.0	3,597	47.7	2,447	32.5	7,540
≥65	90	4.1	259	11.8	1,146	52.4	690	31.6	2,186
Race/ethnicity									
American Indian/Alaska Native	43	7.7	131	23.6	199	36.0	181	32.7	553
Asian	56	5.2	235	21.5	371	33.9	431	39.4	1,094
Black/African American	3,596	6.2	9,204	15.9	19,304	33.5	25,604	44.4	57,708
Hispanic/Latino[c]	1,357	5.5	3,759	15.4	9,272	37.9	10,086	41.2	24,474
Native Hawaiian/Other Pacific Islander	6	4.9	41	30.7	47	35.3	39	29.1	132
White	3,620	10.5	7,050	20.5	10,762	31.3	12,905	37.6	34,338
Multiple races	105	8.5	289	23.4	469	37.8	376	30.4	1,239
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	4,481	7.4	11,277	18.6	19,565	32.3	25,335	41.8	60,658
Injection drug use	551	5.6	1,359	13.9	4,114	42.1	3,755	38.4	9,779
Male-to-male sexual contact and injection drug use	378	9.4	803	20.0	1,269	31.7	1,560	38.9	4,010
Heterosexual contact[d]	603	4.6	1,845	14.1	5,348	40.8	5,321	40.6	13,117
Other[e]	20	5.7	47	13.7	213	62.2	63	18.4	342
Female adult or adolescent									
Injection drug use	471	8.7	833	15.4	1,965	36.3	2,146	39.6	5,416
Heterosexual contact[d]	2,272	8.8	4,507	17.4	7,747	29.9	11,395	44.0	25,921
Other[e]	9	2.9	39	12.9	203	68.2	48	16.0	298
Total[f]	**8,783**	**7.3**	**20,709**	**17.3**	**40,424**	**33.8**	**49,622**	**41.5**	**119,539**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected within 12 months after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Hispanics/Latinos can be of any race.

[d] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[e] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 1c. First CD4 test performed within 3 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	4,963	5.8	12,625	14.8	26,194	30.7	41,457	48.6	85,240
Female	2,138	7.0	4,342	14.2	8,435	27.7	15,570	51.1	30,486
Age at diagnosis (yr)									
13–14	6	4.6	22	17.9	39	32.2	56	45.3	122
15–24	1,214	6.9	3,029	17.3	2,350	13.4	10,964	62.4	17,557
25–34	1,905	6.3	4,752	15.8	7,350	24.4	16,077	53.4	30,085
35–44	2,209	6.1	5,150	14.3	11,945	33.2	16,662	46.3	35,967
45–54	1,342	5.9	2,915	12.8	8,799	38.7	9,676	42.6	22,733
55–64	355	4.9	897	12.4	3,148	43.6	2,813	39.0	7,213
≥65	69	3.4	202	9.8	999	48.7	779	38.0	2,049
Race/ethnicity									
American Indian/Alaska Native	37	6.8	110	19.9	180	32.5	226	40.8	553
Asian	42	3.9	196	18.0	313	28.7	538	49.4	1,089
Black/African American	2,977	5.2	7,662	13.3	16,793	29.1	30,201	52.4	57,633
Hispanic/Latino[c]	899	4.3	2,769	13.3	7,146	34.4	9,939	47.9	20,753
Native Hawaiian/Other Pacific Islander	6	5.0	37	29.2	43	34.0	41	31.7	128
White	3,058	8.9	5,966	17.4	9,740	28.4	15,567	45.3	34,331
Multiple races	81	6.5	228	18.4	415	33.5	515	41.6	1,239
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	3,748	6.3	9,380	15.7	17,066	28.5	29,637	49.5	59,831
Injection drug use	426	4.9	1,061	12.2	3,406	39.1	3,828	43.9	8,721
Male-to-male sexual contact and injection drug use	293	7.5	646	16.6	1,071	27.5	1,882	48.4	3,893
Heterosexual contact[d]	480	3.9	1,495	12.0	4,444	35.7	6,037	48.5	12,457
Other[e]	15	4.3	43	12.8	208	61.3	73	21.6	338
Female adult or adolescent									
Injection drug use	371	7.1	661	12.7	1,725	33.2	2,436	46.9	5,193
Heterosexual contact[d]	1,760	7.0	3,645	14.6	6,513	26.1	13,080	52.3	24,999
Other[e]	7	2.3	36	12.2	197	67.1	54	18.4	294
Total[f]	**7,101**	**6.1**	**16,967**	**14.7**	**34,630**	**29.9**	**57,028**	**49.3**	**115,725**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected within 3 months after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Hispanics/Latinos can be of any race.

[d] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[e] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 1d. First CD4 test performed within 3 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	5,083	5.8	12,895	14.7	27,017	30.7	42,909	48.8	87,904
Female	2,236	7.1	4,517	14.3	8,753	27.7	16,129	51.0	31,634
Age at diagnosis (yr)									
13–14	8	6.1	22	17.0	40	31.3	59	45.6	129
15–24	1,234	6.9	3,093	17.3	2,395	13.4	11,209	62.5	17,931
25–34	1,976	6.4	4,875	15.7	7,532	24.2	16,684	53.7	31,066
35–44	2,267	6.1	5,269	14.2	12,308	33.2	17,262	46.5	37,106
45–54	1,389	5.9	3,006	12.7	9,133	38.7	10,052	42.6	23,580
55–64	370	4.9	931	12.4	3,299	43.8	2,940	39.0	7,540
≥65	75	3.4	216	9.9	1,063	48.6	832	38.1	2,186
Race/ethnicity									
American Indian/Alaska Native	37	6.8	110	19.9	180	32.5	226	40.8	553
Asian	42	3.9	196	17.9	313	28.6	544	49.7	1,094
Black/African American	2,977	5.2	7,664	13.3	16,806	29.1	30,261	52.4	57,708
Hispanic/Latino[c]	1,117	4.6	3,211	13.1	8,269	33.8	11,877	48.5	24,474
Native Hawaiian/Other Pacific Islander	6	4.9	37	28.2	43	32.8	45	34.1	132
White	3,058	8.9	5,967	17.4	9,743	28.4	15,570	45.3	34,338
Multiple races	81	6.5	228	18.4	415	33.5	515	41.6	1,239
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	3,789	6.2	9,498	15.7	17,325	28.6	30,045	49.5	60,658
Injection drug use	471	4.8	1,133	11.6	3,703	37.9	4,472	45.7	9,779
Male-to-male sexual contact and injection drug use	301	7.5	659	16.4	1,099	27.4	1,951	48.7	4,010
Heterosexual contact[d]	507	3.9	1,561	11.9	4,681	35.7	6,368	48.5	13,117
Other[e]	16	4.6	43	12.6	210	61.3	73	50.6	342
Female adult or adolescent									
Injection drug use	392	7.2	687	12.7	1,774	32.8	2,563	47.3	5,416
Heterosexual contact[d]	1,836	7.1	3,793	14.6	6,780	26.2	13,512	52.1	25,921
Other[e]	8	2.7	37	12.4	199	66.7	54	18.2	298
Total[f]	**7,319**	**6.1**	**17,412**	**14.6**	**35,769**	**29.9**	**59,038**	**49.4**	**119,539**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected within 3 months after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Hispanics/Latinos can be of any race.

[d] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[e] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 2a. Median count of first CD4 test performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	2005		2006		2007	
	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%
Sex						
Male	171	56–370	171	58–374	182	64–380
Female	182	69–398	182	66–398	192	70–410
Age at diagnosis (yr)						
13–14	178	76–347	313	167–365	164	25–398
15–24	315	167–443	328	168–452	311	161–451
25–34	194	76–398	196	80–398	212	84–404
35–44	166	49–363	167	49–362	167	53–374
45–54	143	45–320	144	44–328	154	49–351
55–64	135	44–298	124	40–254	144	45–327
≥65	133	39–224	124	44–194	144	44–265
Race/ethnicity						
American Indian/Alaska Native	217	63–382	182	53–345	198	79–377
Asian	182	78–362	190	65–357	182	66–353
Black/African American	167	49–358	167	52–362	175	59–370
Hispanic/Latino[a]	151	48–313	151	49–329	160	50–346
Native Hawaiian/Other Pacific Islander	192	106–347	210	78–391	268	114–396
White	214	84–418	226	84–416	239	92–430
Multiple races	220	71–402	156	41–380	162	46–362
Transmission category						
Male adult or adolescent						
Male-to-male sexual contact	182	67–383	182	69–386	189	78–398
Injection drug use	141	37–319	135	37–306	146	39–318
Male-to-male sexual contact and injection drug use	198	78–416	233	86–419	193	77–403
Heterosexual contact[b]	135	36–297	134	38–281	149	40–311
Other[c]	86	24–177	135	34–328	96	28–253
Female adult or adolescent						
Injection drug use	167	52–386	178	58–398	168	53–380
Heterosexual contact[b]	189	78–400	186	72–398	199	76–416
Other[c]	98	26–218	66	29–182	77	28–152
Total	**176**	**60–380**	**176**	**60–380**	**182**	**66–389**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.
When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.
Because this table is based on CD4 data irrespective of the number of diagnoses, statistical adjustments for reporting delays were not necessary.
[a] Hispanics/Latinos can be of any race.
[b] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
[c] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

