

HIV

SURVEILLANCE REPORT

SUPPLEMENTAL REPORT

Volume 25, Number 2

Monitoring Selected National HIV Prevention and Care Objectives by Using HIV Surveillance Data United States and 6 Dependent Areas, 2018

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



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Data are presented for diagnoses of HIV infection reported to CDC through December 2019.

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The Centers for Disease Control and Prevention (CDC) collects data to monitor progress toward achieving national goals [1, 2] and the objectives set forth in other federal directives, including the updated strategic plan [3] of the Division of HIV/AIDS Prevention (DHAP). This surveillance supplemental report complements the 2018 *HIV Surveillance Report (Updated)* [4] and presents the results of focused analyses of National HIV Surveillance System (NHSS) [5] data to measure progress toward achieving national goals [1]. Data in this report are also used to assess Department of Health and Human Services (HHS) core indicators [6, 7] and to monitor progress toward attainment of HIV-related national objectives in Healthy People 2020 and the Ending the HIV Epidemic: A Plan for America (EHE) initiative [8, 9]. See Tables 11 and 12 for summaries of indicators for the National HIV/AIDS Strategy 2020 and EHE.

REPORT CHANGES

The 2018 report includes data reported to CDC's NHSS through December 31, 2019. The use of data reported to CDC through December 2019 allows for a 12-month reporting delay and assessment of trends through the most recent diagnosis, death, and prevalence year (2018). Death data for the year 2018 are preliminary.

Tables 2a–d, 3a–d, 4a–d, and 5a–d include data from 42 jurisdictions that reported complete CD4 and viral load data. The jurisdictions included in this report differ from those in previous reports. A jurisdiction's data are included only if that jurisdiction met CDC's criteria (see Technical Notes) for the collection and reporting of CD4 and viral load test results for all the data years examined. In comparison with the 2017 report, the 2018 report includes data from one additional state (Nevada) that met the criteria and does not include data from one state that no longer met the criteria (Connecticut).

New to this report are the following:

- Tables now include a gender category that displays data for transgender persons and persons of additional gender identity (Tables 1a/b, 2a/c, 3a/c,

4a/c, 5a/c, 7a/b, 7d/e, 8a/b, 8d/e) by selected characteristics for multiple years (2014–2018).

- Tables 5c/d display viral suppression within 6 months of diagnosis data by selected characteristics and area of residence.
- Tables 6a/b display estimates of preexposure prophylaxis (PrEP) coverage by selected characteristics and area of residence. Estimates of PrEP coverage were produced using data from the IQVIA Real-World Longitudinal Prescriptions database, U.S. Census, NHSS, and the National Health and Nutrition Examination Survey (NHANES).
- Appendix Tables (A1a–A6), which display data for the 50 EHE Phase I jurisdictions. Stage of disease at time of diagnosis, linkage to HIV medical care, receipt of care, viral suppression, and PrEP coverage are included.
- Supplementary Tables S1a–S5b, which display 2017 data that have not been previously published in reports or have been updated. Stage of disease at time of diagnosis, linkage to HIV medical care, receipt of HIV medical care, viral suppression, and PrEP coverage are included.

DEFINITIONS AND DATA SPECIFICATIONS

The term *diagnosis of HIV infection* refers to a diagnosis of HIV infection regardless of the person's stage of disease (stage 0, 1, 2, 3 [AIDS], or unknown) at the time of diagnosis. Please use caution when interpreting data on diagnosed HIV infection. HIV surveillance data on persons with diagnosed HIV infection may not represent all persons with HIV because not all infected persons have been (1) tested or (2) tested at a time when the infection could be detected and diagnosed. Also, some states offer anonymous HIV testing; 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.

In 2014, the HIV surveillance case definition was revised to adapt to changes in diagnostic criteria used by laboratories and clinicians [10]. The laboratory cri-

teria for defining a confirmed case of HIV infection were changed to accommodate multitest algorithms that did not include previously required tests (e.g., Western blot). New to the case definition is the inclusion of criteria for differentiating HIV-1 and HIV-2 infections and for recognizing early HIV infection (stage 0), during which viral loads may be high enough and CD4 T-lymphocyte counts low enough to be misclassified as stage 3 (AIDS). In addition, the revised definition consolidates the staging systems for adults/adolescents and children, simplifies surveillance criteria for opportunistic illnesses indicative of stage 3, and incorporates revisions of clinical criteria (i.e., medical record documentation) for reporting diagnoses without laboratory evidence. Because retroactive implementation of some features (e.g., the new staging system) of the 2014 case definition would be impractical, the following criteria were used to classify cases in this report:

- Cases diagnosed before 2014 were classified according to the 2008 HIV case definition [11].
- Cases diagnosed in 2014 and later were classified according to the 2014 HIV case definition [10].

Monitoring stage of disease at time of diagnosis, linkage to HIV medical care, retention in HIV medical care, and viral suppression (on the basis of NHSS data) is dependent upon complete reporting of HIV-related laboratory results (including CD4+ T-lymphocyte [CD4] and viral load results) to HIV surveillance programs and CDC. Although most jurisdictions have regulations that require laboratories and providers to report at least a subset of CD4 and viral load test results to health departments, not all jurisdictions have mandatory reporting of all levels of CD4 and viral load (i.e., detectable and undetectable) results. As of December 2019, 42 jurisdictions (41 states and the District of Columbia) required reporting of all levels of CD4 and viral load test results and had reported to CDC $\geq 95\%$ of the test results they had received by December 2019 (for specimens collected from at least January 2017 through September 2019). (For a list of the 42 jurisdictions, see Technical Notes.)

In this report, data from the 42 jurisdictions that reported complete CD4 and viral load laboratory results to CDC were used for the analyses that require laboratory data (Tables 2a–d, 3a–d, 4a–d, 5a–d). Data from these 42 jurisdictions represent 89% of all persons aged ≥ 13 years living with diagnosed HIV infec-

tion at year-end 2018 in the United States and may not be representative of data on all persons living with diagnosed HIV infection in the United States. Data from the 50 states, the District of Columbia, and 6 U.S. dependent areas (where indicated) were used for analyses of stage 3 (AIDS) at the time of diagnosis of HIV infection (Tables 1a–d), deaths and survival of persons with diagnosed HIV infection (Tables 7a–f and 8a–f), and diagnosed perinatally acquired HIV infection (Tables 9a/b).

For tables that include data by transmission category, the data were statistically adjusted to account for missing transmission category and is presented based on sex at birth (see Technical Notes).

HIGHLIGHTS OF ANALYSES

Please read all table titles and footnotes carefully to ensure a complete understanding of the displayed data.

Stage 3 (AIDS) classification at time of diagnosis of HIV infection

Among persons with an HIV diagnosis during 2018, 20.8% of infections were classified as stage 3 (AIDS) at the time of diagnosis (Table 1a). The overall percentages decreased from 2014 through 2018.

The following percentages are for persons with stage 3 (AIDS) classification at time of HIV diagnosis during 2018.

- **Gender:** The highest percentages were for females (21.7%), followed by males (20.7%) and transgender male-to-female (MF; 13.4%). Please use caution when interpreting data for transgender female-to-male (FM) and persons of additional gender identity (AGI): the numbers are small.
- **Age group:** The percentage increased as age increased (e.g., 9.1% of persons aged 13–24 years and 35.2% of persons aged ≥ 55 years).
- **Race/ethnicity:** The highest percentages were for Asians (26.6%), Hispanics/Latinos (21.6%), and whites (21.3%), followed by blacks/African Americans (19.8%), Native Hawaiians/other Pacific Islanders (19.7%), persons of multiple races (19.4%), and American Indians/Alaska Natives (16.1%). Please use caution when interpreting data on American Indians/Alaska Natives and Native Hawaiians/other Pacific Islanders: the numbers are small.

- **Transmission category:** The highest percentage was for males with infection attributed to heterosexual contact (32.9%), followed by males with infection attributed to injection drug use (23.0%), females with infection attributed to heterosexual contact (21.8%), females with infection attributed to injection drug use (20.0%), males with infection attributed to male-to-male sexual contact (19.4%), and males with infection attributed to male-to-male sexual contact *and* injection drug use (15.1%).
- **Race/ethnicity:** For all races/ethnicities, >60% of infections were diagnosed at an earlier stage (stage 0, 1 or 2). The highest percentages for persons whose infection was diagnosed at an earlier stage (stage 0, 1, or 2) were for Hispanics/Latinos (7.6% [stage 0]; 26.0% [stage 1]; 32.1% [stage 2]) and persons of multiple races (9.0% [stage 0]; 25.1% [stage 1]; 31.5% [stage 2]), followed by Native Hawaiians/other Pacific Islanders (7.0% [stage 0]; 17.5% [stage 1]; 40.4% [stage 2]), whites (7.4% [stage 0]; 28.8% [stage 1]; 27.9% [stage 2]), Asians (6.0% [stage 0]; 21.0% [stage 1]; 34.7% [stage 2]), blacks/African Americans (6.2% [stage 0]; 25.0% [stage 1]; 30.3% [stage 2]), and American Indians/Alaska Natives (10.0% [stage 0]; 24.3% [stage 1]; 27.1% [stage 2]). The stage-unknown percentages were slightly higher among American Indians/Alaska Natives, blacks/African Americans, and persons of multiple races (20.7%, 18.7% and 15.2%, respectively). Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.

Stage of disease at time of diagnosis of HIV infection

Stage of disease at time of diagnosis (i.e., HIV infection, stage 0, 1, 2, 3 [AIDS], or unknown) was based on data for persons with HIV infection diagnosed during 2018 in the 42 jurisdictions that reported complete CD4 and viral load test results to CDC. Among 33,500 persons, the stage of disease at time of diagnosis was classified as follows (Table 2a): stage 0 (7.0%), stage 1 (26.1%), stage 2 (30.3%), stage 3 (AIDS) (20.6%), stage unknown (16.0%).

- **Gender:** The highest percentage for persons whose infection was diagnosed at an earlier stage (stage 0, 1, or 2) was for transgender FM (26.2% [stage 0]; 38.1% [stage 1]; 23.8% [stage 2]), followed by transgender MF (9.1% [stage 0]; 33.1% [stage 1]; 31.3% [stage 2]), males (7.4% [stage 0]; 25.0% [stage 1]; 31.1% [stage 2]), and females (4.9% [stage 0]; 30.3% [stage 1]; 27.2% [stage 2]). The percentage for persons with stage 3 classification was the highest for females (21.6%) and the lowest for transgender FM (0%). The stage-unknown percentages were similar for males (16.1%) and females (16.0%) and the lowest for transgender FM (11.9%). Please use caution when interpreting data for transgender FM and AGI: the numbers are small.
- **Age group:** The highest percentage for persons whose infection was diagnosed at an earlier stage (stage 0, 1, or 2) was for persons aged 13–24 (10.1% [stage 0]; 27.8% [stage 1]; 34.9% [stage 2]), followed by those for persons aged 25–34 (7.8% [stage 0]; 28.1% [stage 1]; 31.9% [stage 2]). In general, the percentages of early diagnosis decreased as age increased. Among persons with a stage 3 classification, the higher percentages were for persons in older age groups.
- **Transmission category:** The highest percentages for persons whose infection was diagnosed at an earlier stage (stage 0, 1, or 2) were for males with infection attributed to male-to-male sexual contact *and* injection drug use (10.5% [stage 0]; 31.7% [stage 1]; 27.6% [stage 2]) and male-to-male sexual contact (7.9% [stage 0]; 25.5% [stage 1]; 31.8% [stage 2]). The lowest percentages were for males with infection attributed to heterosexual contact (3.2% [stage 0]; 18.5% [stage 1]; 28.1% [stage 2]) and for males with infection attributed to injection drug use (4.9% [stage 0]; 24.8% [stage 1]; 26.7% [stage 2]).

Linkage to HIV medical care after diagnosis of HIV infection

Linkage to HIV medical care was based on data for persons with infection diagnosed during 2018 in the 42 jurisdictions that reported complete CD4 and viral load test results to CDC. Linkage to HIV medical care was measured by documentation of at least 1 CD4 or viral load test performed ≤ 1 month or ≤ 3 months after diagnosis. Of the 33,500 persons whose infection was diagnosed during 2018, 80.2% were linked to HIV medical care ≤ 1 month after diagnosis, and 87.8%

were linked to HIV medical care ≤ 3 months after diagnosis (Table 3a).

The following percentages are for persons who were linked to HIV medical care ≤ 1 month after diagnosis (Table 3a).

- **Gender:** The highest percentage was for AGI (90.0%), followed by transgender MF (80.5%), males (80.2%), females (79.8%), and transgender FM (76.2%). Please use caution when interpreting data for transgender FM and AGI: the numbers are small.
- **Age group:** In general, linkage to HIV medical care increased as age group at time of diagnosis increased. The highest percentages were for persons aged ≥ 55 years (82.8%) and persons aged 35–44 years (82.3%). The lowest percentage was for persons aged 13–24 years (77.2%).
- **Race/ethnicity:** The highest percentage was for Native Hawaiians/other Pacific Islanders (87.7%). The percentages for other races/ethnicities were as follows: Asians (84.2%), whites (82.6%), Hispanics/Latinos (82.4%), persons of multiple races (82.0%), American Indians/Alaska Natives (77.9%), and blacks/African Americans (77.1%). Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.
- **Transmission category:** The percentages were relatively similar for all transmission categories. The highest percentages were for males with infection attributed to male-to-male sexual contact (80.8%) and females with infection attributed to heterosexual contact (80.5%), followed by males with infection attributed to male-to-male sexual contact *and* injection drug use (79.6%). The lowest percentage was for females with infection attributed to injection drug use (75.6%).

The following percentages are for persons who were linked to HIV medical care ≤ 3 months after diagnosis (Table 3a).

- **Gender:** The highest percentage was for AGI (100%), followed by females (88.3%), transgender MF (88.2%), males (87.7%), and transgender FM (85.7%). Please use caution when interpreting data for transgender FM and AGI: the numbers are small.

- **Age group:** Linkage to HIV medical care increased as age group at time of diagnosis increased. The highest percentage was for persons aged ≥ 55 years (89.5%), followed by that for persons aged 35–44 years (89.1%). The lowest percentage was for persons aged 13–24 years (86.4%).
- **Race/ethnicity:** The highest percentages were for Native Hawaiians/other Pacific Islanders (93.0%) and Asians (90.1%). The percentages for other races/ethnicities were 89.6%, whites; 89.3%, Hispanics/Latinos; 88.3%, persons of multiple races; 85.8%, blacks/African Americans; and 85.7%, American Indians/Alaska Natives. Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.
- **Transmission category:** The percentages were relatively similar for all transmission categories. The highest percentage was for females with infection attributed to heterosexual contact (88.7%), followed by males with infection attributed to male-to-male sexual contact (88.1%) and males with infection attributed to male-to-male sexual contact *and* injection drug use (88.1%). The lowest percentage was for males with infection attributed to injection drug use (84.1%).

Receipt of HIV medical care

Receipt of HIV medical care was based on data for persons with HIV infection diagnosed by year-end 2017 and alive at year-end 2018 in the 42 jurisdictions that reported complete CD4 and viral load test results to CDC. Receipt of any HIV medical care was measured by documentation of ≥ 1 CD4 or viral load tests performed during 2018; retention in HIV medical care (receipt of continuous care) was measured by documentation of ≥ 2 CD4 or viral load tests performed at least 3 months apart during 2018. During 2018, 75.7% of 874,230 persons received HIV medical care, and 57.9% met the criteria for continuous HIV medical care (Table 4a).

The following percentages are for persons who received any HIV medical care.

- **Gender:** The highest percentage was for transgender FM (87.1%), followed by AGI (85.7%), transgender MF (83.7%), males (75.7%), and females (75.5%).

- **Age group:** The highest percentage was for persons aged 13–24 years (78.9%). The lowest percentage was for persons aged ≥ 55 years (74.7%).
- **Race/ethnicity:** The highest percentage was for persons of multiple races (86.5%), followed by whites (79.0%), Asians (75.0%), American Indians/Alaska Natives (74.9%), Native Hawaiians/other Pacific Islanders (74.6%), blacks/African Americans (73.7%), and Hispanics/Latinos (73.0%). Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.
- **Transmission category:** The highest percentage was for males with infection attributed to male-to-male sexual contact *and* injection drug use (79.6%), followed by males with infection attributed to male-to-male sexual contact (77.3%). The lowest percentage was for males with infection attributed to injection drug use (64.1%).

The following percentages are for persons who were retained in continuous HIV medical care.

- **Gender:** The highest percentage was for AGI (72.8%), followed by transgender MF (66.2%), transgender FM (60.7%), females (58.0%), and males (57.7%).
- **Age group:** The highest percentage was for persons aged ≥ 55 years (59.9%). In general, the percentage increased as age increased; however, the lowest percentage was for persons aged 25–34 years (55.2%).
- **Race/ethnicity:** The highest percentage was for persons of multiple races (66.3%), followed by whites (58.9%), Hispanics/Latinos (58.7%), Asians (58.7%), blacks/African Americans (55.8%), American Indians/Alaska Natives (55.7%), and Native Hawaiians/other Pacific Islanders (52.9%). Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.
- **Transmission category:** The highest percentages were for males with infection attributed to male-to-male sexual contact *and* injection drug use (61.7%), males with infection attributed to male-to-male sexual contact (58.6%), and

females with infection attributed to heterosexual contact (58.2%). The lowest percentage was for males with infection attributed to injection drug use (50.6%).

Viral suppression

Viral suppression was measured for persons with HIV infection diagnosed by year-end 2017 and alive at year-end 2018 in the 42 jurisdictions that reported complete CD4 and viral load test results to CDC. Viral suppression was measured by a viral load result of < 200 copies/mL at the most recent viral load test during 2018.

During 2018, 75.7% of 874,230 persons had at least 1 CD4 *or* viral load test (i.e., received any care in 2018), and 72.9% had at least 1 viral load test. At the most recent viral load test during 2018, viral load was suppressed in 85.4% of persons who received care (at least 1 CD4 *or* viral load test) in 2018 and in 88.6% of persons with a viral load test during 2018. The persons with suppressed viral load represented 64.7% of the total number of persons with an HIV diagnosis by year-end 2017 and alive at year-end 2018 in the 42 jurisdictions (Table 5a).

The following percentages are for persons whose most recent viral load test result in 2018 indicated viral suppression (denominator: persons who were alive at year-end 2018).

- **Gender:** The highest percentage was for transgender FM (71.5%), followed by AGI (68.7%), transgender MF (65.4%), males (65.1%), and females (63.0%).
- **Age group:** The percentage increased as age increased (60.3% [persons aged 13–24 years]; 67.0% [persons aged ≥ 55 years]).
- **Race/ethnicity:** The highest percentage was for persons of multiple races (72.5%), followed by whites (70.7%), Asians (69.6%), Native Hawaiians/other Pacific Islanders (65.4%), American Indians/Alaska Natives (64.0%), Hispanics/Latinos (63.7%), and blacks/African Americans (59.9%). Please use caution when interpreting data for American Indians/Alaska Natives and for Native Hawaiians/other Pacific Islanders: the numbers are small.
- **Transmission category:** The highest percentage was for males with infection attributed to male-to-male sexual contact (67.3%). The lowest percent-

age was for males with infection attributed to injection drug use (53.2%).

Viral suppression within 6 months of HIV diagnosis was measured for persons with HIV infection diagnosed in 2018 in the 42 jurisdictions that reported complete CD4 and viral load test results to CDC. Viral suppression was measured by a viral load result of <200 copies/mL at any viral load test within 6 months of HIV diagnosis during 2018.

At any viral load test within 6 months of HIV diagnosis during 2018, viral load was suppressed in 66.8% of persons with HIV infection diagnosed in 2018 in the 42 jurisdictions (Table 5c).

The following percentages are for persons with HIV diagnosed in 2018 who had a viral load test result of <200 copies/mL within 6 months of HIV diagnosis.

- **Gender:** The highest percentage was for AGI (100%), followed by transgender FM (69.0%), males (66.9%), females (66.4%), and transgender MF (65.9%). Please use caution when interpreting data for transgender FM and AGI: the numbers are small.
- **Age group:** In general, the percentage increased as age increased; however, the lowest percentage was for persons aged 13–24 years (64.9%) and the highest percentage was for persons aged 35–44 years (68.8%).
- **Race/ethnicity:** The highest percentage was for Asians (76.7%), followed by Hispanics/Latinos (71.0%), persons of multiple races (69.3%), whites (68.3%), Native Hawaiians/other Pacific Islanders (66.7%), blacks/African Americans (62.9%), and American Indians/Alaska Natives (52.9%).
- **Transmission category:** The highest percentage was for females with infection attributed to heterosexual contact (68.5%), followed by males with infection attributed to male-to-male sexual contact (68.3%) and males with infection attributed to male-to-male sexual contact *and* injection drug use (64.6%).

Preexposure prophylaxis (PrEP) coverage and persons prescribed PrEP

By using pharmacy and HIV surveillance data, we estimated 1.2 million persons in the United States had indications for PrEP and 18.1% were prescribed PrEP in 2018 (Table 6a).

- **Sex at birth:** PrEP coverage was three times as high among males (20.8%) as among females (6.6%).
- **Age group:** The highest percentages of PrEP coverage were for persons aged 35–44 years (21.9%) and persons aged 25–34 years (21.5%). The lowest percentage was for persons aged 16–24 years (11.4%).
- **Race/ethnicity:** In 2018, after adjusting for missing race/ethnicity, the highest percentage was for whites (42.1%), followed by Hispanics/Latinos (10.9%) and blacks/African Americans (5.9%).
- **Area of residence:** PrEP coverage varied and ranged from 5.0% in Wyoming to 41.1% in New York (Table 6b).

Deaths

Annual rates of death were calculated per 100,000 population and per 1,000 persons living with diagnosed HIV infection or living with infection ever classified as stage 3 (AIDS). Age-adjusted rates per 100,000 population and per 1,000 persons living with diagnosed HIV infection or living with infection ever classified as stage 3 (AIDS) were also calculated and are presented by area of residence.

Deaths of persons with diagnosed HIV infection

From 2014 through 2018 in the United States and 6 dependent areas, the annual rate of deaths per 100,000 population and the annual rate per 1,000 persons living with diagnosed HIV infection decreased (Table 7b). Trends in rates varied by area of residence at death (Table 7c). In 2018, the age-adjusted rates were 5.3 per 100,000 population and 12.4 per 1,000 persons living with diagnosed HIV infection.

Deaths of persons with stage 3 (AIDS) classification

From 2014 through 2018 in the United States and 6 dependent areas, the annual rate of deaths per 100,000 population and the annual rate per 1,000 persons living with stage 3 (AIDS) decreased (Table 7e). Trends in rates varied by area of residence at death (Table 7f). In 2018, the age-adjusted rates were 4.1 per 100,000 population and 18.7 per 1,000 persons living with stage 3 (AIDS).

Survival for >3 years after diagnosis of HIV infection

In the United States and 6 dependent areas, survival after a diagnosis of HIV infection remained stable for diagnoses that were made during 2010–2015 (Table 8b). The following percentages are for persons who survived >3 years after receiving a diagnosis in 2015.

- **Gender:** The highest percentage was for transgender MF (97%), followed by males (95%) and females (94%). Percentages for transgender FM and AGI are not displayed because the number of cases were too small for the calculation of reliable survival estimates.
- **Age group:** The highest percentage was for persons aged 13–24 years (99%). The lowest percentage was for persons aged ≥ 55 years (82%).
- **Race/ethnicity:** The highest percentage was for Asians (97%), followed by Hispanics/Latinos (96%), blacks/African Americans (95%), American Indians/Alaska Natives (95%), persons of multiple races (94%), and whites (94%). Percentages for Native Hawaiians/other Pacific Islanders are not displayed because the number of cases was too small for the calculation of reliable survival estimates.
- **Transmission category:** The highest percentage was for males with infection attributed to male-to-male sexual contact (96%), followed by males with infection attributed to male-to-male sexual contact *and* injection drug use (95%) and females with infection attributed to heterosexual contact (95%). The lowest percentage was for males with infection attributed to injection drug use (88%).
- **Area of residence:** At least 90% of persons survived >3 years after diagnosis in all areas (Table 8c).

Survival after stage 3 (AIDS) classification remained stable over time (Table 8d). The following percentages are for persons who survived >3 years after receiving a stage 3 (AIDS) classification in 2015.

- **Gender:** The highest percentage was for transgender MF (90%). The lowest percentage was for females (85%). Percentages for transgender FM and AGI are not displayed because the number of cases were too small for the calculation of reliable survival estimates.

- **Age group:** The highest percentage was for persons aged 13–24 years (95%). The lowest percentage was for persons aged ≥ 55 years (71%).
- **Race/ethnicity:** The highest percentage was for Asians (91%), followed by Hispanics/Latinos (87%), blacks/African Americans (86%), persons of multiple races (85%), and whites (82%). Data for American Indians/Alaska Natives and Native Hawaiians/other Pacific Islanders are not displayed because the numbers of cases were too small for the calculation of reliable survival estimates.
- **Transmission category:** The highest percentage was for males with infection attributed to male-to-male sexual contact (87%), followed by females with infection attributed to heterosexual contact (86%). The lowest percentage was for males with infection attributed to injection drug use (74%).
- **Area of residence:** At least 71% of persons survived >3 years after stage 3 (AIDS) classification in all but 1 area (Table 8f).

Perinatally acquired HIV infection

The overall annual rate of perinatally acquired HIV infections in the United States (regardless of place of birth) decreased from 1.5 per 100,000 live births in 2014 to 0.9 in 2018 (Table 9a). However, annual rates differed by race/ethnicity. Although the annual rate among blacks/African Americans decreased from 6.5 in 2014 to 3.4 in 2018, the 2018 rate among blacks/African Americans (3.4) was substantially higher than the 2018 rates among Hispanics/Latinos (0.5) and whites (0.4).

Among infants born in the United States, the overall annual rate of perinatally acquired HIV infections decreased from 1.2 per 100,000 live births in 2014 to 0.8 in 2018 (Table 9b). However, annual rates differed by race/ethnicity. Although the annual rate among blacks/African Americans decreased from 5.4 in 2014 to 3.3 in 2018, the 2018 rate among blacks/African Americans (3.3) was substantially higher than the 2018 rates among Hispanics/Latinos (0.5) and whites (0.4).

SUGGESTED READINGS

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SURVEILLANCE OF HIV INFECTION

This report includes data reported to the Centers for Disease Control and Prevention (CDC) through December 31, 2019, from all 50 states, the District of Columbia, and 6 U.S. dependent areas (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the U.S. Virgin Islands). After the removal of personally identifiable information, data were submitted to CDC.

Please use caution when interpreting data on diagnosed HIV infection. HIV surveillance data on persons with diagnosed HIV infection may not be representative of all persons with HIV because not all infected persons have been (1) tested or (2) tested at a time when the infection could be detected and diagnosed. Also, some states offer anonymous HIV testing; 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.