Table 2b. Median count of first CD4 test performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	2005		2006		2007	
	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%
Sex						
Male	181	62–375	180	63–376	182	68–380
Female	191	79–404	191	77–406	198	74–416
Age at diagnosis (yr)						
13–14	182	94–362	326	167–380	196	25–434
15–24	300	161–434	313	167–444	306	163–446
25–34	199	80–398	208	88–398	220	95–406
35–44	170	57–376	168	54–366	172	58–380
45–54	151	49–330	151	48–341	162	51–355
55–64	146	49–308	135	43–288	151	48–329
≥65	140	43–253	134	46–237	151	47–275
Race/ethnicity						
American Indian/Alaska Native	221	79–398	190	63–345	200	84–380
Asian	182	76–368	190	65–356	182	67–358
Black/African American	171	56–362	172	58–362	180	62–368
Hispanic/Latino[a]	167	55–343	164	56–345	167	56–362
Native Hawaiian/Other Pacific Islander	192	106–347	199	78–391	268	114–396
White	232	97–421	239	94–419	248	99–434
Multiple races	224	74–401	181	48–382	182	50–363
Transmission category						
Male adult or adolescent						
Male-to-male sexual contact	182	75–385	185	77–389	193	82–398
Injection drug use	151	44–343	142	43–313	151	46–328
Male-to-male sexual contact and injection drug use	224	87–416	239	88–416	199	84–403
Heterosexual contact[b]	146	42–301	139	41–285	151	42–313
Other[c]	92	26–184	135	34–321	112	29–275
Female adult or adolescent						
Injection drug use	182	62–398	185	65–411	181	60–389
Heterosexual contact[b]	196	85–409	195	80–407	210	79–417
Other[c]	99	26–250	69	29–187	88	31–190
Total	**182**	**66–380**	**182**	**66–380**	**182**	**70–391**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.
When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.
Because this table is based on CD4 data irrespective of the number of diagnoses, statistical adjustments for reporting delays were not necessary.
[a] Hispanics/Latinos can be of any race.
[b] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
[c] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

Table 2c. Median count of first CD4 test performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	2005		2006		2007	
	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%
Sex						
Male	167	50–362	167	51–368	172	56–377
Female	179	61–392	182	58–393	184	61–398
Age at diagnosis (yr)						
13–14	172	52–286	268	135–330	144	9–398
15–24	313	163–444	332	174–456	313	161–451
25–34	191	67–398	192	72–398	203	75–398
35–44	156	44–357	156	44–362	166	48–366
45–54	135	41–315	137	41–327	146	42–341
55–64	130	41–286	116	37–247	135	42–306
≥65	117	36–192	118	40–194	134	38–263
Race/ethnicity						
American Indian/Alaska Native	195	62–367	180	53–345	199	75–380
Asian	174	55–362	191	54–356	173	50–345
Black/African American	162	43–348	167	46–362	167	50–363
Hispanic/Latino[a]	147	44–310	141	43–325	151	43–340
Native Hawaiian/Other Pacific Islander	184	97–347	199	78–391	268	114–396
White	197	76–416	206	77–415	224	80–420
Multiple races	167	56–380	151	41–372	151	41–362
Transmission category						
Male adult or adolescent						
Male-to-male sexual contact	180	61–380	182	61–384	182	67–391
Injection drug use	135	34–319	128	33–298	135	34–298
Male-to-male sexual contact and injection drug use	182	65–410	214	79–416	195	67–407
Heterosexual contact[b]	127	33–289	124	35–274	139	34–306
Other[c]	72	23–171	135	34–321	96	28–210
Female adult or adolescent						
Injection drug use	160	47–375	167	49–388	160	47–370
Heterosexual contact[b]	182	68–398	182	63–397	194	66–409
Other[c]	100	28–229	64	28–181	76	28–152
Total	**167**	**53–371**	**169**	**53–376**	**177**	**57–380**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.
When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.
Because this table is based on CD4 data irrespective of the number of diagnoses, statistical adjustments for reporting delays were not necessary.
[a] Hispanics/Latinos can be of any race.
[b] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
[c] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

Table 2d. Median count of first CD4 test performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	2005		2006		2007	
	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%
Sex						
Male	167	50–362	167	51–368	173	56–378
Female	179	61–393	182	58–395	186	61–399
Age at diagnosis (yr)						
13–14	172	76–286	277	135–380	144	9–398
15–24	313	162–444	330	174–456	313	164–451
25–34	192	66–398	195	72–398	208	76–399
35–44	156	44–358	156	44–362	166	48–367
45–54	135	41–315	138	41–328	146	43–342
55–64	129	42–284	117	38–251	135	42–306
≥65	117	36–192	118	38–196	135	41–268
Race/ethnicity						
American Indian/Alaska Native	195	62–367	180	53–345	199	75–380
Asian	174	55–362	191	54–356	173	50–345
Black/African American	162	43–348	167	46–362	167	50–363
Hispanic/Latino[a]	149	45–316	147	44–332	154	45–348
Native Hawaiian/Other Pacific Islander	184	97–347	199	78–391	268	114–396
White	197	76–416	206	77–415	224	80–420
Multiple races	167	56–380	151	41–372	151	41–362
Transmission category						
Male adult or adolescent						
Male-to-male sexual contact	180	60–380	182	61–384	182	67–391
Injection drug use	135	35–325	128	34–298	139	36–306
Male-to-male sexual contact and injection drug use	183	65–410	220	79–416	190	66–407
Heterosexual contact[b]	128	34–290	124	35–274	141	35–312
Other[c]	75	23–172	124	34–321	94	28–210
Female adult or adolescent						
Injection drug use	161	49–380	169	51–391	164	47–376
Heterosexual contact[b]	182	67–398	183	63–397	195	66–410
Other[c]	100	29–231	64	28–181	77	28–159
Total	**167**	**53–371**	**169**	**53–377**	**178**	**57–381**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.
When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.
Because this table is based on CD4 data irrespective of the number of diagnoses, statistical adjustments for reporting delays were not necessary.
[a] Hispanics/Latinos can be of any race.
[b] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
[c] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

Table 3a. Median count of first CD4 test performed within 12 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS) CD4 <200 cells/µL		Stage unknown No CD4 information	
	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Est. No.[a]	%
Sex								
Male	698	589–864	355	290–416	78	24–151	34,797	40.8
Female	721	599–902	354	286–415	79	23–151	13,141	43.1
Age at diagnosis (yr)								
13–14	621	535–729	361	313–380	88	6–164	46	37.2
15–24	692	587–851	361	298–416	127	43–168	9,384	53.4
25–34	692	585–854	354	292–415	82	23–151	13,616	45.3
35–44	708	594–881	354	287–416	70	22–145	13,880	38.6
45–54	722	600–905	351	283–413	74	23–144	8,021	35.3
55–64	745	606–917	352	283–412	71	26–143	2,342	32.5
≥65	734	607–916	346	275–416	88	29–155	650	31.7
Race/ethnicity								
American Indian/Alaska Native	687	580–990	345	290–396	72	27–151	181	32.7
Asian	674	571–811	346	283–398	85	24–155	426	39.1
Black/African American	702	588–882	349	283–412	76	20–151	25,544	44.3
Hispanic/Latino[b]	701	597–853	352	290–415	76	25–147	8,475	40.8
Native Hawaiian/Other Pacific Islander	584	567–684	358	313–404	99	44–135	34	26.6
White	709	597–876	362	298–416	84	30–151	12,903	37.6
Multiple races	746	608–948	345	290–416	64	20–131	376	30.4
Transmission category								
Male adult or adolescent								
Male-to-male sexual contact	696	588–853	357	293–416	82	26–151	24,991	41.8
Injection drug use	714	599–922	349	283–415	67	20–141	3,199	36.7
Male-to-male sexual contact and injection drug use	693	604–872	363	302–416	83	26–152	1,507	38.7
Heterosexual contact[c]	704	585–887	345	274–406	68	20–142	5,037	40.4
Other[d]	655	590–733	321	275–438	52	20–132	63	18.5
Female adult or adolescent								
Injection drug use	729	602–934	362	285–416	73	22–148	2,044	39.4
Heterosexual contact[c]	719	599–901	353	286–415	82	24–151	11,049	44.2
Other[d]	599	558–970	328	253–416	54	20–117	48	16.2
Total[e]	**704**	**593–876**	**355**	**289–416**	**78**	**24–151**	**47,939**	**41.4**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

[a] Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[b] Hispanics/Latinos can be of any race.

[c] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[e] Because of rounding, the values in the Stage unknown column may not sum to the column total.