Please also use caution when interpreting laboratory data for persons with diagnosed HIV infection. Laboratory data presented in this report are from 42 jurisdictions (41 states and the District of Columbia) that reported complete CD4+ T-lymphocyte (CD4) and viral load test results to CDC as of December 2019. Data from these 42 jurisdictions represent 89% of all persons aged ≥ 13 years living with diagnosed HIV infection at year-end 2018 in the United States and are therefore not representative of data on all persons living with diagnosed HIV infection in the United States.

Areas with Complete Laboratory Reporting

As of December 2019, 42 jurisdictions (41 states and the District of Columbia) had met the following criteria for the collection and reporting of CD4 and viral load test results:

- The jurisdiction's laws/regulations required the reporting of all CD4 and viral load results to the state or local health department (Table 13).
- Laboratories that perform HIV-related testing for the jurisdiction had reported a minimum of 95% of HIV-related test results to the state or local health department.

- By December 31, 2019, the jurisdiction had reported (to CDC) at least 95% of all CD4 and viral load test results received from January 2017 through September 2019.

The 41 states are Alabama, Alaska, California, Colorado, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Data from these states and the District of Columbia were used to populate Tables 2a–d, 3a–d, 4a–d, and 5a–d.

TABULATION AND PRESENTATION OF DATA

Stages of HIV Infection

Both the 2008 and 2014 HIV case definitions were used to classify HIV infection among adults and adolescents and among children [10, 11].

The 2008 case definition was used to classify cases diagnosed from the beginning of the epidemic through 2013. For adults and adolescents, this definition incorporates an HIV infection staging system that includes AIDS (HIV infection, stage 3). The 2008 stages of HIV infection are defined as follows:

- **HIV infection, stage 1:** No AIDS-defining condition and either a CD4 count of ≥ 500 cells/ μL or a CD4 percentage of total lymphocytes of ≥ 29 .
- **HIV infection, stage 2:** No AIDS-defining condition and either a CD4 count of 200–499 cells/ μL or a CD4 percentage of total lymphocytes of 14–28.
- **HIV infection, stage 3 (AIDS):** Documentation of an AIDS-defining condition or either a CD4 count of < 200 cells/ μL or a CD4 percentage of total lymphocytes of < 14 . Documentation of an AIDS-defining condition supersedes a CD4 count or percentage that would not, by itself, be the basis for a stage 3 (AIDS) classification.
- **HIV infection, stage unknown:** No reported information on AIDS-defining conditions and no information available on CD4 count or percentage.

The 2014 case definition was used to classify cases diagnosed in 2014 and later. It is similar to the 2008 case definition except for the following: (1) inclusion of criteria for stage 0, (2) the inclusion of CD4 testing criteria for stage 3 in children, and (3) changes in the cutoffs for CD4 percentage of total lymphocytes used for classification of stages 1 and 2 in persons aged ≥ 6 years. The stages of HIV infection in the 2014 case definition are based on age-specific CD4 counts or percentages of total lymphocytes and are defined as follows:

- **HIV infection, stage 0:** First positive HIV test result within 6 months after a negative HIV test result. The stage remains stage 0 until 6 months after the first positive test result. After 6 months, the stage may be classified as 1, 2, 3 if based on a CD4 test result or the diagnosis of an opportunistic illness (OI), or as unknown if no information is available for a CD4 test result or diagnosis of an OI. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.
- **HIV infection, stages 1, 2, and 3:** Documentation of an AIDS-defining OI (excluding stage 0 as described above) is stage 3. Otherwise, the stage is determined by the lowest CD4 lymphocyte test result:
 - Stage 1—CD4 lymphocyte count of ≥ 500 or a CD4 percentage of total lymphocytes of ≥ 26
 - Stage 2—CD4 lymphocyte count of 200–499 or a CD4 percentage of total lymphocytes of 14–25
 - Stage 3—CD4 lymphocyte count of < 200 or a CD4 percentage of total lymphocytes of < 14 or documentation of an AIDS-defining condition.
- **HIV infection, stage unknown:** No reported information on AIDS-defining conditions and no information available on CD4 count or percentage.

Data on persons with HIV infection, stage 3 (AIDS), include persons whose infection has ever been classified as stage 3 (AIDS). These data do not necessarily represent the current stage of disease.

Information on stage 3 (AIDS) is available for all 50 states, the District of Columbia, and 6 U.S. dependent areas, even when not all CD4 values are reportable; therefore, stage 3 (AIDS) at time of HIV diagnosis was calculated for persons in all areas

(Tables 1a–d). Because a complete assessment of stage of disease at time of HIV diagnosis relies on complete laboratory data (all CD4 values) so that earlier stages of disease (stage 0, 1, or 2) can be assessed, stage of disease at time of diagnosis was calculated for the 42 jurisdictions that reported complete laboratory data (Tables 2a/b).

Stage 3 (AIDS) at time of HIV diagnosis (Tables 1a–d) and stage of disease at time of diagnosis (Tables 2a–d) were determined by using the first CD4 test result or documentation of an AIDS-defining condition ≤ 3 months after the HIV diagnosis date, unless documentation indicated disease stage 0. If ≥ 2 events occurred during the same month and could thus qualify as “first,” the following conditions were applied:

- If an AIDS-defining condition was documented, the AIDS-defining condition was used; if a CD4 count or a CD4 percentage had been reported and an AIDS-defining condition was documented, the AIDS-defining condition was used.
- If an AIDS-defining condition was not documented, but a CD4 count and a CD4 percentage had been reported, the CD4 count was used.
- If an AIDS-defining condition was not documented, but > 1 CD4 count had been reported, the lowest CD4 count (indicative of the most severe disease state) was used.
- If an AIDS-defining condition was not documented and a CD4 count had not been reported, but a CD4 percentage had been reported, the CD4 percentage was used. If > 1 CD4 percentage was reported, the lowest CD4 percentage (indicative of the most severe disease state) was used.

For stage of disease at time of diagnosis, infections were classified as “stage unknown” if the month of HIV diagnosis was missing, or if, ≤ 3 months after HIV diagnosis, neither a CD4 count nor a CD4 percentage had been determined and no AIDS-defining condition was documented.

Linkage to, and Receipt of, HIV Medical Care

National guidelines for the clinical care and treatment of adults and adolescents living with HIV [12] recommend initiation of treatment immediately at time of HIV diagnosis regardless of viral load or CD4 count. Initiation of treatment immediately (or as soon as possible after HIV diagnosis) is to increase treatment

uptake and linkage to care, decrease the time to viral suppression for individual patients, and improve the rate of viral suppression among persons with HIV. CD4 and viral load testing is still recommended for use in clinical practice to direct the course of treatment and assess effectiveness of treatment.

For special patient populations with HIV such as transgender and nonbinary persons, knowledge of their unique care and service needs are critical to reduce barriers to engagement in care, improve health, and reduce the risk of HIV transmission to sexual partners. For transgender males and nonbinary persons of childbearing potential, a pregnancy test should be performed prior to ART initiation and selection of treatment should be based on their clinical history and pregnancy potential needs. Otherwise, ART-naïve patients who are pregnant should be started on treatment based on perinatal guidelines and counseled during pregnancy for their health and to prevent HIV transmission to the fetus.

For all transgender and nonbinary persons, clinical outcomes, potential adverse effects, treatment goals, and the patient's current hormone levels should be considered when determining the appropriate doses of hormone and androgen blockers. Clinical treatment effects and hormone levels should be routinely monitored with appropriate titrations of estradiol, testosterone, or androgen blockers, as needed. Interpretation of laboratory results is dependent on patient physiology and the specific test being performed as recommended in the guidelines from the Center of Excellence for Transgender Health.

For patients who are not taking antiretroviral therapy (ART), CD4 count should be monitored every 3–6 months. For virally suppressed patients who have taken ART for ≤ 2 years, viral load testing is recommended every 3 to 4 months or as clinically indicated to confirm continuous viral suppression. For virally suppressed patients who have taken ART for > 2 years, viral load testing at 6-month intervals may be considered. For virally suppressed patients with treatment modifications due to drug toxicities or regimen simplification, viral load testing is recommended 4 to 8 weeks after treatment modification to confirm regimen effectiveness. For virally suppressed patients whose CD4 counts have consistently ranged from 300 to 500 cells/ μL for ≥ 2 years, annual monitoring of CD4 count is recommended. For virally suppressed patients whose CD4 counts have consistently been

> 500 cells/ μL for ≥ 2 years, continued CD4 monitoring is optional.

Frequent monitoring of CD4 count, especially among persons with higher counts (> 300 cells/ μL) and consistently suppressed viral loads, is generally not required for patient management. However, if clinically indicated, the CD4 count should be monitored more frequently (e.g., when changes in a patient's clinical status decrease CD4 count and thus prompt the need for prophylaxis for opportunistic infection).

The data on linkage to HIV medical care were based on persons whose infection was diagnosed during 2018 and who resided in any of the 42 jurisdictions at the time of diagnosis (Tables 3a–d). Linkage to HIV medical care within 1 month after HIV diagnosis was measured by documentation of ≥ 1 CD4 (count or percentage) or viral load tests performed ≤ 1 month after HIV diagnosis, including tests performed on the same date as the date of diagnosis. Linkage to HIV medical care within 3 months after HIV diagnosis was measured by documentation of ≥ 1 CD4 (count or percentage) or viral load tests performed ≤ 3 months after HIV diagnosis, including tests performed on the same date as the date of diagnosis.

The data on receipt of HIV medical care were based on persons whose infection was diagnosed by year-end 2017, who resided in any of the 42 jurisdictions as of their most recent known address, and who were alive at year-end 2018 (Tables 4a–d). Receipt of any HIV medical care was measured by documentation of ≥ 1 CD4 or viral load tests performed during 2018. Retention in care (receipt of continuous HIV medical care) was measured by documentation of ≥ 2 CD4 or viral load tests performed ≥ 3 months apart during 2018.

For analyses of linkage to, and retention in, care, the month and the year of the earliest HIV-positive test result reported to the surveillance system were used to determine the diagnosis date. Test results were excluded if the month of the sample collection was missing. For linkage to care, data were excluded if the month of diagnosis was missing. For receipt of care, retention in care, and viral suppression, data were excluded if the date of death (where applicable) occurred before the year of interest or was missing.

Viral Suppression

Viral suppression was measured among persons whose infection was diagnosed by year-end 2017, who

resided in any of the 42 jurisdictions as of their most recent known address during 2018, and who were alive at year-end 2018. Viral suppression was defined as a viral load result of <200 copies/mL at the most recent viral load test. The cutoff value of <200 copies/mL was based on the following definition of virologic failure: viral load of ≥ 200 copies/mL. If multiple viral load tests were performed during the same month and could thus qualify as “most recent,” the highest viral load (most severe) was selected. If the numerical result was missing or the result was a logarithmic value, the interpretation of the result (e.g., below limit) was used to determine viral suppression. Virologic failure may indicate lack of adherence to ART.

Viral suppression within 6 months of diagnosis was measured for persons whose infection was diagnosed during 2018 and who resided in any of the 42 jurisdictions at the time of diagnosis. Viral suppression was defined as a viral load result of <200 copies/mL at any viral load test within 6 months of an HIV diagnosis made during 2018.

Deaths

Persons whose HIV infections are reported to the National HIV Surveillance System (NHSS) are assumed to be alive unless their deaths have been reported to CDC. Death data were based on deaths of persons with diagnosed HIV infection and of persons with infection ever classified as stage 3 (AIDS), regardless of the cause of death. Jurisdiction-level data were based on area of residence at death. If information on residence at death was not available, the state where a person’s death occurred was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019.

Monitoring receipt of HIV medical care, retention in HIV medical care, viral suppression at most recent test, deaths and survival of persons with diagnosed HIV infection, and the prevalence-based HIV care continuum is dependent upon complete death ascertainment conducted by HIV surveillance programs for reporting to CDC. Due to incomplete reporting of deaths for the year 2018, death data for Alabama, Oklahoma, South Carolina, and the U.S. Virgin Islands should be interpreted with caution. Please use caution when interpreting trend data: the numbers for the most recent year are subject to uncertainty.

Survival Analyses

The Kaplan-Meier method was used to estimate the probability of survival (Tables 8a–f) for >3 years (36 months) for persons with diagnosed HIV infection and for persons whose infection had ever been classified as stage 3 (AIDS). To allow ≥ 3 years from the time of HIV diagnosis to a death date on or before December 31, 2018, tables were limited to data on persons whose diagnosis or stage 3 (AIDS) classification was made during 2010–2015. The results of survival analyses for areas with <100 diagnoses per year (i.e., <600 during the 6-year period) were unstable and therefore are not presented in this report.

Perinatally Acquired HIV Infection

Table 9a presents data for infants with infection attributed to perinatal transmission and reported to NHSS through December 2019. The data include all persons reported to NHSS with infection attributed to perinatal exposure, regardless of place of birth. Table 9b presents a subset of data from Table 9a: the data include only the persons whose case record denoted the United States as place of birth or residence at birth. The data on persons with perinatally acquired infection that are presented in Table 9b do not include persons who were born in a U.S. dependent area or a foreign country or whose residence at birth was unknown or missing from the case record.

Age

All tables in this report reflect data on persons aged ≥ 13 years, with the exception of Tables 9a/b (perinatally acquired HIV infection; birth years 2014–2018).

- Tables 4a–d and 5a–d (receipt of care and viral suppression): age was based on the person’s age at year-end 2018.
- Tables 7a–f (deaths): age was based on the person’s age at the time of death.
- Table 10 (prevalence): age was based on the person’s age at year-end 2017.
- All other tables: age was based on the person’s age at the time of HIV diagnosis.

Race and Ethnicity

In the *Federal Register* for October 30, 1997 [13], the Office of Management and Budget (OMB) announced the Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity and mandated implementation by January 1, 2003. At

a minimum, data should be collected for the following race categories:

- American Indian or Alaska Native
- Asian
- black or African American
- Native Hawaiian or other Pacific Islander
- white

Additionally, systems must be able to retain information when multiple race categories are reported. In addition to data on race, data on 2 categories of ethnicity should be collected:

- Hispanic or Latino
- not Hispanic or Latino

The Asian or Pacific Islander category displayed in annual surveillance reports published prior to the 2007 surveillance report was split into 2 categories: (1) Asian and (2) Native Hawaiian or other Pacific Islander. The Asian category (in tables where footnoted) includes persons categorized as Asian/Pacific Islander (referred to as legacy cases) that were reported before the new race categories were implemented in 2003 (e.g., diagnoses of HIV infection that were reported to CDC before 2003 but that were classified as stage 3 [AIDS] after 2003) and a small percentage of persons that were reported after 2003 but that were reported according to the old race category (Asian/Pacific Islander). In tables of diagnoses of HIV infection during 2014–2018, the Asian category does not include persons categorized as Asian/Pacific Islander because their diagnosis was made after 2003 and reported to CDC in accordance with OMB’s Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity [13].

This report also presents data for persons for whom multiple race categories are specified. In this report, persons categorized by race were not Hispanic or Latino. The number of persons reported in each race category may, however, include persons whose ethnicity was not reported.

Demographic information for the live birth registry is based on that of the mother [14]. Therefore, Tables 9a/b, which present estimated numbers and rates of perinatally acquired HIV infection, categorize race/ethnicity according to the mother’s race/ethnicity.

Geographic Designation

Data by area of residence reflect the address at the time of diagnosis of HIV infection or at the time of

stage 3 (AIDS) classification for Tables 1c/d, 2b, 3b, 8c/f, A1a–2, S1b, and S2b. In Tables 4a–d, 5a–d, A3–5, S3b, S4b, and S4d, area of residence is based on most recent known address as of December 31 of the specified year. For the death tables (7c and 7f), area of residence is based on residence at death. When information on residence at death is not available, the state where a person’s death occurred is used. For PrEP data, please see the Preexposure Prophylaxis (PrEP) Coverage—Geographic Designations section.

Transmission Categories

Transmission category is the term for the classification of cases that summarizes an adult’s or adolescent’s possible HIV risk factors; the summary classification results from selecting, from the presumed hierarchical order of probability, the 1 (single) risk factor most likely to have been responsible for transmission. For surveillance purposes, a diagnosis of HIV infection is counted only once in the hierarchy of transmission categories [15]. Adults or adolescents with >1 reported risk factor for HIV infection are classified in the transmission category listed first in the hierarchy. The exception is men who had sexual contact with other men *and* injected drugs; this group makes up a separate transmission category.

Hierarchical categories

- **Male-to-male sexual contact:** men who have had sexual contact with men (i.e., homosexual contact) and men who have had sexual contact with both men and women (i.e., bisexual contact)
- **Injection drug use (IDU):** persons who have injected non-prescription drugs
- **Male-to-male sexual contact *and* injection drug use** (male-to-male sexual contact and IDU): men who have had sexual contact with other men and injected non-prescription drugs
- **Heterosexual contact:** persons who have ever had heterosexual contact with a person known to have, or to be at high risk for, HIV infection
- **Perinatal:** persons infected through perinatal transmission but aged 13 years and older at time of diagnosis of HIV infection. Prevalence data and tables of death data includes persons infected through perinatal transmission but aged 13 years and older during the specified year or at death.

- **Other:** all other transmission categories (e.g., blood transfusion, hemophilia, risk factor not reported or not identified).

Cases of HIV infection reported without a risk factor listed in the hierarchy of transmission categories are classified as “no identified risk (NIR).” Cases classified as NIR include cases that are being followed up by local health department staff; cases in persons whose risk-factor information is missing because they died, declined to be interviewed, or were lost to follow-up; and cases in persons who were interviewed or for whom other follow-up information was available but for whom no risk factor was identified.

Because a substantial proportion of cases of HIV infection are reported to CDC without an identified risk factor, multiple imputation is used to assign a transmission category to these cases [15]. Multiple imputation is a statistical approach in which each missing transmission category is replaced with a set of plausible values that represent the uncertainty about the true, but missing, value [16]. Each resulting data set containing the plausible values is analyzed by using standard procedures, and the results from these analyses are then combined to produce the final results. In tables displaying transmission categories, multiple imputation was used for adults and adolescents, but not for children (because the number of cases in children is small, missing transmission categories were not imputed). For PrEP data, transmission category data are not available in the IQVIA Real World Data—Longitudinal Prescriptions database (IQVIA database).

Rates

In tables displaying data on deaths of persons with diagnosed HIV infection and deaths of persons with infection ever classified as stage 3 (AIDS) (Tables 7a–f), rates were calculated in 3 ways:

- **Rates of deaths per 100,000 population:** The population denominators used to compute the rates for the 50 states, the District of Columbia, and Puerto Rico were based on the Vintage 2018 postcensal estimates file (for years 2014–2018) from the U.S. Census Bureau [17]. The population denominators for American Samoa, Guam, the Northern Mariana Islands, the Republic of Palau, and the U.S. Virgin Islands were based on estimates and projections from the U.S. Census Bureau’s International Data Base [18]. Each rate

was calculated by dividing the total number of diagnoses (or deaths) for the calendar year by the population for that calendar year and then multiplying the result by 100,000.

- **Rates of deaths per 1,000 persons living with diagnosed HIV infection or living with infection ever classified as stage 3 (AIDS):** Rates were calculated by dividing the reported total number of deaths of persons with diagnosed HIV infection (or with infection classified as stage 3 [AIDS]) during the calendar year by the sum of the number of persons living with a diagnosis of HIV infection (or with infection classified as stage 3 [AIDS]) at the end of the previous calendar year plus the number of diagnoses of HIV infection (or stage 3 [AIDS] classification) during the current calendar year; the result was then multiplied by 1,000.
- **Age-adjusted rates of deaths per 100,000 population and per 1,000 persons living with diagnosed HIV infection or living with infection ever classified as stage 3 (AIDS):** Tables 7c and 7f include age-adjusted rates by area of residence in addition to crude rates. A standard population distribution was used to adjust death rates per 100,000 population and per 1,000 persons living with diagnosed HIV infection (or with infection ever classified as stage 3 [AIDS]). The age-adjusted rates are rates that would have existed if the age distribution of the designated population and the age distribution of the standard population were the same. The use of the U.S. 2000 standard population in calculating age-adjusted rates was based on recommendations by the National Center for Health Statistics [19, 20].

In the tables displaying data on perinatally acquired HIV infection (Tables 9a/b), rates were calculated per 100,000 live births [14].

Preexposure Prophylaxis (PrEP) Coverage

PrEP coverage, reported as a percentage, is defined as the number of persons aged 16 years and older who have been classified as having been prescribed PrEP during the specified year divided by the estimated number of persons who had indications for PrEP during the specified year (Tables 6a/b, A6, S5a/b).

Please use caution when interpreting PrEP data. Different data sources were used in the numerator and denominator to calculate PrEP coverage.

Persons prescribed PrEP

National pharmacy data from the IQVIA Real-World Longitudinal Prescriptions database (hereafter, IQVIA database) are used to classify persons aged 16 years and older who have been prescribed PrEP in the specific year. The IQVIA database captures prescriptions from all payers and represents approximately 92% of all prescriptions from retail pharmacies and 60%–86% from mail order outlets in the United States. The database does not include prescriptions from some closed health care systems that do not make their prescription data available to IQVIA. Therefore, these are minimum estimates of PrEP coverage. The database includes antiretroviral drugs prescribed, demographic variables of persons to whom the drugs were prescribed, and medical claims for these persons. IQVIA acquires medical claims and race/ethnicity data from various sources, including ambulatory, hospital, and consumer databases, and links these data to persons in the prescription database. The annual number of persons classified as having been prescribed PrEP was based on a validated algorithm that discerns whether tenofovir disoproxil fumarate and emtricitabine (TDF/FTC) were prescribed for PrEP after excluding prescriptions for HIV treatment, hepatitis B treatment, or HIV postexposure prophylaxis [21, 22].

The number of persons classified as having been prescribed PrEP is reported by sex, age group, and race/ethnicity. Transmission category data are not available in the IQVIA database and race/ethnicity data are available for <40% of persons with PrEP prescriptions. Please use caution when interpreting PrEP data by race/ethnicity. Race/ethnicity categories available in the IQVIA data include white, black, Hispanic, and other. The number of persons prescribed PrEP for each racial/ethnic group presented in this report are extrapolated by applying the racial/ethnic distribution of known records to those for which data on race/ethnicity were unknown.

Geographic designations

In the IQVIA database, a person's location is reported as a 3-digit ZIP code prefix (hereafter, ZIP3) assigned by the U.S. Postal Service. The number of persons prescribed PrEP at the state or county level is estimated using a probability-based approach used to crosswalk between ZIP3s and states/counties by using the most recent data from (a) U.S. Census Bureau's

American Community Survey (ACS) 5-year estimates by ZIP code Tabulate Area (ZCTA) [23], and (b) the U.S. Department of Housing and Urban Development's ZIP Code Crosswalk Files [24]. Because of reliability concerns, subnational estimates of <50 are not included in this report.

Persons with indications for PrEP

ACS and U.S. Census Bureau files were used to estimate the number of MSM (men who have sex with men) in a jurisdiction. Next, behavioral data from the National Health and Nutrition Examination Survey (NHANES) were used to estimate the proportion of HIV-negative MSM with indications for PrEP [25].

Finally, the number of HIV-negative MSM with indications for PrEP was multiplied by the ratio of percentage of HIV diagnoses during the specified year attributed to other major transmission risk groups compared to the percentage among MSM in a given state or county. The estimated number of persons with indications for PrEP in the 3 major transmission risk groups (MSM, heterosexuals, PWID [persons who inject drugs]) in each jurisdiction were then summed to yield a state or county-specific estimate. State estimates were then summed for a national total of persons with indications for PrEP [26].

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Table 1a. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥ 13 years, by year of diagnosis and selected characteristics, 2014–2018—United States

	2014			2015			2016			2017			2018		
	Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a	
		No.	%		No.	%		No.	%		No.	%		No.	%
Gender															
Male	31,896	7,124	22.3	31,873	6,804	21.3	31,459	6,627	21.1	30,488	6,341	20.8	29,753	6,172	20.7
Female	7,552	1,827	24.2	7,349	1,734	23.6	7,462	1,669	22.4	7,268	1,607	22.1	7,063	1,532	21.7
Transgender male-to-female ^b	522	82	15.7	555	64	11.5	616	86	14.0	549	76	13.8	553	74	13.4
Transgender female-to-male ^b	27	4	14.8	30	0	0.0	20	3	15.0	33	5	15.2	47	1	2.1
Additional gender identity ^c	8	1	12.5	10	0	0.0	12	3	25.0	13	2	15.4	12	1	8.3
Age at diagnosis (yr)															
13–24	9,147	807	8.8	9,070	755	8.3	8,661	756	8.7	8,273	744	9.0	7,817	713	9.1
25–34	12,625	2,177	17.2	13,046	2,164	16.6	13,610	2,233	16.4	13,376	2,167	16.2	13,355	2,135	16.0
35–44	8,006	2,327	29.1	7,661	2,141	27.9	7,497	2,029	27.1	7,267	1,879	25.9	7,196	1,852	25.7
45–54	6,504	2,253	34.6	6,308	2,148	34.1	5,972	1,968	33.0	5,604	1,888	33.7	5,294	1,755	33.2
≥55	3,723	1,474	39.6	3,732	1,394	37.4	3,829	1,402	36.6	3,831	1,353	35.3	3,766	1,325	35.2
Race/ethnicity															
American Indian/Alaska Native	175	45	25.7	178	42	23.6	220	51	23.2	208	44	21.2	186	30	16.1
Asian	894	211	23.6	920	206	22.4	945	219	23.2	937	234	25.0	871	232	26.6
Black/African American	17,175	3,747	21.8	17,139	3,486	20.3	17,012	3,452	20.3	16,460	3,309	20.1	15,994	3,161	19.8
Hispanic/Latino ^d	9,671	2,248	23.2	9,798	2,188	22.3	10,018	2,188	21.8	9,773	2,081	21.3	9,811	2,121	21.6
Native Hawaiian/other Pacific Islander	41	10	24.4	69	16	23.2	40	8	20.0	52	13	25.0	66	13	19.7
White	10,421	2,426	23.3	10,235	2,350	23.0	9,977	2,206	22.1	9,804	2,127	21.7	9,557	2,040	21.3
Multiple races	1,628	351	21.6	1,478	314	21.2	1,357	264	19.5	1,117	223	20.0	943	183	19.4
Transmission category^e															
Male-to-male sexual contact	26,467	5,345	20.2	26,394	5,084	19.3	26,134	4,994	19.1	25,455	4,845	19.0	24,669	4,776	19.4
Injection drug use															
Male	1,242	442	35.6	1,283	375	29.2	1,207	337	27.9	1,308	346	26.5	1,408	324	23.0
Female	978	226	23.1	1,023	205	20.0	1,006	206	20.5	1,063	209	19.6	1,056	211	20.0
Male-to-male sexual contact and injection drug use	1,428	236	16.5	1,467	275	18.8	1,451	245	16.9	1,383	211	15.3	1,361	205	15.1
Heterosexual contact ^f															
Male	3,253	1,171	36.0	3,259	1,119	34.3	3,267	1,131	34.6	2,871	1,008	35.1	2,845	935	32.9
Female	6,572	1,595	24.3	6,328	1,521	24.0	6,433	1,457	22.6	6,192	1,394	22.5	6,014	1,311	21.8
Other ^g															
Male	35	13	37.6	35	15	42.1	25	10	39.4	33	9	27.0	35	7.0	19.3
Female	31	11	35.1	29	8	28.6	45	9	20.4	46	9	20.2	40	10.0	26.3
Total	40,005	9,038	22.6	39,817	8,602	21.6	39,569	8,388	21.2	38,351	8,031	20.9	37,428	7,780	20.8

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only].