Table 3b. Median count of first CD4 test performed within 12 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS) CD4 <200 cells/µL		Stage unknown No CD4 information	
	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Est. No.[a]	%
Sex								
Male	699	589–865	355	290–416	78	24–151	36,033	41.0
Female	720	599–902	354	286–415	79	23–151	13,589	43.0
Age at diagnosis (yr)								
13–14	675	535–738	361	313–380	94	6–164	48	37.1
15–24	690	587–851	361	298–416	127	43–168	9,593	53.5
25–34	693	584–858	353	292–415	82	23–151	14,123	45.5
35–44	707	595–880	355	288–416	70	22–145	14,393	38.8
45–54	725	600–907	351	283–412	74	23–144	8,328	35.3
55–64	745	608–924	351	283–410	72	26–142	2,447	32.5
≥65	735	610–990	346	277–416	88	29–155	690	31.6
Race/ethnicity								
American Indian/Alaska Native	687	580–990	345	290–396	72	27–151	181	32.7
Asian	674	571–811	346	283–398	85	24–155	431	39.4
Black/African American	702	588–882	349	283–412	76	20–151	25,604	44.4
Hispanic/Latino[b]	705	596–861	353	291–414	75	25–147	10,086	41.2
Native Hawaiian/Other Pacific Islander	584	567–684	358	313–404	99	44–135	39	29.1
White	709	597–876	362	298–416	84	30–151	12,905	37.6
Multiple races	746	608–948	345	290–416	64	20–131	376	30.4
Transmission category								
Male adult or adolescent								
Male-to-male sexual contact	696	588–853	357	293–416	82	26–151	25,335	41.8
Injection drug use	714	599–920	349	285–416	67	20–142	3,755	38.4
Male-to-male sexual contact and injection drug use	693	601–872	363	303–416	81	27–151	1,560	38.9
Heterosexual contact[c]	706	586–899	345	274–406	69	20–142	5,321	40.6
Other[d]	643	587–733	321	275–438	51	20–132	63	18.4
Female adult or adolescent								
Injection drug use	732	605–950	362	287–416	74	22–147	2,146	39.6
Heterosexual contact[c]	715	597–898	352	286–415	80	24–151	11,395	44.0
Other[d]	609	558–970	328	250–416	54	20–115	48	16.0
Total[e]	**705**	**593–878**	**355**	**289–416**	**78**	**24–151**	**49,622**	**41.5**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.
When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.
[a] Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.
[b] Hispanics/Latinos can be of any race.
[c] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.
[e] Because of rounding, the values in the Stage unknown column may not sum to the column total.

Table 3c. Median count of first CD4 test performed within 3 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS) CD4 <200 cells/µL		Stage unknown No CD4 information	
	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Median count, cells/µL	25%–75%	Est. No.[a]	%
Sex								
Male	698	590–864	353	289–416	71	22–145	41,457	48.6
Female	720	600–901	352	283–415	73	22–146	15,570	51.1
Age at diagnosis (yr)								
13–14	675	535–729	347	286–380	88	6–164	56	45.3
15–24	688	587–847	358	296–416	117	36–167	10,964	62.4
25–34	694	588–858	353	291–415	76	21–151	16,077	53.4
35–44	703	594–876	352	286–416	65	21–139	16,662	46.3
45–54	722	600–903	351	283–412	68	22–138	9,676	42.6
55–64	727	605–916	351	281–411	67	24–137	2,813	39.0
≥65	740	623–916	345	275–416	81	27–151	779	38.0
Race/ethnicity								
American Indian/Alaska Native	687	578–996	345	296–396	70	27–148	226	40.8
Asian	679	580–858	343	283–398	65	20–147	538	49.4
Black/African American	699	588–880	350	283–413	68	20–146	30,201	52.4
Hispanic/Latino[b]	704	599–854	349	288–412	69	23–140	9,939	47.9
Native Hawaiian/Other Pacific Islander	584	567–684	369	313–404	90	32–124	41	31.7
White	708	598–875	361	295–416	79	28–150	15,567	45.3
Multiple races	739	598–940	345	291–416	61	20–126	515	41.6
Transmission category								
Male adult or adolescent								
Male-to-male sexual contact	695	589–856	354	292–416	76	24–150	29,637	49.5
Injection drug use	712	597–913	351	283–412	62	20–135	3,828	43.9
Male-to-male sexual contact and injection drug use	692	604–861	362	308–416	77	24–151	1,882	48.4
Heterosexual contact[c]	704	587–883	345	272–407	62	20–135	6,037	48.5
Other[d]	655	590–819	328	277–435	52	20–132	73	21.6
Female adult or adolescent								
Injection drug use	729	610–928	362	288–414	68	21–141	2,436	46.9
Heterosexual contact[c]	718	600–896	350	283–415	75	22–148	13,080	52.3
Other[d]	569	558–970	328	253–416	54	20–115	54	18.4
Total[e]	**703**	**593–875**	**353**	**288–415**	**71**	**22–146**	**57,028**	**49.3**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

[a] Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[b] Hispanics/Latinos can be of any race.

[c] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[e] Because of rounding, the values in the Stage unknown column may not sum to the column total.

Table 3d. Median count of first CD4 test performed within 3 months after diagnosis of HIV infection, by stage of infection and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/μL		Stage 2 CD4 200–499 cells/μL		Stage 3 (AIDS) CD4 <200 cells/μL		Stage unknown No CD4 information	
	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Median count, cells/μL	25%–75%	Est. No.[a]	%
Sex								
Male	699	590–864	353	289–415	71	22–145	42,909	48.8
Female	719	600–900	352	284–415	72	22–146	16,129	51.0
Age at diagnosis (yr)								
13–14	675	512–738	347	286–380	94	6–164	59	45.6
15–24	688	587–847	359	296–416	117	36–167	11,209	62.5
25–34	694	587–858	352	291–415	76	21–151	16,684	53.7
35–44	702	594–877	352	286–416	65	21–139	17,262	46.5
45–54	723	600–906	351	283–411	68	22–138	10,052	42.6
55–64	734	606–920	350	280–410	68	24–137	2,940	39.0
≥65	749	618–960	345	275–412	80	27–151	832	38.1
Race/ethnicity								
American Indian/Alaska Native	687	578–996	345	296–396	70	27–148	226	40.8
Asian	679	580–858	343	283–398	65	20–147	544	49.7
Black/African American	699	588–880	350	283–413	68	20–146	30,261	52.4
Hispanic/Latino[b]	706	597–861	350	289–412	69	23–140	11,877	48.5
Native Hawaiian/Other Pacific Islander	584	567–684	369	313–404	90	32–124	45	34.1
White	708	598–875	361	295–416	79	28–150	15,570	45.3
Multiple races	739	598–940	345	291–416	61	20–126	515	41.6
Transmission category								
Male adult or adolescent								
Male-to-male sexual contact	696	589–857	354	292–416	75	24–150	30,045	49.5
Injection drug use	712	596–910	351	283–416	62	20–136	4,472	45.7
Male-to-male sexual contact and injection drug use	691	600–857	362	309–416	76	24–150	1,951	48.7
Heterosexual contact[c]	706	587–893	345	272–406	62	20–135	6,368	48.5
Other[d]	655	587–757	328	277–435	51	20–132	73	21.5
Female adult or adolescent								
Injection drug use	732	612–938	362	287–414	68	21–140	2,563	47.3
Heterosexual contact[c]	715	599–896	350	284–415	74	22–148	13,512	52.1
Other[d]	652	558–970	328	253–416	54	20–113	54	18.2
Total[e]	**704**	**593–876**	**353**	**288–415**	**71**	**22–146**	**59,038**	**49.4**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

[a] Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[b] Hispanics/Latinos can be of any race.

[c] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[e] Because of rounding, the values in the Stage unknown column may not sum to the column total.

Table 4a. Adults and adolescents living with a diagnosis of HIV infection, by most severe stage and selected characteristics, year-end 2007—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	25,299	6.0	64,843	15.4	247,772	58.9	82,789	19.7	420,703
Female	12,388	7.9	24,863	15.9	85,569	54.6	33,926	21.6	156,746
Age as of end of year (yr)									
13–14	247	19.8	237	19.0	655	52.5	109	8.8	1,248
15–24	1,947	8.4	5,110	22.1	8,116	35.1	7,936	34.3	23,110
25–34	6,603	7.8	17,598	20.8	35,745	42.2	24,754	29.2	84,700
35–44	13,281	6.9	30,965	16.0	110,465	57.0	38,988	20.1	193,699
45–54	11,209	5.9	25,210	13.4	120,685	64.0	31,411	16.7	188,515
55–64	3,579	5.2	8,544	12.5	45,703	66.8	10,548	15.4	68,374
≥65	822	4.6	2,042	11.5	11,972	67.2	2,967	16.7	17,803
Race/ethnicity									
American Indian/Alaska Native	159	6.9	474	20.7	1,280	55.7	382	16.7	2,296
Asian[c]	157	4.8	600	18.2	1,822	55.4	710	21.6	3,290
Black/African American	16,673	6.1	40,129	14.6	157,408	57.4	60,255	22.0	274,464
Hispanic/Latino[d]	4,587	4.6	12,846	12.9	61,823	62.0	20,531	20.6	99,787
Native Hawaiian/Other Pacific Islander	15	6.1	58	23.6	112	45.6	61	24.7	245
White	15,789	8.2	34,616	18.1	107,672	56.2	33,547	17.5	191,625
Multiple races	307	5.3	984	17.1	3,224	56.1	1,228	21.4	5,743
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	17,210	6.5	44,588	16.8	147,821	55.7	55,715	21.0	265,334
Injection drug use	3,308	4.8	8,224	12.0	46,279	67.5	10,721	15.6	68,532
Male-to-male sexual contact and injection drug use	1,929	6.4	4,609	15.3	19,160	63.8	4,341	14.5	30,038
Heterosexual contact[e]	2,444	4.8	6,580	12.9	30,649	59.9	11,478	22.4	51,151
Other[r]	409	7.2	843	14.9	3,863	68.4	534	9.4	5,649
Female adult or adolescent									
Injection drug use	2,794	7.0	5,338	13.3	25,132	62.5	6,933	17.2	40,197
Heterosexual contact[e]	9,134	8.2	18,841	16.9	57,129	51.2	26,527	23.8	111,631
Other[r]	460	9.3	684	13.9	3,308	67.3	467	9.5	4,919
Total[g]	**37,688**	**6.5**	**89,707**	**15.5**	**333,341**	**57.7**	**116,714**	**20.2**	**577,450**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected at any time after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Includes Asian/Pacific Islander legacy cases (see Technical Notes).