Note. Data are based on residence at time of diagnosis.

^a Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Hispanics/Latinos can be of any race.

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

Table 1b. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and selected characteristics, 2014–2018—United States and 6 dependent areas

	2014			2015			2016			2017			2018		
	Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a	
		No.	%		No.	%		No.	%		No.	%		No.	%
Gender															
Male	32,396	7,229	22.3	32,338	6,900	21.3	31,906	6,742	21.1	30,855	6,405	20.8	30,125	6,255	20.8
Female	7,697	1,868	24.3	7,459	1,759	23.6	7,567	1,691	22.3	7,362	1,631	22.2	7,143	1,549	21.7
Transgender male-to-female ^b	526	82	15.6	559	65	11.6	618	86	13.9	551	76	13.8	554	75	13.5
Transgender female-to-male ^b	27	4	14.8	30	0	0.0	20	3	15.0	33	5	15.2	47	1	2.1
Additional gender identity ^c	8	1	12.5	10	0	0.0	12	3	25.0	13	2	15.4	12	1	8.3
Age at diagnosis (yr)															
13–24	9,287	816	8.8	9,158	764	8.3	8,747	766	8.8	8,350	749	9.0	7,891	718	9.1
25–34	12,782	2,199	17.2	13,201	2,187	16.6	13,747	2,252	16.4	13,504	2,184	16.2	13,491	2,153	16.0
35–44	8,154	2,369	29.1	7,795	2,168	27.8	7,625	2,066	27.1	7,357	1,904	25.9	7,275	1,872	25.7
45–54	6,609	2,289	34.6	6,432	2,188	34.0	6,076	2,005	33.0	5,697	1,910	33.5	5,389	1,784	33.1
≥55	3,822	1,511	39.5	3,810	1,417	37.2	3,928	1,436	36.6	3,906	1,372	35.1	3,835	1,354	35.3
Race/ethnicity															
American Indian/Alaska Native	175	45	25.7	178	42	23.6	220	51	23.2	208	44	21.2	186	30	16.1
Asian	896	213	23.8	924	206	22.3	946	219	23.2	940	236	25.1	875	232	26.5
Black/African American	17,192	3,755	21.8	17,148	3,491	20.4	17,018	3,454	20.3	16,464	3,309	20.1	16,002	3,162	19.8
Hispanic/Latino ^d	10,291	2,382	23.1	10,358	2,301	22.2	10,557	2,320	22.0	10,222	2,165	21.2	10,246	2,218	21.6
Native Hawaiian/other Pacific Islander	44	11	25.0	72	18	25.0	46	10	21.7	55	15	27.3	68	15	22.1
White	10,427	2,427	23.3	10,237	2,352	23.0	9,979	2,207	22.1	9,807	2,127	21.7	9,560	2,041	21.3
Multiple races	1,629	351	21.5	1,479	314	21.2	1,357	264	19.5	1,118	223	19.9	944	183	19.4
Transmission category^e															
Male-to-male sexual contact	26,801	5,393	20.1	26,704	5,143	19.3	26,430	5,048	19.1	25,693	4,883	19.0	24,933	4,824	19.3
Injection drug use															
Male	1,302	457	35.1	1,334	383	28.7	1,247	353	28.3	1,342	352	26.2	1,434	333	23.2
Female	992	230	23.2	1,031	206	20.0	1,016	207	20.4	1,072	209	19.5	1,058	211	20.0
Male-to-male sexual contact and injection drug use	1,436	236	16.4	1,488	279	18.8	1,462	250	17.1	1,395	212	15.2	1,372	211	15.4
Heterosexual contact ^f															
Male	3,355	1,213	36.2	3,344	1,146	34.3	3,370	1,170	34.7	2,956	1,027	34.7	2,916	957	32.8
Female	6,702	1,631	24.3	6,430	1,544	24.0	6,528	1,478	22.6	6,276	1,418	22.6	6,092	1,328	21.8
Other ^g															
Male	35	13	37.6	35	15	42.0	25	10	39.5	33	9	26.7	35	7	19.3
Female	31	11	35.4	29	8	29.1	45	9	20.4	46	9	20.1	40	10	26.3
Total	40,654	9,184	22.6	40,396	8,724	21.6	40,123	8,525	21.2	38,814	8,119	20.9	37,881	7,881	20.8

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only].

Note. Data are based on residence at time of diagnosis.

^a Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Hispanics/Latinos can be of any race.

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

Table 1c. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and area of residence, 2014–2018—United States and 6 dependent areas

	2014			2015			2016			2017			2018		
	Stage 3 (AIDS) at diagnosis ^a			Stage 3 (AIDS) at diagnosis ^a			Stage 3 (AIDS) at diagnosis ^a			Stage 3 (AIDS) at diagnosis ^a			Stage 3 (AIDS) at diagnosis ^a		
	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%
Alabama	667	147	22.0	661	160	24.2	655	143	21.8	649	141	21.7	607	127	20.9
Alaska	38	4	10.5	25	5	20.0	37	6	16.2	29	7	24.1	23	4	17.4
Arizona	742	153	20.6	692	147	21.2	714	144	20.2	725	135	18.6	759	161	21.2
Arkansas	313	66	21.1	271	60	22.1	314	69	22.0	288	50	17.4	281	62	22.1
California	5,186	1,016	19.6	5,132	951	18.5	5,223	970	18.6	4,878	917	18.8	4,712	875	18.6
Colorado	377	101	26.8	376	98	26.1	422	84	19.9	438	79	18.0	399	95	23.8
Connecticut	295	89	30.2	275	70	25.5	258	67	26.0	274	65	23.7	258	64	24.8
Delaware	115	34	29.6	103	29	28.2	112	35	31.3	126	32	25.4	92	23	25.0
District of Columbia	417	72	17.3	368	54	14.7	350	59	16.9	313	39	12.5	275	43	15.6
Florida	4,498	1,034	23.0	4,589	985	21.5	4,653	987	21.2	4,555	970	21.3	4,573	942	20.6
Georgia	2,379	559	23.5	2,622	529	20.2	2,506	469	18.7	2,588	575	22.2	2,501	501	20.0
Hawaii	99	31	31.3	118	23	19.5	78	11	14.1	77	13	16.9	70	14	20.0
Idaho	22	7	31.8	40	14	35.0	46	7	15.2	46	11	23.9	37	15	40.5
Illinois	1,535	325	21.2	1,548	329	21.3	1,480	312	21.1	1,363	290	21.3	1,361	273	20.1
Indiana	465	116	24.9	632	121	19.1	486	109	22.4	517	124	24.0	512	128	25.0
Iowa	94	33	35.1	124	46	37.1	133	31	23.3	126	27	21.4	115	25	21.7
Kansas	131	37	28.2	153	35	22.9	147	34	23.1	120	25	20.8	155	41	26.5
Kentucky	344	89	25.9	341	79	23.2	337	109	32.3	364	87	23.9	372	76	20.4
Louisiana	1,201	275	22.9	1,096	241	22.0	1,107	259	23.4	1,002	229	22.9	972	186	19.1
Maine	60	7	11.7	47	13	27.7	53	12	22.6	29	11	37.9	30	10	33.3
Maryland	1,235	279	22.6	1,171	255	21.8	1,096	227	20.7	1,024	250	24.4	996	203	20.4
Massachusetts	650	152	23.4	600	139	23.2	641	139	21.7	600	123	20.5	650	151	23.2
Michigan	780	178	22.8	726	162	22.3	744	177	23.8	776	155	20.0	716	169	23.6
Minnesota	311	79	25.4	296	73	24.7	297	67	22.6	275	75	27.3	288	68	23.6
Mississippi	473	129	27.3	503	118	23.5	425	118	27.8	428	115	26.9	477	131	27.5
Missouri	465	110	23.7	463	95	20.5	509	120	23.6	504	84	16.7	447	97	21.7
Montana	14	5	35.7	19	5	26.3	20	3	15.0	31	6	19.4	23	5	21.7
Nebraska	87	28	32.2	79	22	27.8	76	18	23.7	88	13	14.8	79	25	31.6
Nevada	428	113	26.4	477	109	22.9	512	114	22.3	493	107	21.7	503	96	19.1
New Hampshire	41	9	22.0	25	3	12.0	40	11	27.5	33	5	15.2	38	10	26.3
New Jersey	1,242	333	26.8	1,198	316	26.4	1,188	277	23.3	1,121	241	21.5	1,025	238	23.2
New Mexico	134	39	29.1	134	32	23.9	145	31	21.4	140	29	20.7	122	29	23.8
New York	3,314	713	21.5	3,057	660	21.6	2,821	573	20.3	2,731	571	20.9	2,456	545	22.2
North Carolina	1,309	281	21.5	1,327	292	22.0	1,385	274	19.8	1,299	265	20.4	1,187	206	17.4

Table 1c. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	2014			2015			2016			2017			2018		
	Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a		Total No.	Stage 3 (AIDS) at diagnosis ^a	
		No.	%		No.	%		No.	%		No.	%		No.	%
North Dakota	20	5	25.0	20	9	45.0	46	12	26.1	37	10	27.0	36	5	13.9
Ohio	945	214	22.6	924	195	21.1	957	227	23.7	982	212	21.6	977	223	22.8
Oklahoma	303	71	23.4	314	69	22.0	293	74	25.3	300	63	21.0	280	60	21.4
Oregon	238	79	33.2	223	67	30.0	228	55	24.1	203	49	24.1	229	52	22.7
Pennsylvania	1,195	313	26.2	1,173	302	25.7	1,131	273	24.1	1,096	259	23.6	1,023	224	21.9
Rhode Island	89	24	27.0	64	19	29.7	71	19	26.8	84	24	28.6	75	22	29.3
South Carolina	761	169	22.2	670	171	25.5	745	179	24.0	709	183	25.8	715	175	24.5
South Dakota	29	8	27.6	24	11	45.8	43	12	27.9	39	8	20.5	29	7	24.1
Tennessee	757	157	20.7	737	129	17.5	724	115	15.9	720	122	16.9	762	145	19.0
Texas	4,423	946	21.4	4,522	967	21.4	4,526	957	21.1	4,354	862	19.8	4,388	854	19.5
Utah	114	24	21.1	123	25	20.3	140	25	17.9	114	22	19.3	119	18	15.1
Vermont	17	4	23.5	14	4	28.6	5	3	60.0	20	9	45.0	18	8	44.4
Virginia	902	198	22.0	957	184	19.2	907	192	21.2	863	170	19.7	858	171	19.9
Washington	441	103	23.4	450	105	23.3	425	104	24.5	433	96	22.2	504	110	21.8
West Virginia	84	23	27.4	72	26	36.1	68	20	29.4	76	22	28.9	86	21	24.4
Wisconsin	216	56	25.9	225	46	20.4	229	47	20.5	261	50	19.2	206	46	22.3
Wyoming	10	1	10.0	17	3	17.6	21	8	38.1	10	4	40.0	12	1	8.3
Subtotal	40,005	9,038	22.6	39,817	8,602	21.6	39,569	8,388	21.2	38,351	8,031	20.9	37,428	7,780	20.8
U.S. dependent areas															
American Samoa	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
Guam	3	0	0.0	6	2	33.3	4	2	50.0	6	4	66.7	7	3	42.9
Northern Mariana Islands	2	2	100	2	1	50.0	0	0	0.0	1	0	0.0	1	0	0.0
Puerto Rico	618	133	21.5	558	113	20.3	536	130	24.3	448	84	18.8	436	97	22.2
Republic of Palau	0	0	0.0	1	0	0.0	2	0	0.0	0	0	0.0	0	0	0.0
U.S. Virgin Islands	26	11	42.3	12	6	50.0	12	5	41.7	8	0	0.0	9	1	11.1
Subtotal	649	146	22.5	579	122	21.1	554	137	24.7	463	88	19.0	453	101	22.3
Total	40,654	9,184	22.6	40,396	8,724	21.6	40,123	8,525	21.2	38,814	8,119	20.9	37,881	7,881	20.8

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only].

Note. Data are based on residence at time of diagnosis.

^a Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection.

**Table 1d. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by race/ethnicity and area of residence, 2018—
United States**

	Black/African American			Hispanic/Latino ^a			White			Other ^b		
	Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c	
		No.	%		No.	%		No.	%		No.	%
Alabama	435	97	22.3	16	5	31.3	133	20	15.0	23	5	21.7
Alaska	1	0	0.0	1	0	0.0	7	1	14.3	14	3	21.4
Arizona	127	18	14.2	316	72	22.8	247	60	24.3	69	11	15.9
Arkansas	156	35	22.4	23	8	34.8	95	16	16.8	7	3	42.9
California	842	131	15.6	2,266	443	19.5	1,176	204	17.3	428	97	22.7
Colorado	59	18	30.5	147	47	32.0	178	30	16.9	15	0	0.0
Connecticut	104	30	28.8	68	19	27.9	78	13	16.7	8	2	25.0
Delaware	60	13	21.7	12	4	33.3	19	6	31.6	1	0	0.0
District of Columbia	208	34	16.3	30	6	20.0	23	2	8.7	14	1	7.1
Florida	1,830	399	21.8	1,556	282	18.1	1,083	235	21.7	104	26	25.0
Georgia	1,768	345	19.5	245	57	23.3	412	87	21.1	76	12	15.8
Hawaii	6	0	0.0	7	1	14.3	21	4	19.0	36	9	25.0
Idaho	2	1	50.0	8	5	62.5	24	8	33.3	3	1	33.3
Illinois	689	125	18.1	321	72	22.4	297	62	20.9	54	14	25.9
Indiana	226	52	23.0	55	15	27.3	204	53	26.0	27	8	29.6
Iowa	33	6	18.2	12	4	33.3	64	14	21.9	6	1	16.7
Kansas	58	12	20.7	29	9	31.0	60	19	31.7	8	1	12.5
Kentucky	113	20	17.7	24	5	20.8	217	45	20.7	18	6	33.3
Louisiana	681	119	17.5	58	16	27.6	215	50	23.3	18	1	5.6
Maine	4	1	25.0	3	1	33.3	21	7	33.3	2	1	50.0
Maryland	746	139	18.6	79	22	27.8	119	24	20.2	52	18	34.6
Massachusetts	201	49	24.4	179	45	25.1	234	46	19.7	36	11	30.6
Michigan	415	92	22.2	51	11	21.6	220	59	26.8	30	7	23.3
Minnesota	111	34	30.6	41	10	24.4	114	23	20.2	22	1	4.5
Mississippi	352	96	27.3	26	8	30.8	93	24	25.8	6	3	50.0
Missouri	213	35	16.4	33	11	33.3	181	44	24.3	20	7	35.0
Montana	2	1	50.0	3	0	0.0	15	4	26.7	3	0	0.0
Nebraska	19	4	21.1	19	8	42.1	35	11	31.4	6	2	33.3
Nevada	156	27	17.3	155	28	18.1	155	31	20.0	37	10	27.0
New Hampshire	3	2	66.7	3	1	33.3	30	6	20.0	2	1	50.0
New Jersey	395	73	18.5	373	101	27.1	198	48	24.2	59	16	27.1
New Mexico	7	3	42.9	65	11	16.9	23	7	30.4	27	8	29.6
New York	1,000	219	21.9	896	190	21.2	345	79	22.9	215	57	26.5
North Carolina	743	128	17.2	127	22	17.3	272	50	18.4	45	6	13.3
North Dakota	20	3	15.0	1	0	0.0	8	2	25.0	7	0	0.0
Ohio	460	106	23.0	58	17	29.3	423	94	22.2	36	6	16.7
Oklahoma	59	9	15.3	48	13	27.1	120	29	24.2	53	9	17.0
Oregon	14	1	7.1	65	21	32.3	136	27	19.9	14	3	21.4
Pennsylvania	479	102	21.3	194	40	20.6	301	73	24.3	49	9	18.4
Rhode Island	19	7	36.8	21	3	14.3	31	11	35.5	4	1	25.0
South Carolina	461	112	24.3	53	19	35.8	171	35	20.5	30	9	30.0
South Dakota	3	1	33.3	1	0	0.0	14	2	14.3	11	4	36.4
Tennessee	446	76	17.0	55	14	25.5	234	51	21.8	27	4	14.8
Texas	1,513	247	16.3	1,808	389	21.5	858	178	20.7	209	40	19.1
Utah	8	0	0.0	28	5	17.9	70	10	14.3	13	3	23.1
Vermont	2	0	0.0	0	0	0.0	14	7	50.0	2	1	50.0
Virginia	498	86	17.3	104	22	21.2	211	53	25.1	45	10	22.2
Washington	145	34	23.4	90	26	28.9	214	41	19.2	55	9	16.4
West Virginia	15	3	20.0	2	0	0.0	64	17	26.6	5	1	20.0
Wisconsin	87	16	18.4	35	13	37.1	71	17	23.9	13	0	0.0
Wyoming	0	0	0.0	1	0	0.0	9	1	11.1	2	0	0.0
Total	15,994	3,161	19.8	9,811	2,121	21.6	9,557	2,040	21.3	2,066	458	22.2

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only].

Note. Data are based on residence at time of diagnosis.

^a Hispanics/Latinos can be of any race.

^b Includes American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander, and multiple races.

^c Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection.

Table 2a. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by selected characteristics—41 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Gender											
Male	26,657	1,968	7.4	6,656	25.0	8,280	31.1	5,467	20.5	4,286	16.1
Female	6,299	306	4.9	1,907	30.3	1,715	27.2	1,362	21.6	1,009	16.0
Transgender male-to-female ^c	492	45	9.1	163	33.1	154	31.3	61	12.4	69	14.0
Transgender female-to-male ^c	42	11	26.2	16	38.1	10	23.8	0	0.0	5	11.9
Additional gender identity ^d	10	4	40.0	3	30.0	2	20.0	1	10.0	0	0.0
Age at diagnosis (yr)											
13–24	6,997	705	10.1	1,948	27.8	2,444	34.9	627	9.0	1,273	18.2
25–34	11,998	940	7.8	3,369	28.1	3,832	31.9	1,914	16.0	1,943	16.2
35–44	6,452	343	5.3	1,681	26.1	1,835	28.4	1,633	25.3	960	14.9
45–54	4,719	218	4.6	1,025	21.7	1,208	25.6	1,553	32.9	715	15.2
≥55	3,334	128	3.8	722	21.7	842	25.3	1,164	34.9	478	14.3
Race/ethnicity											
American Indian/Alaska Native	140	14	10.0	34	24.3	38	27.1	25	17.9	29	20.7
Asian	786	47	6.0	165	21.0	273	34.7	206	26.2	95	12.1
Black/African American	14,558	909	6.2	3,638	25.0	4,417	30.3	2,870	19.7	2,724	18.7
Hispanic/Latino ^e	8,776	664	7.6	2,283	26.0	2,819	32.1	1,862	21.2	1,148	13.1
Native Hawaiian/ other Pacific Islander	57	4	7.0	10	17.5	23	40.4	12	21.1	8	14.0
White	8,323	619	7.4	2,399	28.8	2,320	27.9	1,751	21.0	1,234	14.8
Multiple races	860	77	9.0	216	25.1	271	31.5	165	19.2	131	15.2
Transmission category^f											
Male-to-male sexual contact	22,237	1,752	7.9	5,677	25.5	7,076	31.8	4,246	19.1	3,486	15.7
Injection drug use											
Male	1,150	56	4.9	285	24.8	307	26.7	275	23.9	227	19.8
Female	898	56	6.3	267	29.7	210	23.4	184	20.5	181	20.1
Male-to-male sexual contact and injection drug use	1,210	127	10.5	384	31.7	334	27.6	180	14.9	186	15.4
Heterosexual contact ^g											
Male	2,533	82	3.2	469	18.5	712	28.1	822	32.4	448	17.7
Female	5,411	260	4.8	1,647	30.4	1,507	27.9	1,169	21.6	828	15.3
Total^h	33,500	2,334	7.0	8,745	26.1	10,161	30.3	6,891	20.6	5,369	16.0

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c "Transgender male-to-female" includes individuals who were assigned "male" sex at birth but have ever identified as "female" gender. "Transgender female-to-male" includes individuals who were assigned "female" sex at birth but have ever identified as "male" gender.

^d Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table 2b. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by area of residence—41 states and the District of Columbia

	Total No.	Stage 1				Stage 2		Stage 3 (AIDS)		Stage unknown ^b	
		Stage 0 ^a		(CD4 ≥500 cells/μL or ≥26%)		(CD4 = 200–499 cells/μL or 14%–25%)		(OI or CD4 <200 cells/μL or <14%)			
		No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	607	24	4.0	155	25.5	202	33.3	127	20.9	99	16.3
Alaska	23	2	8.7	6	26.1	8	34.8	4	17.4	3	13.0
California	4,712	467	9.9	1,203	25.5	1,411	29.9	875	18.6	756	16.0
Colorado	399	24	6.0	96	24.1	134	33.6	95	23.8	50	12.5
Delaware	92	3	3.3	23	25.0	32	34.8	23	25.0	11	12.0
District of Columbia	275	17	6.2	72	26.2	93	33.8	43	15.6	50	18.2
Florida	4,573	182	4.0	1,436	31.4	1,400	30.6	942	20.6	613	13.4
Georgia	2,501	82	3.3	671	26.8	781	31.2	501	20.0	466	18.6
Hawaii	70	5	7.1	15	21.4	26	37.1	14	20.0	10	14.3
Illinois	1,361	74	5.4	338	24.8	408	30.0	273	20.1	268	19.7
Indiana	512	10	2.0	121	23.6	135	26.4	128	25.0	118	23.0
Iowa	115	38	33.0	16	13.9	30	26.1	25	21.7	6	5.2
Louisiana	972	125	12.9	256	26.3	292	30.0	186	19.1	113	11.6
Maine	30	1	3.3	8	26.7	10	33.3	10	33.3	1	3.3
Maryland	996	86	8.6	264	26.5	314	31.5	203	20.4	129	13.0
Massachusetts	650	32	4.9	225	34.6	171	26.3	151	23.2	71	10.9
Michigan	716	62	8.7	182	25.4	224	31.3	169	23.6	79	11.0
Minnesota	288	19	6.6	87	30.2	72	25.0	68	23.6	42	14.6
Mississippi	477	30	6.3	56	11.7	112	23.5	131	27.5	148	31.0
Missouri	447	16	3.6	86	19.2	100	22.4	97	21.7	148	33.1
Montana	23	4	17.4	3	13.0	9	39.1	5	21.7	2	8.7
Nebraska	79	0	0.0	10	12.7	35	44.3	25	31.6	9	11.4
Nevada	503	26	5.2	165	32.8	181	36.0	96	19.1	35	7.0
New Hampshire	38	8	21.1	11	28.9	9	23.7	10	26.3	0	0.0
New Mexico	122	4	3.3	36	29.5	20	16.4	29	23.8	33	27.0
New York	2,456	231	9.4	637	25.9	803	32.7	545	22.2	240	9.8
North Carolina	1,187	108	9.1	260	21.9	315	26.5	206	17.4	298	25.1
North Dakota	36	1	2.8	10	27.8	17	47.2	5	13.9	3	8.3
Ohio	977	45	4.6	225	23.0	306	31.3	223	22.8	178	18.2
Oklahoma	280	20	7.1	56	20.0	71	25.4	60	21.4	73	26.1
Oregon	229	34	14.8	45	19.7	66	28.8	52	22.7	32	14.0
Rhode Island	75	8	10.7	16	21.3	26	34.7	22	29.3	3	4.0
South Carolina	715	43	6.0	172	24.1	248	34.7	175	24.5	77	10.8
South Dakota	29	0	0.0	7	24.1	8	27.6	7	24.1	7	24.1
Tennessee	762	26	3.4	200	26.2	216	28.3	145	19.0	175	23.0
Texas	4,388	306	7.0	1,110	25.3	1,349	30.7	854	19.5	769	17.5
Utah	119	10	8.4	36	30.3	43	36.1	18	15.1	12	10.1
Virginia	858	71	8.3	199	23.2	239	27.9	171	19.9	178	20.7
Washington	504	47	9.3	152	30.2	160	31.7	110	21.8	35	6.9
West Virginia	86	4	4.7	28	32.6	20	23.3	21	24.4	13	15.1
Wisconsin	206	39	18.9	46	22.3	60	29.1	46	22.3	15	7.3
Wyoming	12	0	0.0	5	41.7	5	41.7	1	8.3	1	8.3
Total	33,500	2,334	7.0	8,745	26.1	10,161	30.3	6,891	20.6	5,369	16.0

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

Table 2c. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native											
Gender											
Male	108	11	10.2	28	25.9	30	27.8	21	19.4	18	16.7
Female	25	0	0.0	5	20.0	6	24.0	4	16.0	10	40.0
Transgender male-to-female ^c	7	3	42.9	1	14.3	2	28.6	0	0.0	1	14.3
Transgender female-to-male ^c	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	28	2	7.1	11	39.3	12	42.9	1	3.6	2	7.1
25–34	49	7	14.3	13	26.5	10	20.4	5	10.2	14	28.6
35–44	26	1	3.8	5	19.2	6	23.1	5	19.2	9	34.6
45–54	25	4	16.0	4	16.0	4	16.0	10	40.0	3	12.0
≥55	12	0	0.0	1	8.3	6	50.0	4	33.3	1	8.3
Transmission category^e											
Male-to-male sexual contact	89	11	12.2	20	22.5	27	30.5	15	16.5	16	18.4
Injection drug use											
Male	4	0	0.0	0	4.9	2	39.0	2	51.2	0	4.9
Female	12	0	0.0	3	21.2	3	28.8	0	2.5	6	47.5
Male-to-male sexual contact and injection drug use	17	3	18.2	8	46.7	1	4.8	3	15.2	3	15.2
Heterosexual contact ^f											
Male	6	0	3.5	1	21.1	3	45.6	2	29.8	0	0.0
Female	13	0	0.0	3	18.9	3	19.7	4	28.0	4	33.3
Total	140	14	10.0	34	24.3	38	27.1	25	17.9	29	20.7
Asian											
Gender											
Male	684	40	5.8	146	21.3	242	35.4	172	25.1	84	12.3
Female	92	5	5.4	18	19.6	26	28.3	32	34.8	11	12.0
Transgender male-to-female ^c	8	2	25.0	1	12.5	4	50.0	1	12.5	0	0.0
Transgender female-to-male ^c	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	2	0	0.0	0	0.0	1	50.0	1	50.0	0	0.0
Age at diagnosis (yr)											
13–24	134	11	8.2	38	28.4	52	38.8	18	13.4	15	11.2
25–34	310	22	7.1	71	22.9	111	35.8	69	22.3	37	11.9
35–44	170	10	5.9	25	14.7	65	38.2	53	31.2	17	10.0
45–54	104	3	2.9	21	20.2	29	27.9	36	34.6	15	14.4
≥55	68	1	1.5	10	14.7	16	23.5	30	44.1	11	16.2
Transmission category^e											
Male-to-male sexual contact	616	40	6.5	129	20.9	230	37.2	147	23.9	71	11.5
Injection drug use											
Male	11	0	1.8	4	34.5	2	15.9	3	30.1	2	17.7
Female	4	0	0.0	1	12.5	2	47.5	1	20.0	1	20.0
Male-to-male sexual contact and injection drug use	12	2	16.4	3	20.5	3	20.5	4	31.1	1	11.5
Heterosexual contact ^f											
Male	52	0	0.0	11	20.3	13	24.8	19	36.4	10	18.6
Female	87	5	5.8	17	20.1	24	27.7	31	35.2	10	11.3
Total	786	47	6.0	165	21.0	273	34.7	206	26.2	95	12.1