[d] Hispanics/Latinos can be of any race.

[e] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[f] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[g] Because of rounding, the values in each column may not sum to the column total.

Table 4b. Adults and adolescents living with a diagnosis of HIV infection, by most severe stage and selected characteristics, year-end 2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Stage unknown No CD4 information		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[b]
Sex									
Male	26,156	6.0	66,668	15.4	256,380	59.1	84,741	19.5	433,944
Female	13,001	8.0	25,850	15.9	89,251	54.8	34,781	21.4	162,884
Age as of end of year (yr)									
13–14	254	19.7	248	19.3	673	52.2	114	8.8	1,289
15–24	2,015	8.5	5,259	22.1	8,378	35.3	8,094	34.1	23,747
25–34	6,964	8.0	18,205	20.8	36,834	42.1	25,469	29.1	87,473
35–44	13,801	6.9	31,919	16.0	114,344	57.2	39,906	20.0	199,969
45–54	11,563	5.9	25,965	13.3	125,131	64.2	32,104	16.5	194,763
55–64	3,699	5.2	8,789	12.4	47,593	67.2	10,780	15.2	70,860
≥65	860	4.6	2,134	11.4	12,678	67.7	3,054	16.3	18,727
Race/ethnicity									
American Indian/Alaska Native	159	6.9	474	20.6	1,281	55.7	384	16.7	2,298
Asian[c]	157	4.7	600	17.8	1,846	54.7	770	22.8	3,373
Black/African American	16,676	6.1	40,130	14.6	157,533	57.3	60,469	22.0	274,809
Hispanic/Latino[d]	6,052	5.1	15,653	13.2	73,905	62.3	23,026	19.4	118,637
Native Hawaiian/Other Pacific Islander	15	5.9	59	23.4	115	45.7	63	24.9	251
White	15,790	8.2	34,617	18.1	107,720	56.2	33,580	17.5	191,708
Multiple races	307	5.3	984	17.1	3,232	56.2	1,231	21.4	5,753
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	17,434	6.5	45,088	16.8	149,976	55.8	56,198	20.9	268,696
Injection drug use	3,701	5.0	9,063	12.1	50,263	67.3	11,665	15.6	74,692
Male-to-male sexual contact and injection drug use	1,993	6.4	4,720	15.2	19,899	64.1	4,425	14.3	31,037
Heterosexual contact[e]	2,604	4.8	6,928	12.9	32,248	60.1	11,909	22.2	53,689
Other[r]	424	7.3	870	14.9	3,993	68.5	544	9.3	5,830
Female adult or adolescent									
Injection drug use	2,940	7.0	5,576	13.3	26,208	62.6	7,145	17.1	41,869
Heterosexual contact[e]	9,589	8.3	19,559	16.9	59,622	51.4	27,158	23.4	115,927
Other[r]	472	9.3	715	14.1	3,422	67.3	478	9.4	5,088
Total[g]	**39,157**	**6.6**	**92,519**	**15.5**	**345,631**	**57.9**	**119,522**	**20.0**	**596,828**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected at any time after diagnosis.

[b] Because of rounding, the values in each row may not sum to the row total.

[c] Includes Asian/Pacific Islander legacy cases (see Technical Notes).

[d] Hispanics/Latinos can be of any race.

[e] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[f] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.

[g] Because of rounding, the values in each column may not sum to the column total.

Table 5a. Time from diagnosis of HIV infection in 2005 or 2006 to first CD4 test result, by stage, through December 2009—37 states with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Known, Subtotal	Known, Cumulative	
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	Est. No.	%
Time (mos)									
0	2,509	10.2	6,142	25.0	15,954	64.8	24,605	24,605	32.6
1	1,362	14.4	3,275	34.5	4,847	51.1	9,484	34,089	45.2
2–3	697	14.4	1,677	34.7	2,461	50.9	4,835	38,924	51.6
4–6	410	14.4	1,001	35.1	1,443	50.6	2,854	41,778	55.4
7–12	461	15.0	1,083	35.2	1,533	49.8	3,077	44,855	59.5
13–18	322	16.6	650	33.5	969	49.9	1,941	46,796	62.0
19–24	257	15.9	507	31.4	853	52.8	1,617	48,413	64.2
Total, 0–24+	**6,018**	**12.4**	**14,335**	**29.6**	**28,060**	**58.0**	**48,413**	**48,413**	**64.2**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected at any time after diagnosis.

Table 5b. Time from diagnosis of HIV infection in 2005 or 2006 to first CD4 test result, by stage, through December 2009—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	Stage 1 CD4 ≥500 cells/µL		Stage 2 CD4 200–499 cells/µL		Stage 3 (AIDS)[a] CD4 <200 cells/µL		Known, Subtotal	Known, Cumulative	
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	Est. No.	%
Time (mos)									
0	2,561	10.1	6,243	24.7	16,480	65.2	25,284	25,284	32.4
1	1,411	14.4	3,374	34.4	5,009	51.1	9,794	35,078	44.9
2–3	742	14.6	1,754	34.5	2,583	50.9	5,078	40,156	51.4
4–6	431	14.6	1,027	34.7	1,500	50.7	2,958	43,114	55.2
7–12	483	15.1	1,128	35.2	1,591	49.7	3,202	46,316	59.3
13–18	340	16.8	684	33.8	997	49.3	2,021	48,337	61.9
19–24	274	16.2	540	31.9	879	51.9	1,693	50,030	64.1
Total, 0–24+	**6,242**	**12.5**	**14,750**	**29.5**	**29,039**	**58.0**	**50,030**	**50,030**	**64.1**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] Includes all cases classified as stage 3 (AIDS), regardless of how the case definition was satisfied. Thus, this column includes cases in persons with at least one of 26 opportunistic illnesses, even without CD4 test results from specimens collected at any time after diagnosis.

Table 6a. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2005				
Sex									
Male	4,123	14.8	12,426	44.6	2,792	10.0	8,534	30.6	27,875
Female	1,404	13.8	4,334	42.5	1,144	11.2	3,313	32.5	10,196
Age at diagnosis (yr)									
13–14	5	12.7	21	51.1	5	13.1	10	23.2	42
15–24	466	8.7	2,054	38.6	585	11.0	2,221	41.7	5,326
25–34	1,275	12.7	4,294	42.6	1,126	11.2	3,377	33.5	10,072
35–44	1,891	15.4	5,581	45.3	1,260	10.2	3,578	29.1	12,310
45–54	1,313	18.0	3,404	46.7	692	9.5	1,885	25.8	7,295
55–64	432	18.4	1,118	47.6	210	8.9	591	25.2	2,351
≥65	145	21.4	288	42.7	58	8.5	185	27.4	675
Race/ethnicity									
American Indian/Alaska Native	21	11.6	101	55.3	10	5.3	51	27.8	183
Asian	33	9.7	155	46.4	49	14.7	98	29.2	335
Black/African American	2,926	15.5	7,684	40.7	1,668	8.8	6,617	35.0	18,896
Hispanic/Latino[b]	926	13.7	2,988	44.4	855	12.7	1,968	29.2	6,738
Native Hawaiian/Other Pacific Islander	10	21.3	28	61.9	2	4.8	5	12.0	45
White	1,567	13.7	5,514	48.4	1,312	11.5	3,007	26.4	11,399
Multiple races	45	9.4	289	60.8	40	8.5	101	21.3	475
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,652	13.8	8,523	44.4	2,074	10.8	5,925	30.9	19,174
Injection drug use	529	17.1	1,409	45.6	297	9.6	857	27.7	3,092
Male-to-male sexual contact and injection drug use	199	14.0	709	50.0	112	7.9	399	28.1	1,419
Heterosexual contact[c]	711	17.5	1,718	42.3	304	7.5	1,331	32.8	4,064
Other[d]	32	25.8	67	53.8	5	4.3	20	16.2	125
Female adult or adolescent									
Injection drug use	274	14.6	829	44.0	213	11.3	568	30.1	1,883
Heterosexual contact[c]	1,102	13.4	3,450	42.1	924	11.3	2,725	33.2	8,201
Other[d]	29	25.7	55	49.7	7	6.3	20	18.3	111
Total[e]	**5,527**	**14.5**	**16,760**	**44.0**	**3,936**	**10.3**	**11,847**	**31.1**	**38,070**

Table 6a. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2006				
Sex									
Male	4,046	14.7	11,963	43.6	2,950	10.7	8,492	30.9	27,451
Female	1,346	13.6	4,158	42.0	1,145	11.6	3,256	32.9	9,905
Age at diagnosis (yr)									
13–14	9	18.2	20	42.6	5	11.4	13	27.8	47
15–24	538	9.4	2,103	36.6	728	12.7	2,372	41.3	5,741
25–34	1,194	12.3	4,007	41.4	1,156	11.9	3,319	34.3	9,676
35–44	1,812	15.4	5,306	45.1	1,271	10.8	3,379	28.7	11,767
45–54	1,257	17.3	3,369	46.3	707	9.7	1,945	26.7	7,278
55–64	454	20.5	1,020	46.0	185	8.3	557	25.1	2,216
≥65	128	20.3	296	46.9	44	7.0	163	25.9	631
Race/ethnicity									
American Indian/Alaska Native	23	13.7	81	49.0	19	11.3	43	26.0	166
Asian	33	9.9	170	51.5	59	17.8	69	20.8	330
Black/African American	2,802	15.0	7,380	39.4	1,822	9.7	6,708	35.8	18,712
Hispanic/Latino[b]	921	13.6	3,027	44.7	927	13.7	1,890	27.9	6,765
Native Hawaiian/Other Pacific Islander	9	20.0	16	37.5	5	12.6	13	29.9	43
White	1,557	14.2	5,252	47.8	1,235	11.2	2,948	26.8	10,991
Multiple races	49	14.0	194	55.5	29	8.3	78	22.2	349
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,693	14.0	8,366	43.5	2,212	11.5	5,961	31.0	19,231
Injection drug use	422	15.2	1,281	46.0	284	10.2	797	28.6	2,784
Male-to-male sexual contact and injection drug use	178	14.1	566	45.1	116	9.2	395	31.5	1,255
Heterosexual contact[c]	727	17.9	1,681	41.5	329	8.1	1,313	32.4	4,051
Other[d]	27	20.8	68	52.8	8	6.2	26	20.2	130
Female adult or adolescent									
Injection drug use	222	13.3	759	45.3	190	11.4	504	30.1	1,675
Heterosexual contact[c]	1,106	13.6	3,341	41.0	949	11.7	2,744	33.7	8,140
Other[d]	18	20.2	58	65.0	6	6.2	8	8.5	90
Total[e]	**5,392**	**14.4**	**16,121**	**43.2**	**4,095**	**11.0**	**11,748**	**31.4**	**37,357**

Table 6a. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2007				
Sex									
Male	3,824	12.8	12,979	43.4	3,865	12.9	9,246	30.9	29,914
Female	1,321	12.7	4,389	42.3	1,364	13.1	3,311	31.9	10,385
Age at diagnosis (yr)									
13–14	2	6.3	17	51.3	4	13.1	10	29.3	34
15–24	577	8.9	2,347	36.2	820	12.6	2,747	42.3	6,490
25–34	1,185	11.5	4,256	41.2	1,336	12.9	3,560	34.4	10,336
35–44	1,554	13.1	5,457	45.9	1,548	13.0	3,330	28.0	11,889
45–54	1,193	14.6	3,781	46.3	1,071	13.1	2,115	25.9	8,160
55–64	485	18.3	1,196	45.2	352	13.3	613	23.2	2,646
≥65	150	20.1	314	42.3	97	13.1	182	24.4	743
Race/ethnicity									
American Indian/Alaska Native	25	12.2	111	54.2	27	13.1	42	20.5	204
Asian	54	12.7	206	48.5	64	15.2	100	23.6	424
Black/African American	2,768	13.8	7,824	39.1	2,196	11.0	7,238	36.1	20,025
Hispanic/Latino[b]	899	12.4	3,219	44.4	998	13.8	2,134	29.4	7,250
Native Hawaiian/Other Pacific Islander	7	16.9	21	54.5	3	8.6	8	20.0	39
White	1,325	11.1	5,772	48.3	1,907	16.0	2,937	24.6	11,941
Multiple races	67	16.1	216	52.2	33	7.9	98	23.7	414
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,574	12.0	9,336	43.6	2,904	13.6	6,611	30.9	21,425
Injection drug use	401	14.1	1,301	45.7	351	12.3	792	27.9	2,844
Male-to-male sexual contact and injection drug use	153	12.5	548	44.9	141	11.5	377	31.0	1,218
Heterosexual contact[c]	675	15.6	1,752	40.3	462	10.6	1,454	33.5	4,343
Other[d]	20	24.3	43	51.5	8	9.5	12	14.8	84
Female adult or adolescent									
Injection drug use	236	14.4	728	44.5	206	12.6	464	28.4	1,634
Heterosexual contact[c]	1,066	12.3	3,608	41.7	1,148	13.3	2,835	32.7	8,657
Other[d]	20	21.1	53	56.7	9	9.5	12	12.7	93
Total[e]	**5,145**	**12.8**	**17,368**	**43.1**	**5,229**	**13.0**	**12,557**	**31.2**	**40,298**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting.
Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, not but for incomplete reporting.
[a] Because of rounding, the values in each row may not sum to the row total.
[b] Hispanics/Latinos can be of any race.
[c] Heterosexual contact with a person know to have, or to be at high risk for, HIV infection.
[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.
[e] Because of rounding, the values in each column may not sum to the column total.

Table 6b. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2005				
Sex									
Male	4,334	15.0	12,662	43.9	2,808	9.7	9,043	31.3	28,846
Female	1,501	14.2	4,451	42.0	1,152	10.9	3,501	33.0	10,605
Age at diagnosis (yr)									
13–14	6	14.5	22	51.0	5	12.4	10	22.0	44
15–24	485	8.9	2,084	38.1	589	10.8	2,307	42.2	5,465
25–34	1,327	12.7	4,384	42.1	1,134	10.9	3,570	34.3	10,414
35–44	1,987	15.6	5,687	44.7	1,268	10.0	3,795	29.8	12,737
45–54	1,394	18.4	3,487	46.0	693	9.1	2,004	26.4	7,578
55–64	471	19.0	1,151	46.3	213	8.6	652	26.2	2,487
≥65	163	22.5	298	41.0	59	8.1	207	28.5	727
Race/ethnicity									
American Indian/Alaska Native	21	11.6	101	55.3	10	5.3	51	27.8	183
Asian	33	9.7	155	46.2	49	14.6	99	29.5	336
Black/African American	2,926	15.5	7,684	40.6	1,668	8.8	6,637	35.1	18,915
Hispanic/Latino[b]	1,233	15.2	3,341	41.3	879	10.9	2,641	32.6	8,094
Native Hawaiian/Other Pacific Islander	10	20.8	28	60.4	2	4.7	7	14.1	46
White	1,567	13.7	5,514	48.4	1,312	11.5	3,009	26.4	11,401
Multiple races	45	9.4	289	60.8	40	8.5	101	21.3	475
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,719	14.0	8,591	44.2	2,078	10.7	6,061	31.2	19,449
Injection drug use	602	17.2	1,501	42.9	302	8.6	1,097	31.3	3,503
Male-to-male sexual contact and injection drug use	209	14.2	721	49.1	114	7.8	425	28.9	1,468
Heterosexual contact[c]	770	17.9	1,782	41.4	309	7.2	1,439	33.5	4,300
Other[d]	34	26.4	67	53.1	5	4.2	21	16.2	127
Female adult or adolescent									
Injection drug use	291	14.8	851	43.2	214	10.8	614	31.2	1,970
Heterosexual contact[c]	1,180	13.8	3,543	41.6	932	10.9	2,867	33.6	8,521
Other[d]	30	26.2	56	49.7	7	6.1	20	18.0	113
Total[e]	**5,834**	**14.8**	**17,113**	**43.4**	**3,960**	**10.0**	**12,544**	**31.8**	**39,451**

Table 6b. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2006				
Sex									
Male	4,245	15.0	12,137	42.8	2,963	10.5	8,989	31.7	28,334
Female	1,451	14.1	4,273	41.6	1,153	11.2	3,407	33.1	10,283
Age at diagnosis (yr)									
13–14	10	19.2	21	42.0	5	10.6	14	28.2	50
15–24	555	9.5	2,129	36.4	731	12.5	2,427	41.5	5,842
25–34	1,262	12.6	4,084	40.7	1,160	11.6	3,517	35.1	10,023
35–44	1,910	15.7	5,389	44.4	1,274	10.5	3,577	29.4	12,150
45–54	1,334	17.6	3,437	45.4	714	9.4	2,080	27.5	7,564
55–64	483	20.9	1,041	45.0	188	8.1	601	26.0	2,313
≥65	143	21.1	310	45.8	44	6.5	180	26.6	677
Race/ethnicity									
American Indian/Alaska Native	23	13.7	81	49.0	19	11.3	43	26.0	166
Asian	33	9.8	170	51.2	59	17.7	71	21.3	332
Black/African American	2,802	15.0	7,380	39.4	1,822	9.7	6,733	35.9	18,737
Hispanic/Latino[b]	1,224	15.3	3,315	41.5	948	11.9	2,510	31.4	7,997
Native Hawaiian/Other Pacific Islander	9	19.5	16	36.6	5	12.3	14	31.6	44
White	1,557	14.2	5,254	47.8	1,235	11.2	2,948	26.8	10,993
Multiple races	49	14.0	194	55.5	29	8.3	78	22.2	349
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,759	14.2	8,433	43.3	2,216	11.4	6,089	31.2	19,497
Injection drug use	476	15.2	1,340	42.8	291	9.3	1,027	32.8	3,133
Male-to-male sexual contact and injection drug use	188	14.6	578	44.7	116	9.0	409	31.7	1,291
Heterosexual contact[c]	794	18.5	1,718	40.1	331	7.7	1,438	33.6	4,281
Other[d]	28	21.4	69	52.4	8	6.2	26	20.0	131
Female adult or adolescent									
Injection drug use	239	13.6	779	44.3	194	11.0	546	31.1	1,758
Heterosexual contact[c]	1,193	14.1	3,436	40.7	954	11.3	2,852	33.8	8,435
Other[d]	18	20.1	58	64.7	6	6.2	8	9.0	90
Total[e]	**5,695**	**14.7**	**16,410**	**42.5**	**4,117**	**10.7**	**12,396**	**32.1**	**38,618**