Table 2c. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Black/African American											
Gender											
Male	10,588	738	7.0	2,426	22.9	3,303	31.2	2,037	19.2	2,084	19.7
Female	3,702	142	3.8	1,130	30.5	1,030	27.8	800	21.6	600	16.2
Transgender male-to-female ^c	252	25	9.9	76	30.2	80	31.7	33	13.1	38	15.1
Transgender female-to-male ^c	14	3	21.4	5	35.7	4	28.6	0	0.0	2	14.3
Additional gender identity ^d	2	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	3,723	365	9.8	946	25.4	1,326	35.6	346	9.3	740	19.9
25–34	5,134	342	6.7	1,378	26.8	1,596	31.1	854	16.6	964	18.8
35–44	2,479	96	3.9	614	24.8	702	28.3	614	24.8	453	18.3
45–54	1,779	67	3.8	367	20.6	425	23.9	584	32.8	336	18.9
≥55	1,443	39	2.7	333	23.1	368	25.5	472	32.7	231	16.0
Transmission category^e											
Male-to-male sexual contact	8,637	675	7.8	2,058	23.8	2,767	32.0	1,471	17.0	1,665	19.3
Injection drug use											
Male	365	19	5.1	85	23.2	90	24.6	90	24.8	81	22.3
Female	271	11	4.2	74	27.3	65	24.1	67	24.7	53	19.7
Male-to-male sexual contact and injection drug use	238	17	7.1	64	26.9	63	26.3	39	16.4	55	23.2
Heterosexual contact ^f											
Male	1,587	53	3.4	291	18.3	459	28.9	467	29.4	316	19.9
Female	3,424	134	3.9	1,056	30.8	962	28.1	727	21.2	546	15.9
Total	14,558	909	6.2	3,638	25.0	4,417	30.3	2,870	19.7	2,724	18.7
Hispanic/Latino^g											
Gender											
Male	7,583	601	7.9	1,901	25.1	2,470	32.6	1,617	21.3	994	13.1
Female	1,028	48	4.7	327	31.8	299	29.1	226	22.0	128	12.5
Transgender male-to-female ^c	152	12	7.9	50	32.9	47	30.9	19	12.5	24	15.8
Transgender female-to-male ^c	11	3	27.3	4	36.4	2	18.2	0	0.0	2	18.2
Additional gender identity ^d	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	1,732	190	11.0	510	29.4	612	35.3	154	8.9	266	15.4
25–34	3,380	289	8.6	916	27.1	1,160	34.3	545	16.1	470	13.9
35–44	1,846	104	5.6	482	26.1	552	29.9	507	27.5	201	10.9
45–54	1,209	54	4.5	244	20.2	351	29.0	424	35.1	136	11.2
≥55	609	27	4.4	131	21.5	144	23.6	232	38.1	75	12.3
Transmission category^e											
Male-to-male sexual contact	6,685	550	8.2	1,717	25.7	2,223	33.2	1,330	19.9	866	13.0
Injection drug use											
Male	266	6	2.3	65	24.4	72	27.2	78	29.5	44	16.6
Female	127	4.0	3.3	41	32.4	37.0	28.9	28	21.8	17	13.6
Male-to-male sexual contact and injection drug use	303	39	12.7	89	29.2	91	30.0	45	14.7	40	13.3
Heterosexual contact ^f											
Male	478	18	3.8	81	17.0	131	27.4	182	38.0	66	13.9
Female	909	47	5.1	288	31.6	264	29.1	198	21.8	113	12.4
Total	8,776	664	7.6	2,283	26.0	2,819	32.1	1,862	21.2	1,148	13.1

Table 2c. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Native Hawaiian/other Pacific Islander											
Gender											
Male	52	3	5.8	8	15.4	21	40.4	12	23.1	8	15.4
Female	2	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0
Transgender male-to-female ^c	3	0	0.0	1	33.3	2	66.7	0	0.0	0	0.0
Transgender female-to-male ^c	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	13	0	0.0	1	7.7	9	69.2	2	15.4	1	7.7
25–34	25	4	16.0	4	16.0	7	28.0	4	16.0	6	24.0
35–44	10	0	0.0	2	20.0	4	40.0	3	30.0	1	10.0
45–54	3	0	0.0	0	0.0	2	66.7	1	33.3	0	0.0
≥55	6	0	0.0	3	50.0	1	16.7	2	33.3	0	0.0
Transmission category^e											
Male-to-male sexual contact	48	3	6.2	9	18.7	19	40.2	11	22.6	6	12.2
Injection drug use											
Male	1	0	0.0	0	0.0	1	90.9	0	0.0	0	9.1
Female	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Male-to-male sexual contact and injection drug use	3	0	0.0	0	0.0	2	67.7	1	32.3	0	0.0
Heterosexual contact ^f											
Male	3	0	0.0	0	0.0	1	19.2	0	3.8	2	76.9
Female	2	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0
Total	57	4	7.0	10	17.5	23	40.4	12	21.1	8	14.0
White											
Gender											
Male	6,985	518	7.4	1,995	28.6	1,993	28.5	1,483	21.2	996	14.3
Female	1,273	95	7.5	372	29.2	309	24.3	263	20.7	234	18.4
Transgender male-to-female ^c	47	1	2.1	24	51.1	14	29.8	5	10.6	3	6.4
Transgender female-to-male ^c	16	4	25.0	7	43.8	4	25.0	0	0.0	1	6.3
Additional gender identity ^d	2	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	1,155	111	9.6	387	33.5	353	30.6	90	7.8	214	18.5
25–34	2,776	244	8.8	900	32.4	842	30.3	393	14.2	397	14.3
35–44	1,769	125	7.1	518	29.3	457	25.8	407	23.0	262	14.8
45–54	1,492	85	5.7	362	24.3	374	25.1	462	31.0	209	14.0
≥55	1,131	54	4.8	232	20.5	294	26.0	399	35.3	152	13.4
Transmission category^e											
Male-to-male sexual contact	5,605	423	7.6	1,610	28.7	1,620	28.9	1,173	20.9	779	13.9
Injection drug use											
Male	473	29	6.1	126	26.6	132	28.0	90	19.0	96	20.3
Female	447	36	8.1	134	30.0	97	21.7	82	18.3	98	21.9
Male-to-male sexual contact and injection drug use	585	60	10.2	205	35.0	160	27.4	83	14.2	77	13.2
Heterosexual contact ^f											
Male	364	8	2.2	79	21.7	92	25.4	139	38.3	45	12.4
Female	836	62	7.4	244	29.2	216	25.8	180	21.5	135	16.2
Total	8,323	619	7.4	2,399	28.8	2,320	27.9	1,751	21.0	1,234	14.8

Table 2c. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Multiple races											
Gender											
Male	657	57	8.7	152	23.1	221	33.6	125	19.0	102	15.5
Female	177	15	8.5	54	30.5	45	25.4	37	20.9	26	14.7
Transgender male-to-female ^c	23	2	8.7	10	43.5	5	21.7	3	13.0	3	13.0
Transgender female-to-male ^c	1	1	100	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	2	2	100	0	0.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)											
13–24	212	26	12.3	55	25.9	80	37.7	16	7.5	35	16.5
25–34	324	32	9.9	87	26.9	106	32.7	44	13.6	55	17.0
35–44	152	7	4.6	35	23.0	49	32.2	44	28.9	17	11.2
45–54	107	5	4.7	27	25.2	23	21.5	36	33.6	16	15.0
≥55	65	7	10.8	12	18.5	13	20.0	25	38.5	8	12.3
Transmission category^e											
Male-to-male sexual contact	556	50	9.0	134	24.1	190	34.2	99	17.8	83	14.9
Injection drug use											
Male	30	2	6.7	5	18.1	8	26.1	11	36.8	4	12.4
Female	38	5	12.5	15	39.4	6	14.6	7	17.8	6	15.7
Male-to-male sexual contact and injection drug use	52	6	12.4	16	30.4	14	27.1	6	10.9	10	19.2
Heterosexual contact ^f											
Male	44	2	5.5	7	15.2	14	31.6	13	28.6	8	19.1
Female	139	11	8.1	38	27.5	39	28.2	30	21.7	20	14.5
Total	860	77	9.0	216	25.1	271	31.5	165	19.2	131	15.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c "Transgender male-to-female" includes individuals who were assigned "male" sex at birth but have ever identified as "female" gender. "Transgender female-to-male" includes individuals who were assigned "female" sex at birth but have ever identified as "male" gender.

^d Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Hispanics/Latinos can be of any race.

Table 2d. Stage of disease at time of HIV diagnosis during 2018 among males aged ≥13 years with infection attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—41 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native											
13–24	22	1	4.5	9	39.9	10	43.0	1	4.5	2	8.1
25–34	31	5	16.2	6	18.8	9	27.9	4	12.0	8	25.0
35–44	17	1	6.0	3	17.9	4	23.8	4	23.8	5	28.6
45–54	13	4	30.2	1	9.5	1	4.8	5	39.7	2	15.9
≥55	6	0	0.0	1	16.4	4	68.9	1	14.8	0	0.0
Asian											
13–24	118	9	7.7	36	30.5	46	38.9	14	12.0	13	11.0
25–34	263	19	7.2	57	21.8	101	38.4	55	20.7	31	11.9
35–44	129	9	7.0	14	10.9	55	42.6	39	29.9	13	9.7
45–54	72	2	2.8	17	23.7	21	28.9	23	32.6	9	12.0
≥55	35	1	2.8	5	13.4	7	21.1	17	47.3	5	15.4
Black/African American											
13–24	2,974	321	10.8	693	23.3	1,101	37.0	277	9.3	581	19.6
25–34	3,562	266	7.5	935	26.3	1,125	31.6	578	16.2	658	18.5
35–44	1,115	52	4.7	257	23.0	315	28.2	272	24.4	220	19.8
45–54	629	29	4.6	102	16.2	142	22.6	214	34.0	142	22.6
≥55	357	6	1.8	72	20.1	85	23.7	130	36.5	64	17.9
Hispanic/Latino^c											
13–24	1,469	171	11.6	412	28.1	528	35.9	131	8.9	227	15.4
25–34	2,778	243	8.7	735	26.4	975	35.1	445	16.0	380	13.7
35–44	1,346	80	5.9	347	25.8	409	30.4	373	27.7	137	10.2
45–54	771	42	5.5	154	20.0	230	29.8	259	33.6	85	11.1
≥55	321	13	4.2	69	21.5	81	25.2	121	37.8	36	11.3
Native Hawaiian/other Pacific Islander											
13–24	11	0	0.0	1	9.3	7	63.9	2	18.5	1	8.3
25–34	21	3	14.5	4	19.3	7	32.4	3	14.5	4	19.3
35–44	10	0	0.0	2	20.4	4	38.8	3	30.6	1	10.2
45–54	2	0	0.0	0	0.0	1	50.0	1	50.0	0	0.0
≥55	5	0	0.0	2	40.8	1	20.4	2	38.8	0	0.0
White											
13–24	870	81	9.3	286	32.8	281	32.3	70	8.1	153	17.5
25–34	1,878	169	9.0	590	31.4	588	31.3	278	14.8	252	13.4
35–44	1,069	71	6.7	316	29.5	276	25.9	268	25.1	138	12.9
45–54	993	61	6.1	248	25.0	262	26.3	293	29.5	130	13.1
≥55	795	42	5.3	169	21.3	213	26.8	265	33.3	106	13.4
Multiple races											
13–24	165	20	12.1	42	25.3	66	40.3	10	6.1	27	16.3
25–34	221	19	8.4	58	26.1	72	32.8	32	14.6	40	18.1
35–44	94	6	6.4	19	20.6	33	34.9	27	29.0	9	9.2
45–54	49	5	9.7	9	17.6	11	21.5	20	39.5	6	11.7
≥55	27	1	3.6	7	25.5	8	29.6	10	35.8	2	5.5
Total	22,237	1,752	7.9	5,677	25.5	7,076	31.8	4,246	19.1	3,486	15.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c Hispanics/Latinos can be of any race.

Table 3a. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥13 years, by selected characteristics—41 states and the District of Columbia

	Total diagnoses No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Gender									
Male	26,657	21,392	80.2	5,265	19.8	23,384	87.7	3,273	12.3
Female	6,299	5,029	79.8	1,270	20.2	5,564	88.3	735	11.7
Transgender male-to-female ^a	492	396	80.5	96	19.5	434	88.2	58	11.8
Transgender female-to-male ^a	42	32	76.2	10	23.8	36	85.7	6	14.3
Additional gender identity ^b	10	9	90.0	1	10.0	10	100	0	0.0
Age at diagnosis (yr)									
13–24	6,997	5,400	77.2	1,597	22.8	6,043	86.4	954	13.6
25–34	11,998	9,540	79.5	2,458	20.5	10,475	87.3	1,523	12.7
35–44	6,452	5,307	82.3	1,145	17.7	5,749	89.1	703	10.9
45–54	4,719	3,851	81.6	868	18.4	4,176	88.5	543	11.5
≥55	3,334	2,760	82.8	574	17.2	2,985	89.5	349	10.5
Race/ethnicity									
American Indian/Alaska Native	140	109	77.9	31	22.1	120	85.7	20	14.3
Asian	786	662	84.2	124	15.8	708	90.1	78	9.9
Black/African American	14,558	11,226	77.1	3,332	22.9	12,496	85.8	2,062	14.2
Hispanic/Latino ^c	8,776	7,230	82.4	1,546	17.6	7,834	89.3	942	10.7
Native Hawaiian/other Pacific Islander	57	50	87.7	7	12.3	53	93.0	4	7.0
White	8,323	6,876	82.6	1,447	17.4	7,458	89.6	865	10.4
Multiple races	860	705	82.0	155	18.0	759	88.3	101	11.7
Transmission category^d									
Male-to-male sexual contact	22,237	17,963	80.8	4,273	19.2	19,592	88.1	2,645	11.9
Injection drug use									
Male	1,150	875	76.1	275	23.9	967	84.1	183	15.9
Female	898	679	75.6	219	24.4	770	85.7	128	14.3
Male-to-male sexual contact and injection drug use	1,210	963	79.6	247	20.4	1,066	88.1	144	11.9
Heterosexual contact ^e									
Male	2,533	1,973	77.9	561	22.1	2,180	86.0	354	14.0
Female	5,411	4,355	80.5	1,056	19.5	4,801	88.7	609	11.3
Total^f	33,500	26,858	80.2	6,642	19.8	29,428	87.8	4,072	12.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month or ≤3 months after HIV diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

^f Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table 3b. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥ 13 years, by area of residence—41 states and the District of Columbia

	Total No.	≤ 1 month				≤ 3 months			
		≥ 1 CD4 or VL tests		No CD4 or VL test		≥ 1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Alabama	607	488	80.4	119	19.6	535	88.1	72	11.9
Alaska	23	20	87.0	3	13.0	21	91.3	2	8.7
California	4,712	3,744	79.5	968	20.5	4,055	86.1	657	13.9
Colorado	399	332	83.2	67	16.8	364	91.2	35	8.8
Delaware	92	74	80.4	18	19.6	81	88.0	11	12.0
District of Columbia	275	231	84.0	44	16.0	244	88.7	31	11.3
Florida	4,573	3,766	82.4	807	17.6	4,076	89.1	497	10.9
Georgia	2,501	1,965	78.6	536	21.4	2,120	84.8	381	15.2
Hawaii	70	60	85.7	10	14.3	63	90.0	7	10.0
Illinois	1,361	1,086	79.8	275	20.2	1,180	86.7	181	13.3
Indiana	512	350	68.4	162	31.6	415	81.1	97	18.9
Iowa	115	107	93.0	8	7.0	109	94.8	6	5.2
Louisiana	972	767	78.9	205	21.1	866	89.1	106	10.9
Maine	30	29	96.7	1	3.3	29	96.7	1	3.3
Maryland	996	814	81.7	182	18.3	893	89.7	103	10.3
Massachusetts	650	562	86.5	88	13.5	595	91.5	55	8.5
Michigan	716	590	82.4	126	17.6	652	91.1	64	8.9
Minnesota	288	234	81.3	54	18.8	257	89.2	31	10.8
Mississippi	477	357	74.8	120	25.2	411	86.2	66	13.8
Missouri	447	316	70.7	131	29.3	384	85.9	63	14.1
Montana	23	21	91.3	2	8.7	21	91.3	2	8.7
Nebraska	79	64	81.0	15	19.0	71	89.9	8	10.1
Nevada	503	441	87.7	62	12.3	474	94.2	29	5.8
New Hampshire	38	37	97.4	1	2.6	38	100	0	0.0
New Mexico	122	102	83.6	20	16.4	114	93.4	8	6.6
New York	2,456	2,121	86.4	335	13.6	2,244	91.4	212	8.6
North Carolina	1,187	932	78.5	255	21.5	1,067	89.9	120	10.1
North Dakota	36	30	83.3	6	16.7	34	94.4	2	5.6
Ohio	977	785	80.3	192	19.7	862	88.2	115	11.8
Oklahoma	280	196	70.0	84	30.0	234	83.6	46	16.4
Oregon	229	188	82.1	41	17.9	206	90.0	23	10.0
Rhode Island	75	68	90.7	7	9.3	72	96.0	3	4.0
South Carolina	715	617	86.3	98	13.7	657	91.9	58	8.1
South Dakota	29	26	89.7	3	10.3	26	89.7	3	10.3
Tennessee	762	559	73.4	203	26.6	640	84.0	122	16.0
Texas	4,388	3,307	75.4	1,081	24.6	3,710	84.5	678	15.5
Utah	119	99	83.2	20	16.8	109	91.6	10	8.4
Virginia	858	659	76.8	199	23.2	742	86.5	116	13.5
Washington	504	457	90.7	47	9.3	473	93.8	31	6.2
West Virginia	86	70	81.4	16	18.6	80	93.0	6	7.0
Wisconsin	206	178	86.4	28	13.6	193	93.7	13	6.3
Wyoming	12	9	75.0	3	25.0	11	91.7	1	8.3
Total	33,500	26,858	80.2	6,642	19.8	29,428	87.8	4,072	12.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Linkage to HIV medical care was measured by documentation of ≥ 1 CD4 or VL tests ≤ 1 month or ≤ 3 months after HIV diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

Table 3c. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia

	Total No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native									
Gender									
Male	108	86	79.6	22	20.4	94	87.0	14	13.0
Female	25	17	68.0	8	32.0	20	80.0	5	20.0
Transgender male-to-female ^a	7	6	85.7	1	14.3	6	85.7	1	14.3
Transgender female-to-male ^a	0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^b	0	0	0.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)									
13–24	28	21	75.0	7	25.0	25	89.3	3	10.7
25–34	49	36	73.5	13	26.5	41	83.7	8	16.3
35–44	26	20	76.9	6	23.1	20	76.9	6	23.1
45–54	25	22	88.0	3	12.0	23	92.0	2	8.0
≥55	12	10	83.3	2	16.7	11	91.7	1	8.3
Transmission category^c									
Male-to-male sexual contact	89	68	77.2	20	22.8	75	85.0	13	15.0
Injection drug use									
Male	4	4	95.1	0	4.9	4	95.1	0	4.9
Female	12	8	70.3	4	29.7	10	87.3	2	12.7
Male-to-male sexual contact and injection drug use	17	15	90.9	2	9.1	15	90.9	2	9.1
Heterosexual contact ^d									
Male	6	5	80.7	1	19.3	6	100	0	0.0
Female	13	9	65.9	5	34.1	10	73.5	4	26.5
Total^e	140	109	77.9	31	22.1	120	85.7	20	14.3
Asian									
Gender									
Male	684	575	84.1	109	15.9	616	90.1	68	9.9
Female	92	78	84.8	14	15.2	82	89.1	10	10.9
Transgender male-to-female ^a	8	8	100	0	0.0	8	100	0	0.0
Transgender female-to-male ^a	0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^b	2	1	50.0	1	50.0	2	100	0	0.0
Age at diagnosis (yr)									
13–24	134	121	90.3	13	9.7	125	93.3	9	6.7
25–34	310	250	80.6	60	19.4	274	88.4	36	11.6
35–44	170	150	88.2	20	11.8	158	92.9	12	7.1
45–54	104	88	84.6	16	15.4	93	89.4	11	10.6
≥55	68	53	77.9	15	22.1	58	85.3	10	14.7
Transmission category^c									
Male-to-male sexual contact	616	527	85.6	89	14.4	558	90.6	58	9.4
Injection drug use									
Male	11	7	61.1	4	38.9	10	91.2	1	8.8
Female	4	3	72.5	1	27.5	3	82.5	1	17.5
Male-to-male sexual contact and injection drug use	12	10	79.5	3	20.5	11	88.5	1	11.5
Heterosexual contact ^d									
Male	52	38	73.3	14	26.7	44	85.7	7	14.3
Female	87	74	85.8	12	14.2	78	89.7	9	10.3
Total^e	786	662	84.2	124	15.8	708	90.1	78	9.9

Table 3c. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Black/African American									
Gender									
Male	10,588	8,053	76.1	2,535	23.9	8,985	84.9	1,603	15.1
Female	3,702	2,960	80.0	742	20.0	3,276	88.5	426	11.5
Transgender male-to-female ^a	252	201	79.8	51	20.2	222	88.1	30	11.9
Transgender female-to-male ^a	14	10	71.4	4	28.6	11	78.6	3	21.4
Additional gender identity ^b	2	2	100	0	0.0	2	100	0	0.0
Age at diagnosis (yr)									
13–24	3,723	2,812	75.5	911	24.5	3,173	85.2	550	14.8
25–34	5,134	3,914	76.2	1,220	23.8	4,373	85.2	761	14.8
35–44	2,479	1,968	79.4	511	20.6	2,151	86.8	328	13.2
45–54	1,779	1,361	76.5	418	23.5	1,522	85.6	257	14.4
≥55	1,443	1,171	81.2	272	18.8	1,277	88.5	166	11.5
Transmission category^c									
Male-to-male sexual contact	8,637	6,604	76.5	2,033	23.5	7,364	85.3	1,273	14.7
Injection drug use									
Male	365	270	74.0	95	26.0	298	81.6	67	18.4
Female	271	208	76.9	62	23.1	231	85.3	40	14.7
Male-to-male sexual contact and injection drug use	238	178	74.5	61	25.5	198	83.2	40	16.8
Heterosexual contact ^d									
Male	1,587	1,193	75.2	394	24.8	1,337	84.2	250	15.8
Female	3,424	2,742	80.1	682	19.9	3,036	88.7	388	11.3
Total^e	14,558	11,226	77.1	3,332	22.9	12,496	85.8	2,062	14.2
Hispanic/Latino^f									
Gender									
Male	7,583	6,257	82.5	1,326	17.5	6,765	89.2	818	10.8
Female	1,028	845	82.2	183	17.8	928	90.3	100	9.7
Transgender male-to-female ^a	152	119	78.3	33	21.7	131	86.2	21	13.8
Transgender female-to-male ^a	11	7	63.6	4	36.4	8	72.7	3	27.3
Additional gender identity ^b	2	2	100	0	0.0	2	100	0	0.0
Age at diagnosis (yr)									
13–24	1,732	1,366	78.9	366	21.1	1,514	87.4	218	12.6
25–34	3,380	2,764	81.8	616	18.2	2,981	88.2	399	11.8
35–44	1,846	1,565	84.8	281	15.2	1,684	91.2	162	8.8
45–54	1,209	1,030	85.2	179	14.8	1,104	91.3	105	8.7
≥55	609	505	82.9	104	17.1	551	90.5	58	9.5
Transmission category^c									
Male-to-male sexual contact	6,685	5,525	82.6	1,160	17.4	5,975	89.4	711	10.6
Injection drug use									
Male	266	209	78.7	57	21.3	227	85.5	39	14.5
Female	127	101	79.4	26	20.6	116	91.3	11	8.7
Male-to-male sexual contact and injection drug use	303	243	80.2	60	19.8	268	88.5	35	11.5
Heterosexual contact ^d									
Male	478	397	82.9	82	17.1	424	88.6	55	11.4
Female	909	750	82.4	160	17.6	817	89.9	92	10.1
Total^e	8,776	7,230	82.4	1,546	17.6	7,834	89.3	942	10.7

Table 3c. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Native Hawaiian/other Pacific Islander									
Gender									
Male	52	45	86.5	7	13.5	48	92.3	4	7.7
Female	2	2	100	0	0.0	2	100	0	0.0
Transgender male-to-female ^a	3	3	100	0	0.0	3	100	0	0.0
Transgender female-to-male ^a	0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^b	0	0	0.0	0	0.0	0	0.0	0	0.0
Age at diagnosis (yr)									
13–24	13	12	92.3	1	7.7	13	100	0	0.0
25–34	25	21	84.0	4	16.0	22	88.0	3	12.0
35–44	10	8	80.0	2	20.0	9	90.0	1	10.0
45–54	3	3	100	0	0.0	3	100	0	0.0
≥55	6	6	100	0	0.0	6	100	0	0.0
Transmission category^c									
Male-to-male sexual contact	48	43	88.2	6	11.8	45	93.8	3	6.2
Injection drug use									
Male	1	1	90.9	0	9.1	1	100	0	0.0
Female	0	0	0.0	0	0.0	0	0.0	0	0.0
Male-to-male sexual contact and injection drug use	3	3	100	0	0.0	3	100	0	0.0
Heterosexual contact ^d									
Male	3	1	53.8	1	46.2	2	61.5	1	38.5
Female	2	2	100	0	0.0	2	100	0	0.0
Total^e	57	50	87.7	7	12.3	53	93.0	4	7.0
White									
Gender									
Male	6,985	5,834	83.5	1,151	16.5	6,294	90.1	691	9.9
Female	1,273	984	77.3	289	22.7	1,102	86.6	171	13.4
Transgender male-to-female ^a	47	42	89.4	5	10.6	44	93.6	3	6.4
Transgender female-to-male ^a	16	14	87.5	2	12.5	16	100	0	0.0
Additional gender identity ^b	2	2	100	0	0.0	2	100	0	0.0
Age at diagnosis (yr)									
13–24	1,155	896	77.6	259	22.4	1,009	87.4	146	12.6
25–34	2,776	2,298	82.8	478	17.2	2,501	90.1	275	9.9
35–44	1,769	1,470	83.1	299	16.9	1,588	89.8	181	10.2
45–54	1,492	1,255	84.1	237	15.9	1,337	89.6	155	10.4
≥55	1,131	957	84.6	174	15.4	1,023	90.5	108	9.5
Transmission category^c									
Male-to-male sexual contact	5,605	4,734	84.5	871	15.5	5,079	90.6	527	9.4
Injection drug use									
Male	473	359	75.9	114	24.1	401	84.6	73	15.4
Female	447	329	73.6	118	26.4	378	84.5	69	15.5
Male-to-male sexual contact and injection drug use	585	477	81.5	108	18.5	527	90.1	58	9.9
Heterosexual contact ^d									
Male	364	303	83.3	61	16.7	329	90.4	35	9.6
Female	836	665	79.6	171	20.4	737	88.1	100	11.9
Total^e	8,323	6,876	82.6	1,447	17.4	7,458	89.6	865	10.4

Table 3c. Linkage to HIV medical care after HIV diagnosis during 2018 among persons aged ≥13 years, by race/ethnicity and selected characteristics—41 states and the District of Columbia (cont)

	Total No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Multiple races									
Gender									
Male	657	542	82.5	115	17.5	582	88.6	75	11.4
Female	177	143	80.8	34	19.2	154	87.0	23	13.0
Transgender male-to-female ^a	23	17	73.9	6	26.1	20	87.0	3	13.0
Transgender female-to-male ^a	1	1	100	0	0.0	1	100	0	0.0
Additional gender identity ^b	2	2	100	0	0.0	2	100	0	0.0
Age at diagnosis (yr)									
13–24	212	172	81.1	40	18.9	184	86.8	28	13.2
25–34	324	257	79.3	67	20.7	283	87.3	41	12.7
35–44	152	126	82.9	26	17.1	139	91.4	13	8.6
45–54	107	92	86.0	15	14.0	94	87.9	13	12.1
≥55	65	58	89.2	7	10.8	59	90.8	6	9.2
Transmission category^c									
Male-to-male sexual contact	556	462	83.0	94	17.0	495	89.1	61	10.9
Injection drug use									
Male	30	25	84.6	5	15.4	27	88.6	3	11.4
Female	38	30	79.3	8	20.7	32	84.0	6	16.0
Male-to-male sexual contact and injection drug use	52	38	73.1	14	26.9	44	84.9	8	15.1
Heterosexual contact ^d									
Male	44	36	82.3	8	17.7	38	87.0	6	13.0
Female	139	113	81.1	26	18.9	122	87.8	17	12.2
Total^e	860	705	82.0	155	18.0	759	88.3	101	11.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month or ≤3 months after HIV diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

^e Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

^f Hispanics/Latinos can be of any race.

Table 3d. Linkage to HIV medical care after HIV diagnosis during 2018 among males aged ≥ 13 years with infection attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—41 states and the District of Columbia

	Total No.	≤ 1 month				≤ 3 months			
		≥ 1 CD4 or VL tests		No CD4 or VL test		≥ 1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native									
13–24	22	17	74.4	6	25.6	20	87.4	3	12.6
25–34	31	23	75.0	8	25.0	26	84.7	5	15.3
35–44	17	13	77.4	4	22.6	13	77.4	4	22.6
45–54	13	11	84.1	2	15.9	11	84.1	2	15.9
≥ 55	6	5	83.6	1	16.4	6	100	0	0.0
Asian									
13–24	118	106	90.0	12	10.0	109	92.3	9	7.7
25–34	263	214	81.2	49	18.8	233	88.8	29	11.2
35–44	129	115	89.1	14	10.9	121	93.4	9	6.6
45–54	72	64	89.4	8	10.6	65	90.8	7	9.2
≥ 55	35	29	82.3	6	17.7	31	86.9	5	13.1
Black/African American									
13–24	2,974	2,258	75.9	716	24.1	2,546	85.6	428	14.4
25–34	3,562	2,719	76.3	844	23.7	3,036	85.2	526	14.8
35–44	1,115	877	78.6	239	21.4	954	85.5	161	14.5
45–54	629	467	74.4	161	25.6	516	82.1	112	17.9
≥ 55	357	283	79.4	74	20.6	312	87.4	45	12.6
Hispanic/Latino^a									
13–24	1,469	1,154	78.6	315	21.4	1,282	87.3	187	12.7
25–34	2,778	2,282	82.1	497	17.9	2,459	88.5	319	11.5
35–44	1,346	1,151	85.5	196	14.5	1,233	91.6	113	8.4
45–54	771	668	86.6	103	13.4	705	91.5	66	8.5
≥ 55	321	271	84.4	50	15.6	295	92.0	26	8.0
Native Hawaiian/other Pacific Islander									
13–24	11	10	91.7	1	8.3	11	100	0	0.0
25–34	21	18	85.5	3	14.5	19	90.3	2	9.7
35–44	10	8	81.6	2	18.4	9	89.8	1	10.2
45–54	2	2	100	0	0.0	2	100	0	0.0
≥ 55	5	5	100	0	0.0	5	100	0	0.0
White									
13–24	870	693	79.6	177	20.4	770	88.5	100	11.5
25–34	1,878	1,589	84.6	288	15.4	1,703	90.7	174	9.3
35–44	1,069	921	86.1	148	13.9	978	91.5	91	8.5
45–54	993	853	85.9	140	14.1	904	91.0	89	9.0
≥ 55	795	678	85.3	117	14.7	724	91.0	72	9.0
Multiple races									
13–24	165	134	81.2	31	18.8	145	87.9	20	12.1
25–34	221	179	81.0	42	19.0	191	86.4	30	13.6
35–44	94	81	86.6	13	13.4	89	94.9	5	5.1
45–54	49	43	86.2	7	13.8	44	89.9	5	10.1
≥ 55	27	25	92.7	2	7.3	26	96.4	1	3.6
Total	22,237	17,963	80.8	4,273	19.2	19,592	88.1	2,645	11.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Linkage to HIV medical care was measured by documentation of ≥ 1 CD4 or VL tests ≤ 1 month or ≤ 3 months after HIV diagnosis. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Hispanics/Latinos can be of any race.

Table 4a. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia

	Persons alive at year-end 2018		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
	Total No.	No.	%	No.	%	
Gender						
Male	662,766	501,387	75.7	382,649	57.7	
Female	202,366	152,802	75.5	117,389	58.0	
Transgender male-to-female ^b	8,625	7,217	83.7	5,706	66.2	
Transgender female-to-male ^b	326	284	87.1	198	60.7	
Additional gender identity ^c	147	126	85.7	107	72.8	
Age at year-end 2017 (yr)						
13–24	29,983	23,650	78.9	17,460	58.2	
25–34	137,595	105,551	76.7	75,918	55.2	
35–44	167,518	125,673	75.0	92,996	55.5	
45–54	256,520	195,953	76.4	150,328	58.6	
≥55	282,614	210,989	74.7	169,347	59.9	
Race/ethnicity						
American Indian/Alaska Native	2,234	1,674	74.9	1,244	55.7	
Asian ^d	13,096	9,819	75.0	7,681	58.7	
Black/African American	363,079	267,689	73.7	202,777	55.8	
Hispanic/Latino ^e	195,295	142,563	73.0	114,632	58.7	
Native Hawaiian/other Pacific Islander	749	559	74.6	396	52.9	
White	258,318	204,163	79.0	152,217	58.9	
Multiple races	40,800	35,284	86.5	27,053	66.3	
Transmission category^f						
Male-to-male sexual contact	495,978	383,589	77.3	290,821	58.6	
Injection drug use						
Male	54,647	35,011	64.1	27,664	50.6	
Female	39,746	29,224	73.5	22,672	57.0	
Male-to-male sexual contact and injection drug use	48,506	38,616	79.6	29,908	61.7	
Heterosexual contact ^g						
Male	65,946	46,861	71.1	36,617	55.5	
Female	156,762	119,185	76.0	91,284	58.2	
Other ^h						
Male	6,437	4,634	72.0	3,438	53.4	
Female	6,208	4,697	75.7	3,644	58.7	
Totalⁱ	874,230	661,816	75.7	506,049	57.9	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Performed ≥3 months apart during 2018.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

ⁱ Includes 659 persons of unknown race/ethnicity.

Table 4b. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by area of residence—41 states and the District of Columbia

	Persons alive at year-end 2018 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
		No.	%	No.	%
Alabama ^b	12,969	10,037	77.4	8,023	61.9
Alaska	684	607	88.7	402	58.8
California	126,348	95,975	76.0	73,102	57.9
Colorado	12,256	8,255	67.4	5,700	46.5
Delaware	3,226	2,651	82.2	1,936	60.0
District of Columbia	13,918	9,351	67.2	6,863	49.3
Florida	106,456	81,392	76.5	66,867	62.8
Georgia	52,147	38,471	73.8	29,862	57.3
Hawaii	2,366	1,863	78.7	1,376	58.2
Illinois	34,458	25,132	72.9	16,332	47.4
Indiana	10,998	8,452	76.9	6,034	54.9
Iowa	2,678	2,341	87.4	1,847	69.0
Louisiana	19,960	15,619	78.3	12,447	62.4
Maine	1,561	1,320	84.6	1,041	66.7
Maryland	32,163	23,521	73.1	17,526	54.5
Massachusetts	20,080	15,816	78.8	11,755	58.5
Michigan	15,294	12,864	84.1	9,410	61.5
Minnesota	8,278	6,188	74.8	3,891	47.0
Mississippi	9,012	6,558	72.8	4,955	55.0
Missouri	12,176	9,334	76.7	6,768	55.6
Montana	619	560	90.5	412	66.6
Nebraska	2,095	1,615	77.1	1,117	53.3
Nevada	9,723	7,218	74.2	5,297	54.5
New Hampshire	1,219	986	80.9	726	59.6
New Mexico	3,462	2,771	80.0	1,922	55.5
New York	124,567	91,901	73.8	76,971	61.8
North Carolina	30,665	23,868	77.8	17,108	55.8
North Dakota	417	353	84.7	258	61.9
Ohio	21,458	15,460	72.0	9,810	45.7
Oklahoma ^b	5,970	4,192	70.2	3,236	54.2
Oregon	6,826	6,058	88.7	4,106	60.2
Rhode Island	2,519	2,142	85.0	1,457	57.8
South Carolina ^b	16,706	13,231	79.2	10,680	63.9
South Dakota	581	483	83.1	309	53.2
Tennessee	16,601	13,354	80.4	10,118	60.9
Texas	87,350	66,453	76.1	50,854	58.2
Utah	2,811	2,133	75.9	1,441	51.3
Virginia	22,240	15,309	68.8	11,219	50.4
Washington	13,115	11,289	86.1	8,029	61.2
West Virginia	1,811	1,361	75.2	922	50.9
Wisconsin	6,114	5,051	82.6	3,697	60.5
Wyoming	333	281	84.4	223	67.0
Total	874,230	661,816	75.7	506,049	57.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Performed ≥3 months apart during 2018.

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 4c. Receipt of HIV medical care and viral suppression among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia

	Persons alive at year-end 2018		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL of <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
American Indian/Alaska Native								
Gender								
Male	1,589	1,185	74.6	888	55.9	1,034	65.1	
Female	618	468	75.7	343	55.5	375	60.7	
Transgender male-to-female ^c	23	17	73.9	12	52.2	16	69.6	
Transgender female-to-male ^c	4	4	100	1	25.0	4	100	
Additional gender identity ^d	0	0	0.0	0	0.0	0	0.0	
Age at year-end 2017 (yr)								
13–24	66	50	75.8	37	56.1	38	57.6	
25–34	420	325	77.4	233	55.5	266	63.3	
35–44	485	372	76.7	273	56.3	315	64.9	
45–54	668	491	73.5	350	52.4	426	63.8	
≥55	595	436	73.3	351	59.0	384	64.5	
Transmission category^e								
Male-to-male sexual contact	1,117	836	74.8	631	56.5	747	66.9	
Injection drug use								
Male	159	110	68.9	74	46.4	86	54.2	
Female	199	143	71.7	98	49.4	111	55.6	
Male-to-male sexual contact and injection drug use	201	151	75.2	119	59.4	124	61.6	
Heterosexual contact ^f								
Male	121	95	78.0	66	54.0	82	67.5	
Female	407	319	78.3	240	58.8	260	63.8	
Other ^g								
Male	14	11	78.1	11	76.6	11	78.1	
Female	16	11	67.1	6	39.9	8	53.2	
Total	2,234	1,674	74.9	1,244	55.7	1,429	64.0	
Asian^h								
Gender								
Male	10,708	8,078	75.4	6,328	59.1	7,519	70.2	
Female	2,231	1,615	72.4	1,253	56.2	1,487	66.7	
Transgender male-to-female ^c	148	117	79.1	93	62.8	106	71.6	
Transgender female-to-male ^c	5	5	100	3	60.0	5	100	
Additional gender identity ^d	4	4	100	4	100	4	100	
Age at year-end 2017 (yr)								
13–24	502	416	82.9	336	66.9	384	76.5	
25–34	2,448	1,890	77.2	1,431	58.5	1,743	71.2	
35–44	3,519	2,634	74.9	2,026	57.6	2,445	69.5	
45–54	3,830	2,887	75.4	2,248	58.7	2,689	70.2	
≥55	2,797	1,992	71.2	1,640	58.6	1,860	66.5	
Transmission category^e								
Male-to-male sexual contact	9,175	6,979	76.1	5,452	59.4	6,512	71.0	
Injection drug use								
Male	379	245	64.7	199	52.6	230	60.6	
Female	156	102	65.8	83	53.1	96	61.8	
Male-to-male sexual contact and injection drug use	362	281	77.7	217	60.1	251	69.5	
Heterosexual contact ^f								
Male	841	619	73.6	497	59.1	570	67.8	
Female	1,994	1,454	72.9	1,121	56.2	1,338	67.1	
Other ^g								
Male	102	73	72.1	58	56.7	64	63.2	
Female	88	65	73.4	53	60.4	59	67.2	
Total	13,096	9,819	75.0	7,681	58.7	9,121	69.6	

Table 4c. Receipt of HIV medical care and viral suppression among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia (cont)

	Persons alive at	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL of <200 copies/mL ^b	
	year-end 2018	No.	%	No.	%	No.	%
	Total No.						
Black/African American							
Gender							
Male	236,780	172,838	73.0	130,323	55.0	139,864	59.1
Female	122,008	91,282	74.8	69,700	57.1	74,928	61.4
Transgender male-to-female ^c	4,066	3,385	83.3	2,618	64.4	2,541	62.5
Transgender female-to-male ^c	162	136	84.0	93	57.4	106	65.4
Additional gender identity ^d	63	48	76.2	43	68.3	40	63.5
Age at year-end 2017 (yr)							
13–24	17,227	13,329	77.4	9,688	56.2	9,742	56.6
25–34	68,092	50,886	74.7	36,099	53.0	38,047	55.9
35–44	70,341	51,930	73.8	37,964	54.0	41,282	58.7
45–54	97,985	73,082	74.6	56,212	57.4	60,668	61.9
≥55	109,434	78,462	71.7	62,814	57.4	67,740	61.9
Transmission category^e							
Male-to-male sexual contact	155,319	116,789	75.2	86,598	55.8	94,170	60.6
Injection drug use							
Male	26,598	16,877	63.5	13,296	50.0	13,806	51.9
Female	19,735	14,312	72.5	11,133	56.4	11,685	59.2
Male-to-male sexual contact and injection drug use	13,713	10,529	76.8	8,228	60.0	8,286	60.4
Heterosexual contact ^f							
Male	42,276	30,002	71.0	23,325	55.2	24,711	58.5
Female	98,930	74,494	75.3	56,642	57.3	61,517	62.2
Other ^g							
Male	2,993	2,066	69.1	1,530	51.1	1,464	48.9
Female	3,515	2,620	74.5	2,025	57.6	1,840	52.3
Total	363,079	267,689	73.7	202,777	55.8	217,479	59.9
Hispanic/Latinoⁱ							
Gender							
Male	156,608	112,817	72.0	90,279	57.6	99,042	63.2
Female	35,757	27,311	76.4	22,361	62.5	23,461	65.6
Transgender male-to-female ^c	2,829	2,346	82.9	1,920	67.9	1,912	67.6
Transgender female-to-male ^c	58	49	84.5	36	62.1	38	65.5
Additional gender identity ^d	43	40	93.0	36	83.7	30	69.8
Age at year-end 2017 (yr)							
13–24	6,731	5,377	79.9	4,092	60.8	4,267	63.4
25–34	33,626	26,037	77.4	19,647	58.4	21,606	64.3
35–44	45,256	32,617	72.1	25,567	56.5	28,015	61.9
45–54	58,373	42,320	72.5	34,493	59.1	37,484	64.2
≥55	51,309	36,212	70.6	30,833	60.1	33,111	64.5
Transmission category^e							
Male-to-male sexual contact	119,475	88,832	74.4	70,651	59.1	78,744	65.9
Injection drug use							
Male	14,960	8,671	58.0	7,195	48.1	7,324	49.0
Female	7,472	5,555	74.3	4,594	61.5	4,634	62.0
Male-to-male sexual contact and injection drug use	10,961	8,354	76.2	6,742	61.5	6,854	62.5
Heterosexual contact ^f							
Male	12,732	8,364	65.7	6,888	54.1	7,349	57.7
Female	27,035	20,780	76.9	16,975	62.8	18,127	67.1
Other ^g							
Male	1,346	977	72.6	755	56.1	710	52.7
Female	1,313	1,031	78.5	831	63.3	740	56.4
Total	195,295	142,563	73.0	114,632	58.7	124,483	63.7

Table 4c. Receipt of HIV medical care and viral suppression among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia (cont)

	Persons alive at year-end 2018		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL of <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
Native Hawaiian/other Pacific Islander								
Gender								
Male	603	452	75.0	312	51.7	399	66.2	
Female	123	89	72.4	70	56.9	76	61.8	
Transgender male-to-female ^c	23	18	78.3	14	60.9	15	65.2	
Transgender female-to-male ^c	0	0	0.0	0	0.0	0	0.0	
Additional gender identity ^d	0	0	0.0	0	0.0	0	0.0	
Age at year-end 2017 (yr)								
13–24	21	15	71.4	9	42.9	13	61.9	
25–34	150	111	74.0	71	47.3	85	56.7	
35–44	191	137	71.7	90	47.1	120	62.8	
45–54	213	170	79.8	128	60.1	150	70.4	
≥55	174	126	72.4	98	56.3	122	70.1	
Transmission category^e								
Male-to-male sexual contact	538	396	73.7	277	51.5	353	65.7	
Injection drug use								
Male	20	14	70.4	6	29.6	12	59.2	
Female	20	13	64.0	11	56.3	12	61.9	
Male-to-male sexual contact and injection drug use	36	32	89.7	24	66.0	26	72.7	
Heterosexual contact ^f								
Male	30	25	83.5	19	62.3	20	66.7	
Female	103	76	74.2	59	57.2	64	61.9	
Other ^g								
Male	3	3	93.9	1	33.3	3	93.9	
Female	1	0	33.3	0	33.3	0	33.3	
Total	749	559	74.6	396	52.9	490	65.4	
Whites								
Gender								
Male	225,197	179,336	79.6	134,197	59.6	161,302	71.6	
Female	32,147	23,991	74.6	17,391	54.1	20,548	63.9	
Transgender male-to-female ^c	881	753	85.5	569	64.6	625	70.9	
Transgender female-to-male ^c	70	63	90.0	46	65.7	55	78.6	
Additional gender identity ^d	23	20	87.0	14	60.9	15	65.2	
Age at year-end 2017 (yr)								
13–24	3,967	3,219	81.1	2,352	59.3	2,727	68.7	
25–34	25,669	20,378	79.4	14,171	55.2	17,250	67.2	
35–44	39,402	30,992	78.7	21,901	55.6	26,607	67.5	
45–54	83,126	66,336	79.8	48,663	58.5	59,246	71.3	
≥55	106,154	83,238	78.4	65,130	61.4	76,715	72.3	
Transmission category^e								
Male-to-male sexual contact	186,899	149,805	80.2	112,203	60.0	136,216	72.9	
Injection drug use								
Male	10,411	7,288	70.0	5,450	52.4	6,142	59.0	
Female	9,778	7,051	72.1	5,104	52.2	5,797	59.3	
Male-to-male sexual contact and injection drug use	19,632	16,069	81.9	12,052	61.4	13,502	68.8	
Heterosexual contact ^f								
Male	7,582	5,772	76.1	4,247	56.0	5,058	66.7	
Female	21,528	16,344	75.9	11,851	55.0	14,242	66.2	
Other ^g								
Male	1,573	1,172	74.5	827	52.6	1,021	64.9	
Female	916	662	72.3	483	52.7	567	61.9	
Total	258,318	204,163	79.0	152,217	58.9	182,545	70.7	

Table 4c. Receipt of HIV medical care and viral suppression among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia (cont)

	Persons alive at year-end 2018		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL of <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
Multiple races								
Gender								
Male	30,811	26,630	86.4	20,282	65.8	22,534	73.1	
Female	9,293	8,032	86.4	6,262	67.4	6,586	70.9	
Transgender male-to-female ^c	655	581	88.7	480	73.3	428	65.3	
Transgender female-to-male ^c	27	27	100	19	70.4	25	92.6	
Additional gender identity ^d	14	14	100	10	71.4	12	85.7	
Age at year-end 2017 (yr)								
13–24	0	0	0.0	0	0.0	0	0.0	
25–34	0	0	0.0	0	0.0	0	0.0	
35–44	8,290	6,987	84.3	5,171	62.4	5,736	69.2	
45–54	12,106	10,647	87.9	8,220	67.9	9,058	74.8	
≥55	11,765	10,485	89.1	8,450	71.8	9,276	78.8	
Transmission category^e								
Male-to-male sexual contact	23,123	19,914	86.1	14,979	64.8	16,976	73.4	
Injection drug use								
Male	2,063	1,802	87.4	1,439	69.8	1,491	72.3	
Female	2,327	2,045	87.9	1,647	70.8	1,661	71.4	
Male-to-male sexual contact and injection drug use	3,560	3,197	89.8	2,523	70.9	2,577	72.4	
Heterosexual contact ^f								
Male	2,339	1,981	84.7	1,573	67.3	1,675	71.6	
Female	6,649	5,708	85.9	4,389	66.0	4,727	71.1	
Other ^g								
Male	393	329	83.6	256	65.2	252	64.1	
Female	346	308	88.9	245	70.8	225	64.9	
Total	40,800	35,284	86.5	27,053	66.3	29,585	72.5	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Performed ≥3 months apart during 2018.

^b VL test results are from the most recent test during 2018.

^c “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^d Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data are based on sex at birth and include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^h Includes Asian/Pacific Islander legacy cases (see Technical Notes).

ⁱ Hispanics/Latinos can be of any race.

Table 4d. Receipt of HIV medical care and viral suppression among males aged ≥13 years with infection attributed to male-to-male sexual contact, by race/ethnicity and age group—41 states and the District of Columbia

	Males alive at year-end 2018		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL of <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
American Indian/Alaska Native								
13–24	46	35	77.5	25	54.5	28	61.3	
25–34	276	221	80.4	157	57.1	187	67.7	
35–44	233	176	75.5	132	56.8	159	68.1	
45–54	323	232	71.8	176	54.3	215	66.5	
≥55	239	171	71.4	140	58.8	159	66.5	
Asian^c								
13–24	392	320	81.5	259	66.0	299	76.2	
25–34	1,970	1,524	77.4	1,145	58.1	1,409	71.5	
35–44	2,367	1,780	75.2	1,349	57.0	1,664	70.3	
45–54	2,680	2,059	76.8	1,618	60.4	1,925	71.9	
≥55	1,766	1,296	73.4	1,081	61.2	1,216	68.8	
Black/African American								
13–24	10,957	8,616	78.6	6,181	56.4	6,456	58.9	
25–34	46,266	35,365	76.4	25,111	54.3	26,796	57.9	
35–44	31,066	23,525	75.7	17,064	54.9	18,913	60.9	
45–54	36,434	27,226	74.7	20,805	57.1	22,870	62.8	
≥55	30,595	22,058	72.1	17,437	57.0	19,135	62.5	
Hispanic/Latino^d								
13–24	4,717	3,812	80.8	2,853	60.5	3,148	66.7	
25–34	25,755	20,221	78.5	15,275	59.3	17,144	66.6	
35–44	29,913	21,813	72.9	17,060	57.0	19,145	64.0	
45–54	35,099	25,656	73.1	20,813	59.3	23,210	66.1	
≥55	23,992	17,331	72.2	14,650	61.1	16,096	67.1	
Native Hawaiian/other Pacific Islander								
13–24	14	10	71.9	8	57.6	9	64.7	
25–34	120	88	72.7	54	44.5	68	56.4	
35–44	142	103	72.1	65	45.5	93	65.1	
45–54	147	114	77.6	87	58.9	105	71.5	
≥55	114	82	71.8	64	56.2	79	69.2	
Whites								
13–24	2,586	2,143	82.9	1,580	61.1	1,887	73.0	
25–34	18,307	14,673	80.1	10,210	55.8	12,846	70.2	
35–44	26,718	21,277	79.6	15,096	56.5	18,852	70.6	
45–54	60,080	48,522	80.8	35,589	59.2	43,956	73.2	
≥55	79,208	63,190	79.8	49,728	62.8	58,675	74.1	
Multiple races								
13–24	875	749	85.7	559	63.9	561	64.2	
25–34	5,187	4,287	82.6	3,070	59.2	3,408	65.7	
35–44	4,864	4,105	84.4	2,986	61.4	3,447	70.9	
45–54	6,633	5,825	87.8	4,426	66.7	5,107	77.0	
≥55	5,565	4,948	88.9	3,938	70.8	4,454	80.0	
Total	495,978	383,589	77.3	290,821	58.6	333,758	67.3	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address).

Data for the year 2018 are preliminary and based on death data received by CDC through December 2019.

Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total.

Data presented based on sex at birth and include transgender persons.

Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Performed ≥3 months apart during 2018.

^b VL test results are from the most recent test during 2018.

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

^d Hispanics/Latinos can be of any race.