Table 6b. Laboratory tests performed within 12 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2007				
Sex									
Male	4,013	13.1	13,185	42.9	3,876	12.6	9,650	31.4	30,724
Female	1,413	13.1	4,501	41.9	1,369	12.7	3,462	32.2	10,746
Age at diagnosis (yr)									
13–14	2	6.1	17	49.6	4	12.7	11	31.7	35
15–24	597	9.0	2,390	36.1	822	12.4	2,815	42.5	6,624
25–34	1,244	11.7	4,339	40.8	1,342	12.6	3,705	34.9	10,630
35–44	1,636	13.4	5,537	45.3	1,553	12.7	3,494	28.6	12,219
45–54	1,278	15.1	3,852	45.6	1,074	12.7	2,235	26.5	8,438
55–64	513	18.7	1,223	44.6	353	12.9	651	23.8	2,741
≥65	155	19.9	328	42.0	97	12.4	201	25.7	782
Race/ethnicity									
American Indian/Alaska Native	25	12.2	111	54.2	27	13.1	42	20.5	204
Asian	54	12.7	206	48.2	64	15.1	102	24.0	426
Black/African American	2,768	13.8	7,825	39.0	2,196	10.9	7,267	36.2	20,056
Hispanic/Latino[b]	1,180	14.1	3,534	42.2	1,015	12.1	2,655	31.7	8,383
Native Hawaiian/Other Pacific Islander	7	16.0	21	51.5	3	8.2	10	24.4	42
White	1,325	11.1	5,773	48.3	1,907	16.0	2,938	24.6	11,944
Multiple races	67	16.1	216	52.2	33	7.9	98	23.7	414
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,648	12.2	9,433	43.4	2,909	13.4	6,721	31.0	21,711
Injection drug use	459	14.6	1,357	43.2	354	11.3	972	30.9	3,142
Male-to-male sexual contact and injection drug use	160	12.8	557	44.6	142	11.3	391	31.3	1,251
Heterosexual contact[c]	726	16.0	1,794	39.6	463	10.2	1,552	34.2	4,535
Other[d]	20	24.1	43	51.3	8	9.4	13	15.1	84
Female adult or adolescent									
Injection drug use	238	14.1	746	44.2	208	12.3	495	29.3	1,688
Heterosexual contact[c]	1,155	12.9	3,701	41.3	1,153	12.9	2,955	33.0	8,964
Other[d]	20	20.8	54	57.2	9	9.4	12	12.6	94
Total[e]	**5,426**	**13.1**	**17,686**	**42.6**	**5,245**	**12.6**	**13,112**	**31.6**	**41,470**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting.
Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, not but for incomplete reporting.
[a] Because of rounding, the values in each row may not sum to the row total.
[b] Hispanics/Latinos can be of any race.
[c] Heterosexual contact with a person know to have, or to be at high risk for, HIV infection.
[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.
[e] Because of rounding, the values in each column may not sum to the column total.

Table 6c. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
2005									
Sex									
Male	4,103	14.7	10,234	36.7	2,722	9.8	10,815	38.8	27,875
Female	1,451	14.2	3,453	33.9	1,097	10.8	4,194	41.1	10,196
Age at diagnosis (yr)									
13–14	7	17.9	18	43.2	5	13.0	11	25.8	42
15–24	471	8.8	1,586	29.8	537	10.1	2,731	51.3	5,326
25–34	1,237	12.3	3,462	34.4	1,053	10.5	4,319	42.9	10,072
35–44	1,890	15.4	4,608	37.4	1,241	10.1	4,570	37.1	12,310
45–54	1,353	18.6	2,819	38.6	710	9.7	2,412	33.1	7,295
55–64	452	19.2	954	40.6	206	8.8	739	31.4	2,351
≥65	144	21.3	239	35.4	66	9.8	226	33.5	675
Race/ethnicity									
American Indian/Alaska Native	18	9.9	86	47.2	12	6.4	67	36.6	183
Asian	33	9.7	123	36.6	48	14.4	132	39.3	335
Black/African American	2,936	15.5	6,144	32.5	1,594	8.4	8,222	43.5	18,896
Hispanic/Latino[b]	913	13.6	2,487	36.9	781	11.6	2,556	37.9	6,738
Native Hawaiian/Other Pacific Islander	12	25.9	20	45.2	1	2.4	12	26.5	45
White	1,588	13.9	4,611	40.5	1,335	11.7	3,864	33.9	11,399
Multiple races	54	11.4	216	45.4	49	10.3	156	32.9	475
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,635	13.7	7,080	36.9	2,017	10.5	7,442	38.8	19,174
Injection drug use	553	17.9	1,143	37.0	291	9.4	1,105	35.7	3,092
Male-to-male sexual contact and injection drug use	192	13.5	550	38.7	115	8.1	563	39.7	1,419
Heterosexual contact[c]	692	17.0	1,399	34.4	296	7.3	1,676	41.2	4,064
Other[d]	31	25.0	62	49.7	3	2.3	29	23.1	125
Female adult or adolescent									
Injection drug use	298	15.8	663	35.2	195	10.3	727	38.6	1,883
Heterosexual contact[c]	1,124	13.7	2,740	33.4	895	10.9	3,443	42.0	8,201
Other[d]	29	26.1	50	45.2	8	6.8	24	21.9	111
Total[e]	**5,554**	**14.6**	**13,687**	**36.0**	**3,820**	**10.0**	**15,009**	**39.4**	**38,070**

Table 6c. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2006				
Sex									
Male	3,941	14.4	9,793	35.7	2,789	10.2	10,928	39.8	27,451
Female	1,295	13.1	3,371	34.0	1,030	10.4	4,209	42.5	9,905
Age at diagnosis (yr)									
13–14	5	11.4	17	35.8	6	13.7	18	39.2	47
15–24	453	7.9	1,647	28.7	636	11.1	3,005	52.3	5,741
25–34	1,191	12.3	3,188	32.9	1,053	10.9	4,245	43.9	9,676
35–44	1,761	15.0	4,381	37.2	1,196	10.2	4,430	37.6	11,767
45–54	1,249	17.2	2,810	38.6	689	9.5	2,530	34.8	7,278
55–64	445	20.1	861	38.8	188	8.5	723	32.6	2,216
≥65	131	20.8	262	41.5	52	8.2	186	29.5	631
Race/ethnicity									
American Indian/Alaska Native	26	15.7	68	41.0	19	11.2	53	32.0	166
Asian	33	10.0	134	40.5	60	18.1	104	31.5	330
Black/African American	2,684	14.3	5,931	31.7	1,619	8.7	8,479	45.3	18,712
Hispanic/Latino[b]	906	13.4	2,525	37.3	857	12.7	2,477	36.6	6,765
Native Hawaiian/Other Pacific Islander	10	22.5	14	32.5	2	5.0	17	40.0	43
White	1,526	13.9	4,332	39.4	1,234	11.2	3,899	35.5	10,991
Multiple races	51	14.6	161	46.1	29	8.3	108	31.0	349
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,605	13.5	6,848	35.6	2,092	10.9	7,687	40.0	19,231
Injection drug use	433	15.5	1,067	38.3	270	9.7	1,014	36.4	2,784
Male-to-male sexual contact and injection drug use	170	13.6	456	36.3	107	8.6	521	41.5	1,255
Heterosexual contact[c]	704	17.4	1,360	33.6	311	7.7	1,676	41.4	4,051
Other[d]	29	22.4	62	47.9	8	6.3	30	23.3	130
Female adult or adolescent									
Injection drug use	228	13.6	611	36.5	171	10.2	666	39.7	1,675
Heterosexual contact[c]	1,044	12.8	2,709	33.3	855	10.5	3,532	43.4	8,140
Other[d]	23	25.1	51	57.2	4	4.8	12	12.9	90
Total[e]	**5,235**	**14.0**	**13,165**	**35.2**	**3,819**	**10.2**	**15,138**	**40.5**	**37,357**