Table 5a. HIV viral suppression during 2018 among persons aged ≥13 years with HIV infection diagnosed by year-end 2017 and alive at year-end 2018, by selected characteristics—41 states and the District of Columbia

	Persons alive at year-end 2018		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL of <200 copies/mL			
							Among persons alive at year-end 2018		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	No.	%	%	%
Gender										
Male	662,766	75.8	501,387	75.7	482,605	72.8	431,743	65.1	86.1	89.5
Female	202,366	23.1	152,802	75.5	147,633	73.0	127,475	63.0	83.4	86.3
Transgender male-to-female ^b	8,625	1.0	7,217	83.7	7,042	81.6	5,643	65.4	78.2	80.1
Transgender female-to-male ^b	326	0.0	284	87.1	267	81.9	233	71.5	82.0	87.3
Additional gender identity ^c	147	0.0	126	85.7	125	85.0	101	68.7	80.2	80.8
Age at year-end 2017 (yr)										
13–24	29,983	3.4	23,650	78.9	22,998	76.7	18,084	60.3	76.5	78.6
25–34	137,595	15.7	105,551	76.7	102,066	74.2	83,601	60.8	79.2	81.9
35–44	167,518	19.2	125,673	75.0	121,176	72.3	104,524	62.4	83.2	86.3
45–54	256,520	29.3	195,953	76.4	188,957	73.7	169,741	66.2	86.6	89.8
≥55	282,614	32.3	210,989	74.7	202,475	71.6	189,245	67.0	89.7	93.5
Race/ethnicity										
American Indian/Alaska Native	2,234	0.3	1,674	74.9	1,621	72.6	1,429	64.0	85.4	88.2
Asian ^d	13,096	1.5	9,819	75.0	9,531	72.8	9,121	69.6	92.9	95.7
Black/African American	363,079	41.5	267,689	73.7	257,226	70.8	217,479	59.9	81.2	84.5
Hispanic/Latino ^e	195,295	22.3	142,563	73.0	138,988	71.2	124,483	63.7	87.3	89.6
Native Hawaiian/other Pacific Islander	749	0.1	559	74.6	544	72.6	490	65.4	87.7	90.1
White	258,318	29.5	204,163	79.0	195,565	75.7	182,545	70.7	89.4	93.3
Multiple races	40,800	4.7	35,284	86.5	34,132	83.7	29,585	72.5	83.8	86.7
Transmission category^f										
Male-to-male sexual contact	495,978	56.7	383,589	77.3	369,666	74.5	333,757	67.3	87.0	90.3
Injection drug use										
Male	54,647	6.3	35,011	64.1	33,450	61.2	29,095	53.2	83.1	87.0
Female	39,746	4.5	29,224	73.5	28,247	71.1	24,001	60.4	82.1	85.0
Male-to-male sexual contact and injection drug use	48,506	5.5	38,616	79.6	37,110	76.5	31,622	65.2	81.9	85.2
Heterosexual contact ^g										
Male	65,946	7.5	46,861	71.1	45,041	68.3	39,468	59.8	84.2	87.6
Female	156,762	17.9	119,185	76.0	115,091	73.4	100,284	64.0	84.1	87.1
Other ^h										
Male	6,437	0.7	4,634	72.0	4,485	69.7	3,526	54.8	76.1	78.6
Female	6,208	0.7	4,697	75.7	4,582	73.8	3,440	55.4	73.2	75.1
Totalⁱ	874,230	100	661,816	75.7	637,672	72.9	565,195	64.7	85.4	88.6

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2018. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Represents percentage of the total number for the column.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

ⁱ Includes 659 persons of unknown race/ethnicity.

Table 5b. HIV viral suppression during 2018 among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by area of residence—41 states and the District of Columbia

	Persons alive at year-end 2018		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL of <200 copies/mL			
							Among persons alive at year-end 2018		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	No.	%	%	%
Alabama ^b	12,969	1.5	10,037	77.4	9,778	75.4	8,550	65.9	85.2	87.4
Alaska	684	0.1	607	88.7	591	86.4	530	77.5	87.3	89.7
California	126,348	14.5	95,975	76.0	92,661	73.3	84,492	66.9	88.0	91.2
Colorado	12,256	1.4	8,255	67.4	8,008	65.3	7,347	59.9	89.0	91.7
Delaware	3,226	0.4	2,651	82.2	2,595	80.4	2,343	72.6	88.4	90.3
District of Columbia	13,918	1.6	9,351	67.2	9,035	64.9	7,778	55.9	83.2	86.1
Florida	106,456	12.2	81,392	76.5	79,101	74.3	70,002	65.8	86.0	88.5
Georgia	52,147	6.0	38,471	73.8	36,604	70.2	31,083	59.6	80.8	84.9
Hawaii	2,366	0.3	1,863	78.7	1,839	77.7	1,716	72.5	92.1	93.3
Illinois	34,458	3.9	25,132	72.9	22,532	65.4	19,710	57.2	78.4	87.5
Indiana	10,998	1.3	8,452	76.9	7,858	71.4	6,842	62.2	81.0	87.1
Iowa	2,678	0.3	2,341	87.4	2,320	86.6	2,156	80.5	92.1	92.9
Louisiana	19,960	2.3	15,619	78.3	15,416	77.2	13,345	66.9	85.4	86.6
Maine	1,561	0.2	1,320	84.6	1,301	83.3	1,228	78.7	93.0	94.4
Maryland	32,163	3.7	23,521	73.1	22,981	71.5	20,195	62.8	85.9	87.9
Massachusetts	20,080	2.3	15,816	78.8	15,255	76.0	14,196	70.7	89.8	93.1
Michigan	15,294	1.7	12,864	84.1	12,547	82.0	11,188	73.2	87.0	89.2
Minnesota	8,278	0.9	6,188	74.8	5,943	71.8	5,498	66.4	88.8	92.5
Mississippi	9,012	1.0	6,558	72.8	5,529	61.4	4,536	50.3	69.2	82.0
Missouri	12,176	1.4	9,334	76.7	8,771	72.0	7,746	63.6	83.0	88.3
Montana	619	0.1	560	90.5	545	88.0	507	81.9	90.5	93.0
Nebraska	2,095	0.2	1,615	77.1	1,513	72.2	1,383	66.0	85.6	91.4
Nevada	9,723	1.1	7,218	74.2	6,887	70.8	6,115	62.9	84.7	88.8
New Hampshire	1,219	0.1	986	80.9	962	78.9	902	74.0	91.5	93.8
New Mexico	3,462	0.4	2,771	80.0	2,701	78.0	2,467	71.3	89.0	91.3
New York	124,567	14.2	91,901	73.8	90,973	73.0	80,729	64.8	87.8	88.7
North Carolina	30,665	3.5	23,868	77.8	23,229	75.8	20,516	66.9	86.0	88.3
North Dakota	417	0.0	353	84.7	348	83.5	326	78.2	92.4	93.7
Ohio	21,458	2.5	15,460	72.0	14,300	66.6	12,625	58.8	81.7	88.3
Oklahoma ^b	5,970	0.7	4,192	70.2	4,095	68.6	3,528	59.1	84.2	86.2
Oregon	6,826	0.8	6,058	88.7	5,790	84.8	5,397	79.1	89.1	93.2
Rhode Island	2,519	0.3	2,142	85.0	2,120	84.2	1,988	78.9	92.8	93.8
South Carolina ^b	16,706	1.9	13,231	79.2	12,890	77.2	11,401	68.2	86.2	88.4
South Dakota	581	0.1	483	83.1	396	68.2	338	58.2	70.0	85.4
Tennessee	16,601	1.9	13,354	80.4	12,411	74.8	10,580	63.7	79.2	85.2
Texas	87,350	10.0	66,453	76.1	63,279	72.4	54,218	62.1	81.6	85.7
Utah	2,811	0.3	2,133	75.9	2,086	74.2	1,910	67.9	89.5	91.6
Virginia	22,240	2.5	15,309	68.8	14,853	66.8	13,454	60.5	87.9	90.6
Washington	13,115	1.5	11,289	86.1	11,131	84.9	10,413	79.4	92.2	93.5
West Virginia	1,811	0.2	1,361	75.2	1,279	70.6	1,136	62.7	83.5	88.8
Wisconsin	6,114	0.7	5,051	82.6	4,942	80.8	4,525	74.0	89.6	91.6
Wyoming	333	0.0	281	84.4	277	83.2	256	76.9	91.1	92.4
Total	874,230	100	661,816	75.7	637,672	72.9	565,195	64.7	85.4	88.6

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2018. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a Represents percentage of the total number for the column.

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 5c. HIV viral suppression within 6 months of diagnosis of HIV infection among persons aged ≥ 13 years with infection diagnosed during 2018, by selected characteristics—41 states and the District of Columbia

	Total diagnoses	VL <200 copies/mL	
	No.	No.	%
Gender			
Male	26,657	17,836	66.9
Female	6,299	4,183	66.4
Transgender male-to-female ^a	492	324	65.9
Transgender female-to-male ^a	42	29	69.0
Additional gender identity ^b	10	10	100
Age at diagnosis (yr)			
13–24	6,997	4,540	64.9
25–34	11,998	8,019	66.8
35–44	6,452	4,442	68.8
45–54	4,719	3,171	67.2
≥55	3,334	2,210	66.3
Race/ethnicity			
American Indian/Alaska Native	140	74	52.9
Asian ^c	786	603	76.7
Black/African American	14,558	9,158	62.9
Hispanic/Latino ^d	8,776	6,230	71.0
Native Hawaiian/other Pacific Islander	57	38	66.7
White	8,323	5,683	68.3
Multiple races	860	596	69.3
Transmission category^e			
Male-to-male sexual contact	22,237	15,178	68.3
Injection drug use			
Male	1,150	601	52.2
Female	898	485	54.0
Male-to-male sexual contact and injection drug use	1,210	782	64.6
Heterosexual contact ^f			
Male	2,533	1,591	62.8
Female	5,411	3,704	68.5
Total^g	33,500	22,382	66.8

Abbreviations: VL, viral load (copies/mL); CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of diagnosis of HIV infection during 2018. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

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

^d Hispanics/Latinos can be of any race.

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table 5d. HIV viral suppression within 6 months of diagnosis of HIV infection among persons aged ≥ 13 years with infection diagnosed during 2018, by selected characteristics—41 states and the District of Columbia

	Total diagnoses	VL <200 copies/mL	
	No.	No.	%
Alabama	607	410	67.5
Alaska	23	20	87.0
California	4,712	3,114	66.1
Colorado	399	281	70.4
Delaware	92	59	64.1
District of Columbia	275	174	63.3
Florida	4,573	3,195	69.9
Georgia	2,501	1,511	60.4
Hawaii	70	51	72.9
Illinois	1,361	885	65.0
Indiana	512	286	55.9
Iowa	115	97	84.3
Louisiana	972	648	66.7
Maine	30	24	80.0
Maryland	996	724	72.7
Massachusetts	650	479	73.7
Michigan	716	508	70.9
Minnesota	288	207	71.9
Mississippi	477	256	53.7
Missouri	447	303	67.8
Montana	23	18	78.3
Nebraska	79	55	69.6
Nevada	503	363	72.2
New Hampshire	38	29	76.3
New Mexico	122	91	74.6
New York	2,456	1,897	77.2
North Carolina	1,187	832	70.1
North Dakota	36	29	80.6
Ohio	977	595	60.9
Oklahoma	280	140	50.0
Oregon	229	164	71.6
Rhode Island	75	58	77.3
South Carolina	715	535	74.8
South Dakota	29	16	55.2
Tennessee	762	463	60.8
Texas	4,388	2,541	57.9
Utah	119	94	79.0
Virginia	858	602	70.2
Washington	504	401	79.6
West Virginia	86	49	57.0
Wisconsin	206	169	82.0
Wyoming	12	9	75.0
Total	33,500	22,382	66.8

Abbreviations: VL, viral load (copies/mL); CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of diagnosis of HIV infection during 2018. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Vermont, and Puerto Rico.

Table 6a. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018 among persons aged ≥ 16 years, by selected characteristics—United States

	Persons prescribed PrEP ^a	Persons with PrEP indications ^b	PrEP coverage ^c
	No.	No.	%
Sex at birth			
Male	204,812	986,476	20.8
Female	14,770	225,301	6.6
Age (yr)			
16–24	28,860	253,709	11.4
25–34	91,077	423,548	21.5
35–44	51,083	233,252	21.9
45–54	31,300	180,400	17.4
≥55	17,371	120,868	14.4
Race/ethnicity^d			
Asian/Other	9,437	n/a	n/a
Black/African American	28,243	479,443	5.9
Hispanic/Latino	33,503	307,689	10.9
White	147,454	350,238	42.1
Total	219,691	1,211,777	18.1

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available.

^a Estimated by using 2018 data from IQVIA pharmacy database.

^b Estimated by using 2017 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, and American Community Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d Race/ethnicity data were only available for 35% of persons prescribed PrEP in 2018. Number prescribed PrEP and PrEP coverage for race/ethnicity reported in the table were adjusted by applying the distribution of records with known race/ethnicity to records with missing race/ethnicity.

Table 6b. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018 among persons aged ≥ 16 years, by area of residence—United States and Puerto Rico

Area of residence	Persons prescribed PrEP ^a	Persons with PrEP indications ^b	PrEP coverage ^c
	No.	No.	%
Alabama	1,513	11,421	13.2
Alaska	189	2,288	8.3
Arizona	3,521	26,829	13.1
Arkansas	611	4,878	12.5
California	36,272	165,645	21.9
Colorado	3,428	25,695	13.3
Connecticut	2,292	10,741	21.3
Delaware	402	4,600	8.7
District of Columbia	5,014	13,752	36.5
Florida	13,623	122,502	11.1
Georgia	6,154	40,504	15.2
Hawaii	668	5,490	12.2
Idaho	377	3,761	10.0
Illinois	14,438	53,854	26.8
Indiana	2,170	21,441	10.1
Iowa	1,184	4,209	28.1
Kansas	759	5,449	13.9
Kentucky	1,231	13,342	9.2
Louisiana	3,468	15,231	22.8
Maine	390	3,271	11.9
Maryland	4,008	27,978	14.3
Massachusetts	8,195	24,507	33.4
Michigan	3,453	28,239	12.2
Minnesota	3,542	23,417	15.1
Mississippi	654	5,072	12.9
Missouri	2,781	19,545	14.2
Montana	173	2,629	6.6
Nebraska	487	2,597	18.8
Nevada	1,477	10,904	13.5
New Hampshire	497	2,372	21.0
New Jersey	4,652	27,723	16.8
New Mexico	790	6,598	12.0
New York	30,572	74,419	41.1
North Carolina	3,682	33,179	11.1
North Dakota	166	1,119	14.8
Ohio	4,715	40,578	11.6
Oklahoma	827	10,820	7.6
Oregon	2,753	20,255	13.6
Pennsylvania	8,402	36,617	22.9
Rhode Island	842	4,449	18.9
South Carolina	1,198	10,249	11.7
South Dakota	106	934	11.3
Tennessee	2,602	22,898	11.4
Texas	17,628	123,538	14.3
Utah	1,496	6,831	21.9
Vermont	264	1,491	17.7
Virginia	3,177	33,424	9.5
Washington	8,798	35,255	25.0
West Virginia	358	3,706	9.7
Wisconsin	2,017	14,121	14.3
Wyoming	70	1,411	5.0
Total^d	219,689	1,211,777	18.1
Puerto Rico	225	n/a ^e	n/a

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available.

^a Estimated using 2018 data from IQVIA pharmacy database.

^b Estimated using 2017 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, and American Community Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d Total number prescribed PrEP included persons from 50 states and District of Columbia and 1,605 persons with unknown ZIP codes. The total number is 2 fewer than the total number reported in Table 6a due to geography designation and rounding.

^e Population-based data not available to make the estimate.

Table 7a. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and selected characteristics, 2014–2018—United States

	2014			2015			2016			2017			2018		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000
		population	PLWDH ^a		population	PLWDH ^a		population	PLWDH ^a		population	PLWDH ^a		population	PLWDH ^a
Gender															
Male	11,882	—	16.8	11,855	—	16.3	12,254	—	16.4	12,256	—	16.0	11,595	—	14.8
Female	4,176	—	18.3	3,891	—	16.8	4,018	—	17.1	3,994	—	16.7	3,774	—	15.5
Transgender male-to-female ^b	84	—	10.3	108	—	12.5	121	—	13.2	103	—	10.7	110	—	10.9
Transgender female-to-male ^b	3	—	10.6	5	—	16.0	2	—	6.1	4	—	11.2	3	—	7.4
Additional gender identity ^c	0	—	0.0	1	—	7.8	0	—	0.0	1	—	6.4	1	—	5.7
Age at death (yr)															
13–24	186	0.4	3.9	161	0.3	3.4	167	0.3	3.7	151	0.3	3.5	126	0.2	3.0
25–34	996	2.3	7.0	990	2.2	6.7	1,106	2.5	7.1	1,048	2.3	6.5	968	2.1	5.8
35–44	2,244	5.6	10.9	2,043	5.0	10.2	1,966	4.9	10.0	1,838	4.5	9.4	1,679	4.1	8.6
45–54	5,158	11.9	16.3	4,946	11.5	15.6	4,654	10.9	14.8	4,470	10.6	14.4	4,006	9.6	13.4
≥55	7,561	8.8	32.8	7,720	8.7	30.4	8,502	9.4	30.4	8,851	9.5	28.9	8,704	9.2	26.0
Race/ethnicity															
American Indian/Alaska Native	61	3.2	23.7	62	3.2	23.0	46	2.4	16.1	44	2.2	14.5	43	2.2	13.6
Asian ^d	60	0.4	5.3	81	0.6	6.6	101	0.7	7.6	88	0.6	6.2	79	0.5	5.2
Black/African American	7,338	22.7	18.9	7,129	21.8	17.9	7,243	21.9	17.7	7,197	21.6	17.2	6,678	19.8	15.6
Hispanic/Latino ^e	2,657	6.3	13.1	2,516	5.9	12.0	2,631	6.0	12.1	2,694	6.0	11.9	2,712	5.9	11.6
Native Hawaiian/other Pacific Islander	9	2.0	12.9	7	1.6	9.2	14	3.0	17.6	9	1.9	10.8	12	2.5	13.5
White	5,022	2.9	17.4	5,034	2.9	17.1	5,324	3.1	17.8	5,255	3.1	17.3	4,909	2.9	15.9
Multiple races	994	24.2	21.0	1,025	24.1	21.4	1,033	23.5	21.4	1,069	23.5	22.1	1,050	22.3	21.8
Transmission category^f															
Male adult or adolescent^g															
Male-to-male sexual contact	6,536	—	13.1	6,588	—	12.6	6,913	—	12.8	7,010	—	12.5	6,578	—	11.4
Injection drug use	2413	—	32.4	2283	—	31.1	2,284	—	31.6	2,168	—	30.3	2,114	—	29.8
Male-to-male sexual contact and injection drug use	1,344	—	23.6	1,398	—	24.5	1,390	—	24.3	1,373	—	24.0	1,378	—	24.1
Heterosexual contact ^h	1,581	—	21.1	1,588	—	20.7	1,686	—	21.5	1,705	—	21.4	1,528	—	18.9
Other ⁱ	92	—	12.6	107	—	14.4	102	—	13.6	104	—	13.7	106	—	13.9
Subtotal	11,966	9.2	16.8	11,964	9.1	16.3	12,375	9.4	16.4	12,360	9.3	15.9	11,705	8.7	14.7
Female adult or adolescent^g															
Injection drug use	1,460	—	28.4	1,351	—	26.5	1,384	—	27.3	1,373	—	27.2	1,260	—	25.1
Heterosexual contact ^h	2,659	—	15.6	2,472	—	14.2	2,563	—	14.4	2,553	—	14.0	2,457	—	13.2
Other ⁱ	60	—	9.1	73	—	10.8	73	—	10.6	72	—	10.1	61	—	8.4
Subtotal	4,179	3.1	18.3	3,896	2.8	16.8	4,020	2.9	17.0	3,998	2.9	16.7	3,778	2.7	15.5
Region of residence															
Northeast	3,732	7.8	16.3	3,587	7.5	15.6	3,705	7.8	15.8	3,689	7.7	15.6	3,449	7.2	14.4
Midwest	1,845	3.3	16.5	1,808	3.2	15.8	1,846	3.2	15.7	1,901	3.3	15.7	1,930	3.4	15.5
South	7,983	8.0	19.0	7,860	7.8	18.1	8,087	7.9	18.2	8,040	7.8	17.6	7,383	7.1	15.7
West	2,585	4.2	14.2	2,605	4.1	13.9	2,757	4.3	14.2	2,728	4.2	13.6	2,721	4.2	13.2
Total^j	16,145	6.1	17.1	15,860	5.9	16.4	16,395	6.1	16.5	16,358	6.0	16.1	15,483	5.6	14.9

Abbreviations: PLWDH, persons living with diagnosed HIV infection; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWDH at the end of [year X–1]) + (No. new diagnoses during year X).

^b "Transgender male-to-female" includes individuals who were assigned "male" sex at birth but have ever identified as "female" gender. "Transgender female-to-male" includes individuals who were assigned "female" sex at birth but have ever identified as "male" gender.

^c Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total.

^g Data presented based on sex at birth and include transgender persons.

^h Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

ⁱ Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Includes persons of unknown race/ethnicity.

Table 7b. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and selected characteristics, 2014–2018—United States and 6 dependent areas

	2014			2015			2016			2017			2018		
	No.	Rate per 100,000 population	Rate per 1,000 PLWDH ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWDH ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWDH ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWDH ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWDH ^a
Gender															
Male	12,223	—	17.0	12,149	—	16.5	12,574	—	16.6	12,554	—	16.1	11,865	—	14.9
Female	4,308	—	18.5	3,997	—	16.9	4,113	—	17.1	4,102	—	16.8	3,841	—	15.5
Transgender male-to-female ^b	84	—	10.3	108	—	12.5	121	—	13.2	104	—	10.8	110	—	10.9
Transgender female-to-male ^b	3	—	10.6	5	—	16.0	2	—	6.1	4	—	11.1	3	—	7.4
Additional gender identity ^c	0	—	0.0	1	—	7.8	0	—	0.0	1	—	6.4	1	—	5.7
Age at death (yr)															
13–24	188	0.4	3.9	163	0.3	3.4	172	0.3	3.8	153	0.3	3.5	129	0.2	3.1
25–34	1,019	2.3	7.1	1,016	2.3	6.8	1,121	2.5	7.1	1,069	2.3	6.5	987	2.1	5.8
35–44	2,302	5.6	11.0	2,098	5.1	10.3	2,029	5.0	10.2	1,888	4.6	9.5	1,721	4.1	8.7
45–54	5,319	12.1	16.5	5,092	11.7	15.8	4,776	11.0	14.9	4,597	10.8	14.6	4,089	9.7	13.4
≥55	7,790	8.9	33.1	7,891	8.8	30.4	8,712	9.5	30.5	9,058	9.6	28.9	8,894	9.3	26.0
Race/ethnicity															
American Indian/Alaska Native	61	—	23.7	62	—	23.0	46	—	16.1	44	—	14.5	43	—	13.6
Asian ^d	62	—	5.4	82	—	6.6	101	—	7.6	88	—	6.2	79	—	5.2
Black/African American	7,347	—	18.9	7,135	—	17.9	7,252	—	17.7	7,202	—	17.2	6,678	—	15.6
Hispanic/Latino ^e	3,119	—	14.2	2,907	—	12.8	3,033	—	12.9	3,095	—	12.8	3,044	—	12.2
Native Hawaiian/other Pacific Islander	9	—	12.4	8	—	10.2	16	—	19.4	9	—	10.4	15	—	16.2
White	5,022	—	17.4	5,034	—	17.1	5,325	—	17.8	5,256	—	17.3	4,910	—	15.9
Multiple races	994	—	21.0	1,026	—	21.4	1,034	—	21.4	1,069	—	22.1	1,051	—	21.8
Transmission category^f															
Male adult or adolescent^g															
Male-to-male sexual contact	6,621	—	13.1	6,664	—	12.7	6,989	—	12.8	7,081	—	12.5	6,652	—	11.4
Injection drug use	2,558	—	32.6	2,415	—	31.3	2,413	—	31.7	2,299	—	30.6	2,224	—	29.9
Male-to-male sexual contact and injection drug use	1,371	—	23.7	1,424	—	24.6	1,421	—	24.5	1,397	—	24.1	1,397	—	24.1
Heterosexual contact ^h	1,663	—	21.5	1,647	—	20.8	1,762	—	21.8	1,777	—	21.6	1,592	—	19.1
Other ⁱ	94	—	12.6	109	—	14.4	108	—	14.2	105	—	13.6	110	—	14.1
Subtotal	12,307	9.4	17.0	12,258	9.2	16.4	12,695	9.5	16.5	12,659	9.4	16.1	11,975	8.8	14.8
Female adult or adolescent^g															
Injection drug use	1,502	—	28.6	1,375	—	26.4	1,419	—	27.4	1,408	—	27.4	1,284	—	25.1
Heterosexual contact ^h	2,748	—	15.8	2,554	—	14.3	2,620	—	14.4	2,625	—	14.1	2,498	—	13.1
Other ⁱ	61	—	9.0	74	—	10.8	76	—	10.9	73	—	10.1	63	—	8.5
Subtotal	4,311	3.1	18.5	4,002	2.9	16.9	4,115	2.9	17.1	4,106	2.9	16.8	3,845	2.7	15.5
Region of residence															
Northeast	3,732	7.8	16.3	3,587	7.5	15.6	3,705	7.8	15.8	3,689	7.7	15.6	3,449	7.2	14.4
Midwest	1,845	3.3	16.5	1,808	3.2	15.8	1,846	3.2	15.7	1,901	3.3	15.7	1,930	3.4	15.5
South	7,983	8.0	19.0	7,860	7.8	18.1	8,087	7.9	18.2	8,040	7.8	17.6	7,383	7.1	15.7
West	2,585	4.2	14.2	2,605	4.1	13.9	2,757	4.3	14.2	2,728	4.2	13.6	2,721	4.2	13.2
U.S. dependent areas	473	14.2	27.3	400	12.2	23.1	415	12.8	24.0	407	12.7	23.9	337	10.8	20.0
Total^j	16,618	6.2	17.3	16,260	6.0	16.5	16,810	6.1	16.7	16,765	6.1	16.2	15,820	5.7	15.0

Abbreviations: PLWDH, persons living with diagnosed HIV infection; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWDH at the end of [year X–1]) + (No. new diagnoses during year X).

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total.

^g Data presented based on sex at birth and include transgender persons.

^h Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

ⁱ Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Includes persons of unknown race/ethnicity.

Table 7c. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and area of residence, 2014–2018—United States and 6 dependent areas

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWDH ^a	Age-adjusted rate per 1,000 PLWDH
			2014		
Alabama	278	6.8	6.8	22.3	22.0
Alaska	12	2.0	2.0	19.0	17.7
Arizona	221	4.0	4.0	15.3	14.0
Arkansas	118	4.8	4.9	23.1	21.7
California	1,635	5.1	5.0	13.7	12.1
Colorado	143	3.2	3.1	13.2	12.0
Connecticut	184	6.0	5.3	18.1	14.4
Delaware	88	11.2	10.2	27.9	23.7
District of Columbia	214	37.4	40.6	14.8	13.4
Florida	1,973	11.6	10.9	19.3	16.9
Georgia	910	11.0	10.8	19.0	19.2
Hawaii	44	3.7	3.6	17.7	11.9
Idaho	20	1.5	1.5	20.0	24.1
Illinois	523	4.9	4.6	15.5	15.2
Indiana	181	3.3	3.3	17.8	17.2
Iowa	54	2.1	2.0	22.7	19.8
Kansas	46	1.9	2.0	16.0	15.1
Kentucky	119	3.2	3.2	18.1	16.5
Louisiana	421	11.0	11.1	22.3	22.6
Maine	19	1.7	1.2	13.5	10.2
Maryland	590	11.8	11.0	18.8	16.3
Massachusetts	263	4.5	4.2	13.4	11.3
Michigan	288	3.4	3.3	19.4	18.3
Minnesota	97	2.1	2.0	12.9	12.9
Mississippi	237	9.6	9.6	26.4	26.8
Missouri	171	3.4	3.4	14.8	13.4
Montana	10	1.2	1.1	18.1	16.7
Nebraska	29	1.9	1.9	14.7	13.9
Nevada	130	5.5	5.6	16.1	15.0
New Hampshire	13	1.1	1.1	10.8	7.9
New Jersey	661	8.9	7.9	18.9	15.7
New Mexico	67	3.9	3.9	21.5	18.5
New York	1,909	11.5	10.6	15.3	12.7
North Carolina	545	6.6	6.3	19.0	17.6
North Dakota	7	1.1	1.2	23.4	27.2
Ohio	348	3.6	3.5	17.5	16.5
Oklahoma	138	4.3	4.4	24.5	22.5
Oregon	102	3.0	2.9	16.3	14.1
Pennsylvania	642	5.9	5.5	19.1	16.2
Rhode Island	38	4.2	3.7	16.3	13.7
South Carolina	331	8.2	7.8	20.7	19.8
South Dakota	10	1.4	1.5	19.6	12.4
Tennessee	331	6.0	5.9	20.5	20.8
Texas	1,345	6.2	6.3	16.9	16.7
Utah	22	1.0	1.1	8.6	6.8
Vermont	3	0.6	0.4	4.7	3.2
Virginia	307	4.4	4.1	14.6	13.3
Washington	174	3.0	2.8	14.4	12.8
West Virginia	38	2.4	2.3	21.5	21.5
Wisconsin	91	1.9	1.8	15.6	14.8
Wyoming	5	1.0	1.1	19.1	13.9
Subtotal	16,145	6.1	5.8	17.1	15.5
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	2	1.6	1.9	24.4	32.8
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	460	15.3	14.6	27.6	22.5
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	11	12.5	10.9	19.0	15.9
Subtotal	473	14.2	13.6	27.3	22.2
Total	16,618	6.2	5.9	17.3	15.6

Table 7c. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWDH ^a	Age-adjusted rate per 1,000 PLWDH
			2015		
Alabama	275	6.8	6.7	22.2	21.1
Alaska	12	2.0	2.1	18.2	17.5
Arizona	214	3.8	3.7	14.2	12.6
Arkansas	109	4.4	4.5	20.8	18.8
California	1,700	5.2	5.1	13.8	11.8
Colorado	124	2.7	2.7	11.0	8.3
Connecticut	182	5.9	5.2	17.6	13.8
Delaware	70	8.8	7.8	22.1	16.8
District of Columbia	254	43.6	47.4	17.5	15.2
Florida	2,085	12.0	11.1	19.7	17.1
Georgia	824	9.8	9.6	16.5	16.2
Hawaii	32	2.7	2.4	12.6	9.3
Idaho	14	1.0	1.1	13.6	10.3
Illinois	546	5.1	4.8	15.8	14.3
Indiana	177	3.2	3.2	16.6	17.1
Iowa	36	1.4	1.2	14.8	13.7
Kansas	51	2.1	2.0	17.9	16.9
Kentucky	124	3.4	3.3	18.5	17.1
Louisiana	418	10.8	10.9	21.3	20.8
Maine	19	1.7	1.4	13.2	8.2
Maryland	543	10.8	9.9	16.4	13.8
Massachusetts	299	5.1	4.6	14.9	11.7
Michigan	294	3.5	3.2	20.1	19.3
Minnesota	98	2.2	2.0	12.6	13.1
Mississippi	213	8.6	8.6	23.1	22.9
Missouri	172	3.4	3.3	14.4	13.7
Montana	13	1.5	1.4	22.4	19.5
Nebraska	28	1.8	1.9	13.8	13.4
Nevada	126	5.3	5.1	14.7	13.8
New Hampshire	29	2.5	2.2	24.8	19.1
New Jersey	638	8.5	7.7	18.2	14.8
New Mexico	75	4.3	4.3	23.0	20.3
New York	1,801	10.8	9.8	14.3	11.5
North Carolina	557	6.6	6.3	18.8	16.5
North Dakota	8	1.3	1.6	23.8	25.4
Ohio	308	3.2	3.0	15.0	13.5
Oklahoma	141	4.4	4.4	24.2	22.1
Oregon	111	3.3	3.1	16.7	13.3
Pennsylvania	588	5.4	4.9	17.2	14.2
Rhode Island	26	2.9	2.5	11.1	9.8
South Carolina	290	7.1	6.8	17.8	16.4
South Dakota	7	1.0	0.9	13.2	13.4
Tennessee	340	6.2	6.2	20.4	18.9
Texas	1,310	5.9	6.0	15.8	15.2
Utah	31	1.3	1.5	11.7	9.8
Vermont	5	0.9	0.7	7.8	5.3
Virginia	277	3.9	3.7	12.9	10.9
Washington	149	2.5	2.4	11.9	11.0
West Virginia	30	1.9	1.6	17.3	15.4
Wisconsin	83	1.7	1.6	14.1	12.4
Wyoming	4	0.8	0.8	14.0	11.1
Subtotal	15,860	5.9	5.6	16.4	14.4
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	2	1.6	1.8	22.7	14.0
Northern Mariana Islands	1	2.5	3.7	90.9	33.3
Puerto Rico	388	13.0	12.7	23.3	18.7
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	9	10.2	9.8	16.1	11.3
Subtotal	400	12.2	11.9	23.1	18.6
Total	16,260	6.0	5.7	16.5	14.5

Table 7c. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWDH ^a	Age-adjusted rate per 1,000 PLWDH
			2016		
Alabama	254	6.2	5.9	19.9	19.1
Alaska	12	2.0	1.9	17.2	16.4
Arizona	243	4.2	4.1	15.6	13.4
Arkansas	95	3.8	3.7	17.3	15.7
California	1,772	5.4	5.2	14.0	11.8
Colorado	127	2.7	2.7	10.6	8.4
Connecticut	197	6.4	5.6	19.1	13.6
Delaware	55	6.8	6.0	17.3	16.2
District of Columbia	248	42.0	45.6	16.9	14.1
Florida	2,187	12.4	11.3	20.2	17.3
Georgia	833	9.8	9.5	16.1	15.5
Hawaii	39	3.2	3.0	15.5	11.0
Idaho	12	0.9	0.8	11.1	10.2
Illinois	528	4.9	4.7	15.1	13.7
Indiana	200	3.6	3.6	18.2	16.8
Iowa	33	1.3	1.2	12.8	10.9
Kansas	50	2.1	2.1	16.9	14.5
Kentucky	121	3.3	3.1	17.4	15.4
Louisiana	417	10.8	10.8	20.5	19.2
Maine	23	2.0	1.8	15.0	10.1
Maryland	645	12.8	11.7	19.7	16.7
Massachusetts	294	5.0	4.4	14.5	10.5
Michigan	286	3.4	3.2	18.4	17.2
Minnesota	74	1.6	1.5	9.2	9.1
Mississippi	208	8.4	8.2	22.2	21.4
Missouri	193	3.8	3.6	15.9	14.4
Montana	17	1.9	2.0	28.6	20.2
Nebraska	28	1.8	1.7	13.4	13.1
Nevada	150	6.2	5.9	16.5	15.4
New Hampshire	20	1.7	1.8	16.9	13.7
New Jersey	649	8.7	7.7	18.6	14.5
New Mexico	48	2.8	2.5	14.4	12.4
New York	1,865	11.2	10.1	14.7	11.7
North Carolina	523	6.1	5.8	17.2	15.7
North Dakota	4	0.6	0.7	10.7	7.7
Ohio	351	3.6	3.5	16.3	14.7
Oklahoma	119	3.7	3.6	19.9	18.2
Oregon	105	3.0	2.9	15.5	12.9
Pennsylvania	608	5.6	5.0	16.8	14.2
Rhode Island	38	4.2	3.6	15.6	11.5
South Carolina	337	8.1	7.5	20.2	17.8
South Dakota	11	1.6	1.5	20.1	19.5
Tennessee	328	5.9	5.6	19.8	18.9
Texas	1,360	6.0	6.1	15.8	15.5
Utah	49	2.1	2.3	17.8	17.1
Vermont	11	2.0	1.5	16.6	10.6
Virginia	316	4.5	4.2	14.4	12.6
Washington	178	2.9	2.7	13.8	12.8
West Virginia	41	2.6	2.4	22.9	21.5
Wisconsin	88	1.8	1.7	14.6	11.9
Wyoming	5	1.0	1.1	16.1	12.1
Subtotal	16,395	6.1	5.7	16.5	14.4
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	3	2.4	2.9	32.3	32.2
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	401	13.7	12.9	24.1	19.5
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	11	12.5	10.2	19.8	48.2
Subtotal	415	12.8	12.1	24.0	20.0
Total	16,810	6.1	5.8	16.7	14.5

Table 7c. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWDH ^a	Age-adjusted rate per 1,000 PLWDH
2017					
Alabama	257	6.3	6.2	19.3	17.8
Alaska	7	1.2	1.2	9.7	8.5
Arizona	247	4.2	4.0	15.3	13.5
Arkansas	107	4.3	4.2	18.7	17.0
California	1,717	5.2	5.0	13.2	11.0
Colorado	132	2.8	2.7	10.7	8.4
Connecticut	198	6.5	5.4	18.8	15.0
Delaware	67	8.3	7.0	20.0	13.8
District of Columbia	237	39.7	41.9	16.3	13.4
Florida	2,122	11.8	10.5	19.2	15.6
Georgia	823	9.5	9.2	15.4	14.5
Hawaii	37	3.1	3.0	14.7	15.2
Idaho	20	1.4	1.4	17.4	13.6
Illinois	498	4.6	4.3	14.0	12.8
Indiana	212	3.8	3.7	18.7	17.1
Iowa	44	1.7	1.7	16.2	13.1
Kansas	47	2.0	1.9	15.5	14.4
Kentucky	138	3.7	3.5	19.1	16.4
Louisiana	411	10.6	10.5	19.8	18.5
Maine	35	3.0	2.5	21.9	15.6
Maryland	597	11.8	10.7	18.0	14.7
Massachusetts	307	5.2	4.6	14.8	11.6
Michigan	273	3.2	3.1	17.1	15.6
Minnesota	91	2.0	1.9	10.9	9.3
Mississippi	220	8.9	8.8	23.0	21.2
Missouri	213	4.2	4.1	17.0	14.5
Montana	15	1.7	1.7	23.8	20.9
Nebraska	33	2.1	2.0	15.3	14.3
Nevada	174	7.0	6.5	17.9	16.1
New Hampshire	21	1.8	1.6	17.4	13.7
New Jersey	646	8.6	7.5	18.2	13.8
New Mexico	61	3.5	3.2	17.6	13.1
New York	1,787	10.7	9.6	14.0	10.7
North Carolina	547	6.3	5.8	17.4	15.1
North Dakota	3	0.5	0.4	7.3	8.9
Ohio	377	3.8	3.7	16.9	15.5
Oklahoma	109	3.4	3.4	17.8	16.8
Oregon	115	3.3	3.0	16.5	12.4
Pennsylvania	650	6.0	5.4	18.0	14.5
Rhode Island	33	3.6	3.2	12.8	9.6
South Carolina	337	8.0	7.2	19.6	17.2
South Dakota	9	1.3	1.3	15.5	12.4
Tennessee	332	5.9	5.6	19.6	18.2
Texas	1,413	6.1	6.2	15.8	15.1
Utah	22	0.9	1.0	7.9	8.4
Vermont	12	2.2	1.9	17.1	11.4
Virginia	292	4.1	3.7	12.8	10.5
Washington	175	2.8	2.6	13.1	10.4
West Virginia	31	2.0	1.8	17.0	13.8
Wisconsin	101	2.1	1.9	16.1	12.7
Wyoming	6	1.3	1.2	18.3	27.2
Subtotal	16,358	6.0	5.6	16.1	13.6
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	0	0.0	0.0	0.0	0.0
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	401	13.9	12.9	24.5	19.1
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	6	6.8	6.5	11.1	8.4
Subtotal	407	12.7	11.9	23.9	18.7
Total	16,765	6.1	5.7	16.2	13.7

Table 7c. Deaths of persons aged ≥13 years with diagnosed HIV infection, by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWDH ^a	Age-adjusted rate per 1,000 PLWDH
2018					
Alabama ^b	127	3.1	3.0	9.3	8.3
Alaska	9	1.5	1.4	12.6	9.3
Arizona	221	3.7	3.5	13.1	11.1
Arkansas	80	3.2	3.2	13.8	12.3
California	1,709	5.2	4.8	12.9	10.4
Colorado	138	2.9	2.8	10.8	8.1
Connecticut	179	5.8	4.9	16.8	11.4
Delaware	58	7.1	6.2	17.2	12.7
District of Columbia	199	33.1	36.2	13.8	11.2
Florida	1,916	10.5	9.3	17.0	13.5
Georgia	813	9.3	9.0	14.7	13.5
Hawaii	36	3.0	2.6	14.6	10.3
Idaho	13	0.9	0.9	11.0	7.5
Illinois	543	5.1	4.7	14.9	13.1
Indiana	168	3.0	2.9	14.4	12.9
Iowa	49	1.9	1.7	17.3	13.7
Kansas	47	2.0	1.9	15.0	13.7
Kentucky	133	3.6	3.4	17.8	15.4
Louisiana	408	10.6	10.2	19.2	17.2
Maine	21	1.8	1.6	12.9	8.7
Maryland	627	12.3	10.9	18.6	15.0
Massachusetts	293	4.9	4.4	13.9	10.4
Michigan	304	3.6	3.2	18.7	16.7
Minnesota	83	1.8	1.7	9.6	7.5
Mississippi	228	9.2	9.1	23.5	21.0
Missouri	233	4.5	4.2	18.1	15.4
Montana	11	1.2	1.3	16.8	13.0
Nebraska	31	2.0	1.8	14.1	12.7
Nevada	146	5.8	5.4	14.1	12.3
New Hampshire	17	1.4	1.3	13.3	15.1
New Jersey	633	8.4	7.3	17.8	13.5
New Mexico	70	4.0	3.9	19.2	15.1
New York	1,693	10.2	9.0	13.1	9.7
North Carolina	518	5.9	5.4	16.0	13.4
North Dakota	8	1.3	1.3	17.6	24.1
Ohio	363	3.7	3.5	15.9	13.7
Oklahoma ^b	63	1.9	1.9	10.0	9.8
Oregon	101	2.8	2.6	14.1	11.9
Pennsylvania	562	5.1	4.6	15.3	12.2
Rhode Island	40	4.4	3.9	15.2	10.6
South Carolina ^b	206	4.8	4.6	11.7	9.7
South Dakota	10	1.4	1.5	16.1	12.6
Tennessee	352	6.2	5.8	19.9	17.6
Texas	1,308	5.6	5.6	14.1	13.2
Utah	45	1.8	2.0	15.1	13.3
Vermont	11	2.0	1.5	15.3	9.2
Virginia	300	4.2	3.9	12.8	11.0
Washington	217	3.4	3.2	15.7	12.1
West Virginia	47	3.0	2.8	24.3	21.0
Wisconsin	91	1.9	1.7	14.2	11.9
Wyoming	5	1.0	1.0	14.2	10.8
Subtotal	15,483	5.6	5.2	14.9	12.3
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	4	3.1	3.7	37.4	37.4
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	331	11.8	10.7	20.5	16.7
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	2	2.3	1.5	3.7	2.4
Subtotal	337	10.8	9.9	20.0	16.4
Total	15,820	5.7	5.3	15.0	12.4

Abbreviations: PLWDH, persons living with diagnosed HIV infection; pop, population; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWDH at the end of [year X–1]) + (No. new diagnoses during year X).

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 7d. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2014–2018—United States

	2014			2015			2016			2017			2018		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000
	population	PLWA ^a	population	PLWA ^a	population	PLWA ^a	population	PLWA ^a	population	PLWA ^a	population	PLWA ^a	population	PLWA ^a	
Gender															
Male	9,661	—	24.6	9,606	—	24.2	9,721	—	24.2	9,659	—	23.9	9,094	—	22.3
Female	3,332	—	27.0	3,107	—	24.9	3,161	—	25.1	3,087	—	24.2	2,964	—	23.1
Transgender male-to-female ^b	71	—	17.2	88	—	20.7	100	—	22.8	74	—	16.4	86	—	18.4
Transgender female-to-male ^b	3	—	21.7	2	—	14.2	1	—	6.9	3	—	19.7	1	—	6.4
Additional gender identity ^c	0	—	0.0	1	—	18.9	0	—	0.0	1	—	15.9	1	—	15.2
Age at death (yr)															
13–24	127	0.2	10.9	115	0.2	11.0	95	0.2	10.2	89	0.2	10.8	76	0.1	10.4
25–34	759	1.7	15.2	754	1.7	15.1	774	1.7	15.5	710	1.6	14.2	689	1.5	13.9
35–44	1,825	4.5	17.1	1,637	4.0	16.2	1,536	3.8	16.0	1,403	3.4	15.3	1,281	3.1	14.3
45–54	4,296	9.9	21.6	4,131	9.6	21.1	3,830	9.0	19.9	3,608	8.5	19.4	3,240	7.8	18.3
≥55	6,060	7.0	39.5	6,167	7.0	36.7	6,748	7.4	36.6	7,014	7.6	34.9	6,860	7.2	31.4
Race/ethnicity															
American Indian/Alaska Native	44	2.3	32.4	51	2.7	36.3	36	1.9	24.9	35	1.8	23.6	32	1.6	21.1
Asian ^d	47	0.3	8.2	63	0.4	10.5	82	0.5	13.1	67	0.4	10.3	63	0.4	9.3
Black/African American	5,920	18.3	27.9	5,693	17.4	26.5	5,731	17.4	26.4	5,640	16.9	25.6	5,245	15.6	23.6
Hispanic/Latino ^e	2,249	5.4	19.1	2,127	4.9	17.8	2,176	4.9	17.9	2,239	5.0	18.1	2,212	4.8	17.7
Native Hawaiian/other Pacific Islander	6	1.4	16.2	5	1.1	13.0	10	2.2	25.3	8	1.7	19.7	8	1.7	19.1
White	3,954	2.3	25.4	3,981	2.3	25.5	4,086	2.4	26.1	3,942	2.3	25.2	3,715	2.2	23.7
Multiple races	847	20.6	30.0	884	20.8	31.2	862	19.6	30.5	893	19.6	31.7	871	18.5	31.1
Transmission category^f															
Male adult or adolescent^g															
Male-to-male sexual contact	5,241	—	20.2	5,270	—	20.0	5,373	—	20.0	5,433	—	19.9	5,055	—	18.2
Injection drug use	1,979	—	39.2	1,884	—	38.1	1,857	—	38.3	1,760	—	36.9	1,676	—	35.8
Male-to-male sexual contact and injection drug use	1,152	—	31.6	1,187	—	32.9	1,154	—	32.2	1,133	—	31.9	1,163	—	33.1
Heterosexual contact ^h	1,281	—	27.7	1,264	—	26.9	1,352	—	28.2	1,324	—	27.3	1,194	—	24.4
Other ⁱ	79	—	17.5	90	—	19.9	84	—	18.5	83	—	18.3	92	—	20.2
Subtotal	9,732	7.5	24.5	9,695	7.4	24.2	9,821	7.4	24.2	9,734	7.3	23.8	9,180	6.8	22.2
Female adult or adolescent^g															
Injection drug use	1,199	—	37.6	1,103	—	35.0	1,115	—	35.8	1,089	—	35.4	1,000	—	32.8
Heterosexual contact ^h	2,085	—	23.7	1,938	—	21.6	1,981	—	21.7	1,937	—	20.9	1,915	—	20.4
Other ⁱ	51	—	13.5	68	—	17.6	66	—	16.8	64	—	16.1	51	—	12.6
Subtotal	3,335	2.5	26.9	3,109	2.3	24.9	3,162	2.3	25.0	3,090	2.2	24.2	2,966	2.1	23.1
Region of residence															
Northeast	3,017	6.3	22.5	2,895	6.1	21.6	2,920	6.1	21.7	2,872	6.0	21.5	2,695	5.6	20.2
Midwest	1,446	2.6	24.9	1,426	2.5	24.3	1,436	2.5	24.0	1,436	2.5	23.7	1,485	2.6	24.2
South	6,462	6.5	28.6	6,334	6.3	27.6	6,394	6.3	27.6	6,288	6.1	26.7	5,754	5.5	24.1
West	2,142	3.4	20.9	2,149	3.4	20.7	2,233	3.5	21.2	2,228	3.5	20.9	2,212	3.4	20.6
Total^j	13,067	4.9	25.1	12,804	4.8	24.3	12,983	4.8	24.4	12,824	4.7	23.9	12,146	4.4	22.4

Abbreviations: PLWA, persons living with diagnosed HIV infection ever classified as stage 3 (AIDS); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection ever classified as stage 3 (AIDS) may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWA at the end of [year X–1]) + (No. new diagnoses during year X).

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total.

^g Data presented based on sex at birth and include transgender persons.

^h Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

ⁱ Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Includes persons of unknown race/ethnicity.

Table 7e. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2014–2018—United States and 6 dependent areas

	2014			2015			2016			2017			2018		
	No.	Rate per 100,000 population	Rate per 1,000 PLWA ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWA ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWA ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWA ^a	No.	Rate per 100,000 population	Rate per 1,000 PLWA ^a
Gender															
Male	9,910	—	24.8	9,831	—	24.4	9,947	—	24.4	9,863	—	24.0	9,279	—	22.4
Female	3,438	—	27.2	3,184	—	24.9	3,224	—	25.0	3,160	—	24.3	3,006	—	22.9
Transgender male-to-female ^b	71	—	17.2	88	—	20.6	100	—	22.7	75	—	16.6	86	—	18.4
Transgender female-to-male ^b	3	—	21.7	2	—	14.2	1	—	6.9	3	—	19.7	1	—	6.4
Additional gender identity ^c	0	—	0.0	1	—	18.9	0	—	0.0	1	—	15.9	1	—	15.2
Age at death (yr)															
13–24	129	0.2	10.9	117	0.2	11.1	100	0.2	10.6	91	0.2	10.9	79	0.2	10.6
25–34	775	1.8	15.3	774	1.7	15.3	782	1.7	15.5	723	1.6	14.3	699	1.5	14.0
35–44	1,866	4.6	17.2	1,674	4.1	16.3	1,578	3.9	16.2	1,438	3.5	15.4	1,312	3.1	14.5
45–54	4,414	10.1	21.8	4,244	9.7	21.2	3,919	9.1	20.0	3,694	8.6	19.6	3,295	7.8	18.3
≥55	6,238	7.1	39.8	6,297	7.0	36.6	6,893	7.5	36.6	7,156	7.6	34.9	6,988	7.3	31.4
Race/ethnicity															
American Indian/Alaska Native	44	—	32.3	51	—	36.3	36	—	24.8	35	—	23.6	32	—	21.1
Asian ^d	48	—	8.4	63	—	10.5	82	—	13.1	67	—	10.2	63	—	9.2
Black/African American	5,924	—	27.9	5,697	—	26.5	5,740	—	26.4	5,643	—	25.6	5,245	—	23.6
Hispanic/Latino ^e	2,599	—	20.5	2,423	—	18.8	2,452	—	18.8	2,514	—	19.0	2,435	—	18.2
Native Hawaiian/other Pacific Islander	6	—	15.7	6	—	15.0	12	—	29.1	8	—	18.7	10	—	22.6
White	3,954	—	25.4	3,981	—	25.5	4,087	—	26.1	3,942	—	25.1	3,716	—	23.7
Multiple races	847	—	30.0	885	—	31.2	863	—	30.5	893	—	31.6	872	—	31.1
Transmission category^f															
Male adult or adolescent^g															
Male-to-male sexual contact	5,301	—	20.3	5,330	—	20.0	5,427	—	20.0	5,483	—	19.9	5,103	—	18.2
Injection drug use	2,090	—	39.5	1,982	—	38.2	1,948	—	38.3	1,849	—	37.1	1,751	—	35.8
Male-to-male sexual contact and injection drug use	1,175	—	31.8	1,212	—	33.0	1,183	—	32.5	1,152	—	32.0	1,179	—	33.1
Heterosexual contact ^h	1,334	—	28.0	1,306	—	27.0	1,400	—	28.4	1,371	—	27.5	1,237	—	24.6
Other ⁱ	81	—	17.6	91	—	19.7	88	—	19.0	84	—	18.2	95	—	20.5
Subtotal	9,981	7.6	24.7	9,920	7.5	24.3	10,047	7.5	24.4	9,939	7.4	23.9	9,365	6.9	22.3
Female adult or adolescent^g															
Injection drug use	1,235	—	37.9	1,119	—	34.8	1,140	—	35.8	1,109	—	35.3	1,016	—	32.7
Heterosexual contact ^h	2,153	—	23.9	1,998	—	21.8	2,017	—	21.6	1,989	—	21.0	1,939	—	20.2
Other ⁱ	52	—	13.5	69	—	17.5	68	—	16.9	65	—	16.0	53	—	12.9
Subtotal	3,441	2.5	27.2	3,186	2.3	24.9	3,225	2.3	25.0	3,163	2.2	24.3	3,008	2.1	22.9
Region of residence															
Northeast	3,017	6.3	22.5	2,895	6.1	21.6	2,920	6.1	21.7	2,872	6.0	21.5	2,695	5.6	20.2
Midwest	1,446	2.6	24.9	1,426	2.5	24.3	1,436	2.5	24.0	1,436	2.5	23.7	1,485	2.6	24.2
South	6,462	6.5	28.6	6,334	6.3	27.6	6,394	6.3	27.6	6,288	6.1	26.7	5,754	5.5	24.1
West	2,142	3.4	20.9	2,149	3.4	20.7	2,233	3.5	21.2	2,228	3.5	20.9	2,212	3.4	20.6
U.S. dependent areas	355	10.7	37.1	302	9.2	31.9	289	8.9	30.8	278	8.7	30.3	227	7.3	25.1
Total^j	13,422	5.0	25.3	13,106	4.8	24.5	13,272	4.9	24.5	13,102	4.8	24.0	12,373	4.5	22.5

Abbreviations: PLWA, persons living with diagnosed HIV infection ever classified as stage 3 (AIDS); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection ever classified as stage 3 (AIDS) may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWA at the end of [year X–1]) + (No. new diagnoses during year X).

^b "Transgender male-to-female" includes individuals who were assigned "male" sex at birth but have ever identified as "female" gender. "Transgender female-to-male" includes individuals who were assigned "female" sex at birth but have ever identified as "male" gender.