Table 6c. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2007				
Sex									
Male	3,763	12.6	10,633	35.5	3,766	12.6	11,752	39.3	29,914
Female	1,286	12.4	3,587	34.5	1,292	12.4	4,219	40.6	10,385
Age at diagnosis (yr)									
13–14	2	6.3	15	44.2	4	13.1	12	36.4	34
15–24	522	8.0	1,810	27.9	728	11.2	3,430	52.9	6,490
25–34	1,120	10.8	3,494	33.8	1,230	11.9	4,492	43.5	10,336
35–44	1,560	13.1	4,488	37.7	1,503	12.6	4,338	36.5	11,889
45–54	1,225	15.0	3,132	38.4	1,102	13.5	2,701	33.1	8,160
55–64	480	18.1	1,011	38.2	380	14.4	775	29.3	2,646
≥65	139	18.7	270	36.3	111	15.0	223	30.0	743
Race/ethnicity									
American Indian/Alaska Native	21	10.4	96	47.1	25	12.0	62	30.5	204
Asian	48	11.3	165	38.9	62	14.6	149	35.3	424
Black/African American	2,626	13.1	6,272	31.3	2,077	10.4	9,050	45.2	20,025
Hispanic/Latino[b]	883	12.2	2,740	37.8	960	13.2	2,667	36.8	7,250
Native Hawaiian/Other Pacific Islander	7	16.9	21	54.5	3	8.6	8	20.0	39
White	1,400	11.7	4,752	39.8	1,898	15.9	3,891	32.6	11,941
Multiple races	63	15.3	173	41.7	34	8.2	144	34.8	414
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,537	11.8	7,630	35.6	2,824	13.2	8,434	39.4	21,425
Injection drug use	421	14.8	1,070	37.6	348	12.2	1,005	35.3	2,844
Male-to-male sexual contact and injection drug use	141	11.6	458	37.6	137	11.2	483	39.6	1,218
Heterosexual contact[c]	643	14.8	1,434	33.0	450	10.4	1,815	41.8	4,343
Other[d]	21	25.5	41	48.5	7	8.4	15	17.6	84
Female adult or adolescent									
Injection drug use	234	14.3	597	36.5	193	11.8	611	37.4	1,634
Heterosexual contact[c]	1,031	11.9	2,941	34.0	1,091	12.6	3,594	41.5	8,657
Other[d]	21	22.4	49	53.2	8	8.7	15	15.8	93
Total[e]	**5,049**	**12.5**	**14,220**	**35.3**	**5,058**	**12.6**	**15,971**	**39.6**	**40,298**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting.
Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, not but for incomplete reporting.
[a] Because of rounding, the values in each row may not sum to the row total.
[b] Hispanics/Latinos can be of any race.
[c] Heterosexual contact with a person know to have, or to be at high risk for, HIV infection.
[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.
[e] Because of rounding, the values in each column may not sum to the column total.

Table 6d. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2005				
Sex									
Male	4,284	14.9	10,424	36.1	2,740	9.5	11,399	39.5	28,846
Female	1,543	14.6	3,539	33.4	1,108	10.5	4,414	41.6	10,605
Age at diagnosis (yr)									
13–14	7	17.0	19	43.6	5	12.4	12	27.0	44
15–24	492	9.0	1,609	29.4	541	9.9	2,824	51.7	5,465
25–34	1,285	12.3	3,523	33.8	1,061	10.2	4,545	43.6	10,414
35–44	1,975	15.5	4,692	36.8	1,251	9.8	4,819	37.8	12,737
45–54	1,422	18.8	2,890	38.1	713	9.4	2,553	33.7	7,578
55–64	486	19.5	983	39.5	210	8.5	808	32.5	2,487
≥65	160	22.0	247	34.0	67	9.3	252	34.7	727
Race/ethnicity									
American Indian/Alaska Native	18	9.9	86	47.2	12	6.4	67	36.6	183
Asian	33	9.7	123	36.5	48	14.4	133	39.5	336
Black/African American	2,936	15.5	6,144	32.5	1,594	8.4	8,242	43.6	18,915
Hispanic/Latino[b]	1,186	14.7	2,762	34.1	810	10.0	3,336	41.2	8,094
Native Hawaiian/Other Pacific Islander	12	25.3	20	44.2	1	2.3	13	28.2	46
White	1,588	13.9	4,611	40.4	1,335	11.7	3,866	33.9	11,401
Multiple races	54	11.4	216	45.4	49	10.3	156	32.9	475
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,694	13.9	7,132	36.7	2,022	10.4	7,602	39.1	19,449
Injection drug use	613	17.5	1,218	34.8	298	8.5	1,374	39.2	3,503
Male-to-male sexual contact and injection drug use	201	13.7	559	38.1	117	8.0	591	40.3	1,468
Heterosexual contact[c]	744	17.3	1,453	33.8	301	7.0	1,802	41.9	4,300
Other[d]	33	25.7	62	49.1	3	2.3	29	23.0	127
Female adult or adolescent									
Injection drug use	315	16.0	677	34.4	197	10.0	781	39.6	1,970
Heterosexual contact[c]	1,198	14.1	2,811	33.0	904	10.6	3,609	42.4	8,521
Other[d]	30	26.6	51	45.3	8	6.7	24	21.4	113
Total[e]	**5,827**	**14.8**	**13,963**	**35.4**	**3,848**	**9.8**	**15,813**	**40.1**	**39,451**

Table 6d. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2006				
Sex									
Male	4,105	14.5	9,926	35.0	2,801	9.9	11,502	40.6	28,334
Female	1,383	13.5	3,460	33.6	1,043	10.1	4,397	42.8	10,283
Age at diagnosis (yr)									
13–14	6	12.8	18	35.6	6	12.8	20	38.8	50
15–24	467	8.0	1,663	28.5	642	11.0	3,070	52.6	5,842
25–34	1,238	12.4	3,244	32.4	1,057	10.5	4,483	44.7	10,023
35–44	1,846	15.2	4,447	36.6	1,200	9.9	4,656	38.3	12,150
45–54	1,318	17.4	2,865	37.9	696	9.2	2,685	35.5	7,564
55–64	469	20.3	876	37.9	190	8.2	777	33.6	2,313
≥65	142	21.0	273	40.4	53	7.8	209	30.8	677
Race/ethnicity									
American Indian/Alaska Native	26	15.7	68	41.0	19	11.2	53	32.0	166
Asian	33	9.9	134	40.2	60	18.0	106	31.9	332
Black/African American	2,684	14.3	5,931	31.7	1,619	8.6	8,504	45.4	18,737
Hispanic/Latino[b]	1,159	14.5	2,745	34.3	882	11.0	3,211	40.2	7,997
Native Hawaiian/Other Pacific Islander	10	21.9	14	31.7	2	4.9	18	41.5	44
White	1,526	13.9	4,333	39.4	1,234	11.2	3,899	35.5	10,993
Multiple races	51	14.6	161	46.1	29	8.3	108	31.0	349
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,659	13.6	6,905	35.4	2,096	10.7	7,838	40.2	19,497
Injection drug use	478	15.3	1,103	35.2	274	8.8	1,278	40.8	3,133
Male-to-male sexual contact and injection drug use	175	13.6	464	35.9	110	8.5	542	42.0	1,291
Heterosexual contact[c]	762	17.8	1,391	32.5	313	7.3	1,815	42.4	4,281
Other[d]	30	23.1	62	47.6	8	6.2	30	23.1	131
Female adult or adolescent									
Injection drug use	241	13.7	625	35.5	173	9.9	719	40.9	1,758
Heterosexual contact[c]	1,119	13.3	2,784	33.0	866	10.3	3,667	43.5	8,435
Other[d]	23	25.0	51	56.9	4	4.8	12	13.3	90
Total[e]	**5,488**	**14.2**	**13,386**	**34.7**	**3,844**	**10.0**	**15,900**	**41.2**	**38,618**

Table 6d. Laboratory tests performed within 3 months after diagnosis of HIV infection, by year of diagnosis and selected characteristics, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting *(cont)*

	CD4 only		CD4 & viral load		Viral load only		No lab test		Total
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.[a]
					2007				
Sex									
Male	3,944	12.8	10,784	35.1	3,782	12.3	12,213	39.8	30,724
Female	1,375	12.8	3,668	34.1	1,297	12.1	4,405	41.0	10,746
Age at diagnosis (yr)									
13–14	2	6.1	15	42.7	4	12.7	13	38.5	35
15–24	545	8.2	1,832	27.7	730	11.0	3,517	53.1	6,624
25–34	1,179	11.1	3,548	33.4	1,236	11.6	4,666	43.9	10,630
35–44	1,636	13.4	4,553	37.3	1,510	12.4	4,521	37.0	12,219
45–54	1,302	15.4	3,190	37.8	1,106	13.1	2,840	33.7	8,438
55–64	508	18.5	1,035	37.7	381	13.9	817	29.8	2,741
≥65	146	18.7	280	35.8	111	14.2	245	31.3	782
Race/ethnicity									
American Indian/Alaska Native	21	10.4	96	47.1	25	12.0	62	30.5	204
Asian	48	11.2	165	38.7	62	14.5	152	35.6	426
Black/African American	2,628	13.1	6,272	31.3	2,077	10.4	9,079	45.3	20,056
Hispanic/Latino[b]	1,151	13.7	2,971	35.4	981	11.7	3,280	39.1	8,383
Native Hawaiian/Other Pacific Islander	7	16.0	21	51.5	3	8.2	10	24.4	42
White	1,400	11.7	4,754	39.8	1,898	15.9	3,892	32.6	11,944
Multiple races	63	15.3	173	41.7	34	8.2	144	34.8	414
Transmission category									
Male adult or adolescent									
Male-to-male sexual contact	2,614	12.0	7,702	35.5	2,830	13.0	8,565	39.4	21,711
Injection drug use	473	15.0	1,109	35.3	354	11.3	1,207	38.4	3,142
Male-to-male sexual contact and injection drug use	147	11.8	465	37.2	138	11.0	501	40.0	1,251
Heterosexual contact[c]	688	15.2	1,468	32.4	453	10.0	1,926	42.5	4,535
Other[d]	21	25.4	41	48.4	7	8.4	15	17.9	84
Female adult or adolescent									
Injection drug use	237	14.0	611	36.2	194	11.5	646	38.3	1,688
Heterosexual contact[c]	1,118	12.5	3,007	33.5	1,095	12.2	3,745	41.8	8,964
Other[d]	21	22.1	51	53.7	8	8.5	15	15.7	94
Total[e]	**5,319**	**12.8**	**14,453**	**34.9**	**5,079**	**12.2**	**16,619**	**40.1**	**41,470**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting.
Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, not but for incomplete reporting.
[a] Because of rounding, the values in each row may not sum to the row total.
[b] Hispanics/Latinos can be of any race.
[c] Heterosexual contact with a person know to have, or to be at high risk for, HIV infection.
[d] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or identified.
[e] Because of rounding, the values in each column may not sum to the column total.

Table 7a. Satisfaction of criteria for HIV infection, stage 3 (AIDS), by year of diagnosis and CD4 test results, 2005–2007—37 states with confidential name-based HIV infection reporting

	CD4 count, cells/μL[a]							
	<50		50–99		100–199		Total[b]	
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%
				2005				
CD4 only[c]	4,935	66.4	3,090	81.5	12,416	94.6	20,567	78.8
CD4 and opportunistic illness[d]	2,498	33.6	702	18.5	708	5.4	3,908	15.0
Opportunistic illness only[e]	—	—	—	—	—	—	1,620	6.2
Total[f]	**7,433**	**100.0**	**3,791**	**100.0**	**13,124**	**100.0**	**26,094**	**100.0**
				2006				
CD4 only[c]	4,780	67.6	3,046	82.5	12,162	95.3	20,073	80.4
CD4 and opportunistic illness[d]	2,288	32.4	644	17.5	606	4.7	3,538	14.2
Opportunistic illness only[e]	—	—	—	—	—	—	1,371	5.5
Total[f]	**7,068**	**100.0**	**3,690**	**100.0**	**12,768**	**100.0**	**24,981**	**100.0**
				2007				
CD4 only[c]	4,981	69.6	3,035	84.0	12,650	96.0	20,740	82.3
CD4 and opportunistic illness[d]	2,171	30.4	577	16.0	528	4.0	3,275	13.0
Opportunistic illness only[e]	—	—	—	—	—	—	1,198	4.8
Total[f]	**7,152**	**100.0**	**3,612**	**100.0**	**13,178**	**100.0**	**25,214**	**100.0**

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

[b] Includes persons whose infection satisfied the immunologic criteria for stage 3 (AIDS) but whose specific CD4 test result was not available: 118 in 2005, 78 in 2006, and 63 in 2007. These cases are included in the Total column. Because of rounding, the values in each row may not sum to the row total.

[c] HIV infection, stage 3 (AIDS)-defining CD4 result (i.e., CD4 count <200 cells/μL, or CD4 percentage <14%).

[d] HIV infection, stage 3 (AIDS)-defining CD4 result (i.e, CD4 count <200 cells/μL, or CD4 percentage <14%) and opportunistic illness.

[e] Opportunistic illness without HIV infection, stage 3 (AIDS)-defining CD4 result.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 7b. Satisfaction of criteria for HIV infection, stage 3 (AIDS), by year of diagnosis and CD4 test results, 2005–2007—37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting

	CD4 count, cells/µL[a]							
	<50		50–99		100–199		Total[b]	
	Est. No.	%	Est. No.	%	Est. No.	%	Est. No.	%
2005								
CD4 only[c]	5,021	65.6	3,188	81.0	12,738	94.5	21,084	77.9
CD4 and opportunistic illness[d]	2,631	34.4	746	19.0	742	5.5	4,119	15.2
Opportunistic illness only[e]	—	—	—	—	—	—	1,878	6.9
Total[f]	**7,652**	**100.0**	**3,934**	**100.0**	**13,480**	**100.0**	**27,081**	**100.0**
2006								
CD4 only[c]	4,871	67.2	3,126	82.3	12,448	95.1	20,547	79.5
CD4 and opportunistic illness[d]	2,382	32.8	673	17.7	643	4.9	3,699	14.3
Opportunistic illness only[e]	—	—	—	—	—	—	1,586	6.1
Total[f]	**7,253**	**100.0**	**3,800**	**100.0**	**13,091**	**100.0**	**25,833**	**100.0**
2007								
CD4 only[c]	5,103	69.3	3,123	83.7	12,922	95.9	21,249	81.6
CD4 and opportunistic illness[d]	2,265	30.7	610	16.3	553	4.1	3,428	13.2
Opportunistic illness only[e]	—	—	—	—	—	—	1,356	5.2
Total[f]	**7,368**	**100.0**	**3,733**	**100.0**	**13,475**	**100.0**	**26,034**	**100.0**

See Technical Notes for the list of areas that have had laws or regulations requiring confidential name-based HIV infection reporting since at least January 2005.

Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

[a] When only CD4 percentage was available, a CD4 count was interpreted as described in Technical Notes.

[b] Includes persons whose infection satisfied the immunologic criteria for stage 3 (AIDS) but whose specific CD4 test result was not available: 129 in 2005, 95 in 2006, and 90 in 2007. These cases are included in the Total column. Because of rounding, the values in each row may not sum to the row total.

[c] HIV infection, stage 3 (AIDS)-defining CD4 result (i.e., CD4 count <200 cells/µL, or CD4 percentage <14%).

[d] HIV infection, stage 3 (AIDS)-defining CD4 result (i.e, CD4 count <200 cells/µL, or CD4 percentage <14%) and opportunistic illness.

[e] Opportunistic illness without HIV infection, stage 3 (AIDS)-defining CD4 result.

[f] Because of rounding, the values in each column may not sum to the column total.

Table 8. CD4 and viral load reporting by HIV infection surveillance reporting area, December 2007—50 states, District of Columbia, and U.S. dependent areas

	CD4 count, cells/μL		Viral load	
State or area	**Lab reporting required[a]**	**Reportable level[b]**	**Lab reporting required[a]**	**Reportable level[b]**
Alabama	Yes	<200	No	—
Alaska	Yes	All values	Yes	Any result
American Samoa	No	—	No	—
Arizona	Yes	<200 or <14%	Yes	Detectable
Arkansas	Yes	All values	Yes	Any result
California	No	—	Yes	Any result
Colorado	Yes	<500	Yes	Any result
Connecticut	Yes	<200 or <14%	Yes	Any result
Delaware	Yes	All values	Yes	Any result
Florida	Yes	All values	Yes	Any result
Georgia	Yes	All values	Yes	Any result
Guam	No	—	No	—
Hawaii	Yes	<200	Yes	Detectable
Idaho	Yes	<200 or <14%	Yes	Detectable
Illinois	Yes	<200 or <14%	Yes	Not specified
Indiana	Yes	All values	Yes	Any result
Iowa	Yes	All values	Yes	Any result
Kansas	Yes	<500 or <29%	Yes	Any result
Kentucky	Yes	All values	Yes	Detectable
Louisiana	Yes	All values	Yes	Any result
Maine	Yes	<200	Yes	Any result
Maryland	Yes	All values	Yes	Any result
Massachusetts	Yes	<200 or <14%	No	—
Michigan	Yes	All values	Yes	Any result
Minnesota	Yes	<200	Yes	Detectable
Mississippi	Yes	All values	Yes	Any result
Missouri	Yes	All values	Yes	Any result
Montana	No	—	Yes	Detectable
Nebraska	Yes	<800	Yes	Any result
Nevada	Yes	<500	Yes	Detectable
New Hampshire	Yes	All values	Yes	Any result
New Jersey	Yes	<200 or <14%	Yes	Any result
New Mexico	Yes	<200 or <14%	Yes	Any result
New York	Yes	All values	Yes	Any result
New York City	Yes	All values	Yes	Any result
North Carolina	Yes	<200	Yes	Detectable
North Dakota	Yes	All values	Yes	Any result

Table 8. CD4 and viral load reporting by HIV infection surveillance reporting area, December 2007—50 states, District of Columbia, and U.S. dependent areas *(cont)*

State or area	CD4 count, cells/µL		Viral load	
	Lab reporting required[a]	Reportable level[b]	Lab reporting required[a]	Reportable level[b]
Northern Mariana Islands	No	—	No	—
Ohio	Yes	<200	Yes	Detectable
Oklahoma	Yes	<500	Yes	Any result
Oregon	Yes	All values	Yes	Any result
Pennsylvania	Yes	<200 or <14%	Yes	Detectable
Puerto Rico	Yes	All values	Yes	Any result
Rhode Island	Yes	<200 or <14%	Yes	Any result
South Carolina	Yes	All values	Yes	Any result
South Dakota	Yes	<200	No	—
Tennessee	Yes	<200	Yes	Detectable
Texas	Yes	<200 or <14%	Yes	Detectable
U.S. Virgin Islands	Yes	<200	No	—
Utah	Yes	All values	Yes	Any result
Vermont	Yes	<200 or <14%	Yes	Any result
Virginia	Yes	All values	Yes	Any result
Washington	Yes	All values	Yes	Any result
Washington, District of Columbia	Yes	All values	Yes	Any result
West Virginia	Yes	All values	Yes	Any result
Wisconsin	Yes	<200 or <14%	Yes	Any result
Wyoming	Yes	All values	Yes	Any result

Source: State and area HIV surveillance staff.

[a] Most state laws, regulations, or statutes require laboratories to report, but in some instances the language is not specific.

[b] Level at which CD4 or viral load reporting is required by state laws, regulations, or statutes.