^c Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total.

^g Data presented based on sex at birth and include transgender persons.

^h Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

ⁱ Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Includes persons of unknown race/ethnicity.

Table 7f. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and area of residence, 2014–2018—United States and 6 dependent areas

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWA ^a	Age-adjusted rate per 1,000 PLWA
2014					
Alabama	210	5.2	5.1	37.5	36.6
Alaska	10	1.7	1.7	28.2	24.8
Arizona	173	3.1	3.2	23.4	22.4
Arkansas	95	3.9	3.9	38.6	34.4
California	1,380	4.3	4.2	19.9	17.6
Colorado	119	2.7	2.6	24.1	28.5
Connecticut	161	5.3	4.6	24.6	20.0
Delaware	70	8.9	8.0	35.6	27.7
District of Columbia	175	30.6	33.2	22.2	19.8
Florida	1,657	9.8	9.2	28.4	25.0
Georgia	732	8.8	8.7	28.4	26.6
Hawaii	36	3.0	3.0	23.8	15.5
Idaho	16	1.2	1.2	31.3	25.9
Illinois	425	3.9	3.7	23.8	21.1
Indiana	142	2.6	2.6	26.5	25.2
Iowa	49	1.9	1.9	35.4	27.3
Kansas	35	1.5	1.5	22.0	20.5
Kentucky	87	2.4	2.4	25.3	22.8
Louisiana	340	8.9	9.1	33.2	33.2
Maine	15	1.3	0.9	19.9	13.2
Maryland	480	9.6	8.9	27.4	21.6
Massachusetts	213	3.7	3.4	18.7	15.7
Michigan	219	2.6	2.5	27.5	23.2
Minnesota	70	1.5	1.5	19.4	19.5
Mississippi	191	7.7	7.8	42.2	38.7
Missouri	134	2.6	2.6	21.5	18.5
Montana	7	0.8	0.8	21.3	17.5
Nebraska	22	1.4	1.5	21.0	15.6
Nevada	106	4.5	4.6	25.6	26.1
New Hampshire	9	0.8	0.7	14.0	12.6
New Jersey	510	6.8	6.1	27.0	23.3
New Mexico	52	3.0	3.1	28.1	24.1
New York	1,575	9.5	8.7	20.9	16.9
North Carolina	399	4.8	4.7	30.3	26.8
North Dakota	6	1.0	1.1	40.3	38.0
Ohio	259	2.7	2.6	26.8	24.0
Oklahoma	114	3.6	3.7	39.8	31.3
Oregon	80	2.4	2.3	21.6	20.7
Pennsylvania	497	4.6	4.3	26.1	21.5
Rhode Island	34	3.7	3.2	25.0	19.5
South Carolina	275	6.8	6.5	30.9	29.2
South Dakota	7	1.0	1.0	29.5	19.9
Tennessee	259	4.7	4.6	30.9	29.7
Texas	1,114	5.1	5.2	25.8	23.5
Utah	17	0.7	0.9	12.1	8.2
Vermont	3	0.6	0.4	8.8	5.0
Virginia	235	3.4	3.2	22.5	20.9
Washington	141	2.4	2.3	20.6	16.8
West Virginia	29	1.8	1.7	28.5	29.2
Wisconsin	78	1.6	1.6	25.9	27.8
Wyoming	5	1.0	1.1	33.6	22.3
Subtotal	13,067	4.9	4.7	25.1	22.1
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	1	0.8	0.9	34.5	37.5
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	349	11.6	11.0	37.9	31.8
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	5	5.7	4.4	16.1	10.4
Subtotal	355	10.7	10.1	37.1	31.1
Total	13,422	5.0	4.8	25.3	22.3

Table 7f. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWA ^a	Age-adjusted rate per 1,000 PLWA
			2015		
Alabama	209	5.1	5.1	37.2	33.3
Alaska	9	1.5	1.6	24.3	20.9
Arizona	174	3.1	3.0	23.2	20.6
Arkansas	83	3.4	3.5	33.4	31.0
California	1,412	4.4	4.3	20.2	16.7
Colorado	103	2.3	2.2	20.3	14.7
Connecticut	157	5.1	4.4	24.0	21.7
Delaware	57	7.2	6.4	28.9	20.0
District of Columbia	191	32.8	35.8	24.2	22.2
Florida	1,730	10.0	9.3	29.2	25.9
Georgia	651	7.8	7.6	24.8	22.5
Hawaii	27	2.3	2.1	18.1	12.9
Idaho	7	0.5	0.5	13.5	10.3
Illinois	452	4.2	4.0	25.2	21.1
Indiana	137	2.5	2.5	25.0	28.8
Iowa	29	1.1	1.0	21.0	17.4
Kansas	43	1.8	1.7	28.3	23.4
Kentucky	94	2.5	2.5	27.2	23.9
Louisiana	345	8.9	9.0	33.1	32.5
Maine	15	1.3	1.2	19.9	11.0
Maryland	454	9.0	8.3	24.9	19.5
Massachusetts	225	3.9	3.5	19.6	14.9
Michigan	236	2.8	2.6	30.2	27.6
Minnesota	70	1.5	1.5	18.8	24.4
Mississippi	175	7.1	7.1	38.2	35.4
Missouri	128	2.5	2.4	20.1	18.3
Montana	11	1.3	1.2	31.9	27.2
Nebraska	22	1.4	1.4	20.6	26.5
Nevada	102	4.3	4.1	23.8	22.6
New Hampshire	24	2.1	1.8	38.3	28.3
New Jersey	512	6.9	6.2	27.3	22.6
New Mexico	68	3.9	3.9	36.1	37.3
New York	1,478	8.9	8.0	19.8	15.8
North Carolina	405	4.8	4.6	29.7	23.9
North Dakota	7	1.1	1.3	40.9	39.3
Ohio	231	2.4	2.3	23.3	20.8
Oklahoma	121	3.8	3.9	41.5	38.9
Oregon	88	2.6	2.4	22.8	16.6
Pennsylvania	463	4.3	3.9	24.2	18.0
Rhode Island	18	2.0	1.6	13.3	10.3
South Carolina	232	5.6	5.4	25.9	24.7
South Dakota	6	0.9	0.7	24.1	24.2
Tennessee	252	4.6	4.6	29.7	28.2
Texas	1,087	4.9	5.0	24.6	21.9
Utah	27	1.2	1.3	18.9	13.6
Vermont	3	0.6	0.4	8.6	5.1
Virginia	220	3.1	2.9	21.0	17.4
Washington	120	2.0	1.9	17.2	16.5
West Virginia	28	1.8	1.5	28.3	22.2
Wisconsin	65	1.3	1.2	21.8	19.1
Wyoming	1	0.2	0.2	6.6	2.9
Subtotal	12,804	4.8	4.6	24.3	21.1
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	2	1.6	1.8	62.5	35.3
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	294	9.9	9.6	32.3	29.0
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	6	6.8	6.2	19.4	13.3
Subtotal	302	9.2	8.9	31.9	28.5
Total	13,106	4.8	4.6	24.5	21.2

Table 7f. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWA ^a	Age-adjusted rate per 1,000 PLWA
			2016		
Alabama	187	4.6	4.4	32.7	31.1
Alaska	7	1.2	1.1	18.1	14.3
Arizona	194	3.4	3.2	25.4	20.1
Arkansas	68	2.7	2.6	26.7	21.3
California	1,459	4.5	4.3	20.6	17.7
Colorado	99	2.1	2.1	18.3	14.0
Connecticut	161	5.3	4.6	24.8	17.2
Delaware	46	5.7	5.0	23.3	26.0
District of Columbia	192	32.5	35.5	24.5	19.8
Florida	1,780	10.1	9.2	29.8	25.3
Georgia	654	7.7	7.5	24.5	22.4
Hawaii	30	2.5	2.3	20.5	14.3
Idaho	8	0.6	0.5	14.6	11.1
Illinois	411	3.8	3.6	22.9	19.7
Indiana	162	2.9	2.9	29.1	25.0
Iowa	28	1.1	1.0	19.3	15.5
Kansas	37	1.5	1.5	23.9	18.1
Kentucky	93	2.5	2.4	26.3	22.3
Louisiana	331	8.6	8.6	31.1	29.4
Maine	16	1.4	1.2	20.3	11.8
Maryland	514	10.2	9.3	28.9	23.4
Massachusetts	219	3.7	3.3	19.1	12.4
Michigan	226	2.7	2.5	27.7	23.8
Minnesota	57	1.2	1.1	15.0	14.8
Mississippi	163	6.6	6.4	35.0	30.8
Missouri	160	3.1	2.9	24.9	21.5
Montana	14	1.6	1.6	40.6	24.7
Nebraska	26	1.7	1.6	24.3	21.6
Nevada	117	4.8	4.6	26.1	26.3
New Hampshire	15	1.3	1.3	24.2	18.9
New Jersey	475	6.4	5.6	25.9	21.3
New Mexico	41	2.4	2.1	21.8	17.6
New York	1,532	9.2	8.3	20.5	16.4
North Carolina	383	4.5	4.2	27.7	25.8
North Dakota	3	0.5	0.5	16.2	10.3
Ohio	251	2.6	2.5	24.2	19.7
Oklahoma	91	2.8	2.7	30.8	25.6
Oregon	84	2.4	2.3	21.5	15.3
Pennsylvania	457	4.2	3.8	22.4	19.0
Rhode Island	34	3.7	3.2	24.5	14.6
South Carolina	274	6.6	6.2	30.1	24.9
South Dakota	6	0.9	0.8	23.5	22.3
Tennessee	244	4.4	4.2	29.2	25.4
Texas	1,095	4.8	4.9	24.4	22.0
Utah	38	1.6	1.8	26.3	20.4
Vermont	11	2.0	1.5	30.4	16.4
Virginia	246	3.5	3.2	23.1	21.1
Washington	138	2.3	2.1	19.7	17.6
West Virginia	33	2.1	1.9	32.5	26.0
Wisconsin	69	1.4	1.3	22.9	17.2
Wyoming	4	0.8	0.9	23.0	13.0
Subtotal	12,983	4.8	4.5	24.4	20.8
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	3	2.4	2.9	83.3	72.8
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	275	9.4	8.9	30.5	27.7
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	11	12.5	10.2	35.5	99.5
Subtotal	289	8.9	8.4	30.8	30.6
Total	13,272	4.9	4.6	24.5	20.9

Table 7f. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWA ^a	Age-adjusted rate per 1,000 PLWA
2017					
Alabama	192	4.7	4.6	32.4	27.6
Alaska	4	0.7	0.7	10.3	7.6
Arizona	195	3.3	3.1	25.1	25.6
Arkansas	80	3.2	3.1	30.4	25.5
California	1,427	4.3	4.1	20.1	17.2
Colorado	105	2.2	2.1	19.3	18.7
Connecticut	159	5.2	4.2	24.4	23.0
Delaware	58	7.1	6.0	28.2	17.9
District of Columbia	163	27.3	28.7	21.1	18.3
Florida	1,703	9.5	8.4	28.3	22.5
Georgia	643	7.5	7.2	23.4	21.3
Hawaii	31	2.6	2.5	21.3	35.6
Idaho	15	1.1	1.1	26.3	20.1
Illinois	374	3.5	3.3	20.8	18.8
Indiana	165	3.0	2.8	29.1	26.2
Iowa	31	1.2	1.2	20.5	14.2
Kansas	37	1.5	1.5	23.4	26.2
Kentucky	107	2.9	2.7	29.6	22.7
Louisiana	312	8.1	8.0	28.9	28.4
Maine	24	2.1	1.7	29.6	22.7
Maryland	471	9.3	8.5	26.3	19.4
Massachusetts	234	4.0	3.4	20.3	13.1
Michigan	224	2.7	2.5	27.2	23.1
Minnesota	69	1.5	1.4	17.7	14.4
Mississippi	174	7.0	7.0	36.7	31.7
Missouri	154	3.0	2.9	23.8	18.4
Montana	13	1.5	1.4	37.4	37.5
Nebraska	23	1.5	1.4	21.4	17.1
Nevada	136	5.5	5.1	28.7	28.9
New Hampshire	15	1.3	1.1	24.2	18.8
New Jersey	474	6.3	5.5	25.7	18.6
New Mexico	48	2.8	2.4	25.2	16.2
New York	1,459	8.8	7.8	19.6	15.1
North Carolina	389	4.5	4.1	27.4	23.4
North Dakota	3	0.5	0.4	15.5	14.6
Ohio	276	2.8	2.7	26.0	22.4
Oklahoma	82	2.5	2.6	27.3	25.0
Oregon	85	2.4	2.2	21.4	14.0
Pennsylvania	475	4.4	3.9	23.9	18.7
Rhode Island	27	3.0	2.5	18.7	14.1
South Carolina	263	6.2	5.6	28.4	23.0
South Dakota	3	0.4	0.5	11.5	8.2
Tennessee	256	4.5	4.4	30.1	27.1
Texas	1,145	5.0	5.0	25.0	23.4
Utah	19	0.8	0.8	13.5	9.4
Vermont	5	0.9	0.8	13.3	11.1
Virginia	225	3.2	2.9	20.5	16.5
Washington	145	2.3	2.2	20.2	14.6
West Virginia	25	1.6	1.5	24.6	18.9
Wisconsin	77	1.6	1.5	25.0	17.9
Wyoming	5	1.0	0.9	27.9	55.0
Subtotal	12,824	4.7	4.4	23.9	20.0
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	0	0.0	0.0	0.0	0.0
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	274	9.5	8.9	31.0	28.3
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands	4	4.5	4.0	13.6	10.0
Subtotal	278	8.7	8.1	30.3	27.5
Total	13,102	4.8	4.4	24.0	20.1

Table 7f. Deaths of persons aged ≥13 years with diagnosed HIV infection ever classified as stage 3 (AIDS), by year of death and area of residence, 2014–2018—United States and 6 dependent areas (cont)

	No.	Rate per 100,000 pop	Age-adjusted rate per 100,000 pop	Rate per 1,000 PLWA ^a	Age-adjusted rate per 1,000 PLWA
2018					
Alabama ^b	94	2.3	2.3	15.6	14.0
Alaska	8	1.3	1.2	20.7	13.3
Arizona	174	2.9	2.7	21.9	20.2
Arkansas	61	2.4	2.5	23.1	20.4
California	1,395	4.2	4.0	19.6	16.7
Colorado	113	2.4	2.3	20.3	14.6
Connecticut	147	4.8	4.0	22.6	13.9
Delaware	46	5.6	4.8	22.6	14.9
District of Columbia	153	25.4	27.8	19.8	19.0
Florida	1,518	8.3	7.3	25.1	19.9
Georgia	628	7.2	7.0	22.4	19.2
Hawaii	30	2.5	2.2	21.2	16.2
Idaho	11	0.8	0.8	18.9	12.9
Illinois	418	3.9	3.6	23.0	19.5
Indiana	129	2.3	2.3	22.2	21.0
Iowa	35	1.3	1.2	22.8	15.1
Kansas	37	1.5	1.4	23.0	25.7
Kentucky	100	2.7	2.5	27.6	24.4
Louisiana	321	8.3	8.1	29.4	25.4
Maine	17	1.5	1.4	20.5	14.5
Maryland	497	9.8	8.7	27.7	21.5
Massachusetts	222	3.7	3.3	19.4	12.8
Michigan	237	2.8	2.5	28.5	24.3
Minnesota	64	1.4	1.3	16.2	11.5
Mississippi	189	7.6	7.7	39.4	34.7
Missouri	178	3.5	3.2	27.1	23.4
Montana	9	1.0	1.0	25.4	20.5
Nebraska	24	1.5	1.4	22.2	17.1
Nevada	124	4.9	4.6	25.1	22.6
New Hampshire	14	1.2	1.1	22.0	13.2
New Jersey	467	6.2	5.3	25.5	21.8
New Mexico	51	2.9	2.9	25.7	22.5
New York	1,375	8.3	7.3	18.6	13.0
North Carolina	350	4.0	3.6	24.1	18.5
North Dakota	6	1.0	0.9	29.4	25.2
Ohio	283	2.9	2.7	26.2	22.8
Oklahoma ^b	47	1.4	1.4	15.3	22.9
Oregon	83	2.3	2.1	20.8	14.6
Pennsylvania	413	3.8	3.3	20.6	14.5
Rhode Island	32	3.5	3.1	22.0	13.7
South Carolina ^b	165	3.8	3.8	17.6	13.4
South Dakota	8	1.1	1.2	27.9	26.0
Tennessee	272	4.8	4.5	31.1	26.9
Texas	1,054	4.5	4.5	22.5	21.8
Utah	35	1.4	1.6	23.9	37.8
Vermont	8	1.5	1.1	20.6	10.9
Virginia	221	3.1	2.9	19.7	17.6
Washington	174	2.8	2.5	23.8	16.8
West Virginia	38	2.5	2.2	36.4	35.8
Wisconsin	66	1.3	1.2	21.4	17.3
Wyoming	5	1.0	1.0	28.2	17.1
Subtotal	12,146	4.4	4.1	22.4	18.6
U.S. dependent areas					
American Samoa	0	0.0	0.0	0.0	0.0
Guam	3	2.4	3.0	68.2	85.3
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	222	7.9	7.2	25.5	27.3
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	2	2.3	1.5	6.7	3.7
Subtotal	227	7.3	6.7	25.1	26.7
Total	12,373	4.5	4.1	22.5	18.7

Abbreviations: PLWA, persons living with diagnosed HIV infection ever classified as stage 3 (AIDS); pop, population; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV infection ever classified as stage 3 (AIDS) may be due to any cause. Data are based on residence at death. When information on residence at death was not available, state at death (where a person's death occurred) was used. Data for the year 2018 are preliminary and based on death data received by CDC through December 2019. Trends through 2018 should be interpreted with caution.

^a Denominator was calculated as (No. PLWA at the end of [year X–1]) + (No. new diagnoses during year X).

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 8a. Persons surviving >3 years after a diagnosis of HIV infection during 2010–2015, by year of diagnosis and selected characteristics—United States

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Gender							
Male	190,429	0.94	0.94	0.94	0.94	0.95	0.95
Female	48,401	0.93	0.93	0.93	0.92	0.94	0.94
Transgender male-to-female ^a	3,075	0.98	0.98	0.99	0.98	0.98	0.97
Transgender female-to-male ^a	109	*	*	*	*	*	*
Additional gender identity ^b	45	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	53,761	0.99	0.99	0.99	0.99	0.99	0.99
25–34	71,833	0.97	0.97	0.97	0.97	0.97	0.98
35–44	50,917	0.94	0.94	0.95	0.94	0.95	0.95
45–54	42,839	0.89	0.89	0.90	0.90	0.91	0.92
≥55	22,709	0.79	0.80	0.81	0.81	0.82	0.82
Race/ethnicity							
American Indian/Alaska Native	946	0.88	0.91	0.91	0.90	0.94	0.95
Asian	4,619	0.95	0.96	0.97	0.96	0.97	0.97
Black/African American	105,882	0.93	0.93	0.94	0.94	0.95	0.95
Hispanic/Latino ^c	55,640	0.95	0.95	0.95	0.95	0.96	0.96
Native Hawaiian/other Pacific Islander	295	*	*	*	*	*	*
White	63,790	0.92	0.93	0.94	0.93	0.94	0.94
Multiple races	10,887	0.94	0.96	0.95	0.94	0.95	0.94
Transmission category^d							
Male-to-male sexual contact	154,383	0.95	0.95	0.96	0.95	0.96	0.96
Injection drug use							
Male	8,639	0.85	0.86	0.86	0.85	0.86	0.88
Female	6,780	0.89	0.89	0.89	0.88	0.89	0.91
Male-to-male sexual contact and injection drug use	9,237	0.93	0.95	0.94	0.94	0.95	0.95
Heterosexual contact ^e							
Male	21,049	0.89	0.89	0.90	0.89	0.91	0.91
Female	41,531	0.94	0.93	0.94	0.93	0.94	0.95
Total^f	242,059	0.93	0.94	0.94	0.94	0.95	0.95

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data exclude persons whose month of diagnosis or month of death is unknown.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

^f Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure, or whose risk factor was not reported or identified. Data not displayed because the numbers were too small to be meaningful.

Table 8b. Persons surviving >3 years after a diagnosis of HIV infection during 2010–2015, by year of diagnosis and selected characteristics—United States and 6 dependent areas

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Gender							
Male	193,596	0.93	0.94	0.94	0.94	0.95	0.95
Female	49,433	0.93	0.92	0.93	0.92	0.94	0.94
Transgender male-to-female ^a	3,092	0.98	0.98	0.99	0.98	0.98	0.97
Transgender female-to-male ^a	109	*	*	*	*	*	*
Additional gender identity ^b	45	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	54,425	0.99	0.99	0.99	0.99	0.99	0.99
25–34	72,905	0.97	0.97	0.97	0.97	0.97	0.98
35–44	51,902	0.94	0.94	0.95	0.94	0.95	0.95
45–54	43,756	0.89	0.89	0.90	0.90	0.91	0.92
≥55	23,287	0.78	0.79	0.81	0.80	0.81	0.82
Race/ethnicity							
American Indian/Alaska Native	946	0.88	0.91	0.91	0.90	0.94	0.95
Asian	4,629	0.95	0.96	0.97	0.96	0.97	0.97
Black/African American	105,958	0.93	0.93	0.94	0.94	0.95	0.95
Hispanic/Latino ^c	59,733	0.94	0.94	0.95	0.94	0.95	0.96
Native Hawaiian/other Pacific Islander	309	*	*	*	*	*	*
White	63,807	0.92	0.93	0.94	0.93	0.94	0.94
Multiple races	10,893	0.94	0.96	0.95	0.94	0.95	0.94
Transmission category^d							
Male-to-male sexual contact	156,204	0.95	0.95	0.96	0.95	0.96	0.96
Injection drug use							
Male	9,154	0.84	0.85	0.85	0.84	0.85	0.88
Female	6,906	0.89	0.88	0.89	0.88	0.89	0.91
Male-to-male sexual contact and injection drug use	9,370	0.93	0.94	0.94	0.94	0.95	0.95
Heterosexual contact ^e							
Male	21,761	0.89	0.89	0.89	0.89	0.91	0.91
Female	42,436	0.93	0.93	0.94	0.93	0.94	0.95
Total^f	246,275	0.93	0.93	0.94	0.94	0.95	0.95

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data exclude persons whose month of diagnosis or month of death is unknown.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

^f Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure, or whose risk factor was not reported or identified. Data not displayed because the numbers were too small to be meaningful.

Table 8c. Persons surviving >3 years after a diagnosis of HIV infection during 2010–2015, by year of diagnosis and area of residence—United States and 6 dependent areas

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Alabama ^a	3,970	0.93	0.93	0.93	0.93	0.92	0.94
Alaska	171	*	*	*	*	*	*
Arizona	3,909	0.94	0.93	0.92	0.94	0.96	0.94
Arkansas	1,559	0.95	0.91	0.96	0.92	0.92	0.93
California	29,957	0.94	0.94	0.95	0.94	0.95	0.96
Colorado	2,204	0.96	0.95	0.97	0.97	0.95	0.95
Connecticut	1,902	0.96	0.93	0.95	0.94	0.96	0.99
Delaware	699	0.91	0.94	0.93	0.96	0.96	0.97
District of Columbia	3,242	0.95	0.95	0.96	0.97	0.96	0.96
Florida	26,885	0.93	0.92	0.93	0.93	0.94	0.94
Georgia	15,093	0.93	0.93	0.93	0.94	0.95	0.94
Hawaii	572	*	*	*	*	*	*
Idaho	202	*	*	*	*	*	*
Illinois	9,514	0.93	0.94	0.96	0.95	0.95	0.96
Indiana	3,002	0.93	0.94	0.94	0.93	0.94	0.94
Iowa	680	0.89	0.95	0.93	0.92	0.93	0.97
Kansas	853	0.95	0.96	0.95	0.90	0.96	0.94
Kentucky	2,032	0.92	0.92	0.93	0.92	0.92	0.95
Louisiana	6,726	0.92	0.93	0.92	0.94	0.95	0.94
Maine	297	*	*	*	*	*	*
Maryland	8,114	0.94	0.94	0.95	0.94	0.96	0.96
Massachusetts	3,974	0.97	0.96	0.98	0.97	0.97	0.97
Michigan	4,568	0.94	0.93	0.95	0.93	0.95	0.95
Minnesota	1,851	0.97	0.96	0.97	0.93	0.95	0.97
Mississippi	2,858	0.92	0.91	0.94	0.92	0.93	0.93
Missouri	3,012	0.95	0.95	0.95	0.94	0.96	0.96
Montana	116	*	*	*	*	*	*
Nebraska	521	*	*	*	*	*	*
Nevada	2,449	0.91	0.92	0.92	0.94	0.95	0.95
New Hampshire	237	*	*	*	*	*	*
New Jersey	7,370	0.93	0.91	0.93	0.91	0.94	0.95
New Mexico	791	0.90	0.95	0.97	0.94	0.93	0.91
New York	20,467	0.93	0.94	0.95	0.95	0.95	0.96
North Carolina	8,002	0.94	0.94	0.94	0.95	0.95	0.94
North Dakota	95	*	*	*	*	*	*
Ohio	5,936	0.96	0.95	0.95	0.95	0.94	0.94
Oklahoma ^a	1,828	0.93	0.91	0.94	0.92	0.94	0.94
Oregon	1,408	0.93	0.94	0.93	0.96	0.93	0.96
Pennsylvania	7,905	0.91	0.93	0.93	0.93	0.93	0.94
Rhode Island	517	*	*	*	*	*	*
South Carolina ^a	4,331	0.94	0.93	0.95	0.93	0.93	0.94
South Dakota	160	*	*	*	*	*	*
Tennessee	4,804	0.92	0.94	0.92	0.92	0.93	0.93
Texas	26,154	0.93	0.94	0.94	0.94	0.95	0.95
Utah	656	0.96	0.96	0.95	0.94	0.98	0.97
Vermont	89	*	*	*	*	*	*
Virginia	5,595	0.96	0.93	0.94	0.95	0.96	0.97
Washington	2,842	0.95	0.94	0.97	0.95	0.95	0.98
West Virginia	466	*	*	*	*	*	*
Wisconsin	1,390	0.97	0.95	0.96	0.95	0.94	0.98
Wyoming	84	*	*	*	*	*	*
Subtotal	242,059	0.93	0.94	0.94	0.94	0.95	0.95
U.S. dependent areas							
American Samoa	24	*	*	*	*	*	*
Guam	0	*	*	*	*	*	*
Northern Mariana Islands	6	*	*	*	*	*	*
Puerto Rico	4,050	0.86	0.86	0.88	0.86	0.89	0.90
Republic of Palau	2	*	*	*	*	*	*
U.S. Virgin Islands ^a	134	*	*	*	*	*	*
Subtotal	4,216	0.86	0.86	0.88	0.86	0.89	0.90
Total	246,275	0.93	0.93	0.94	0.94	0.95	0.95

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data are based on residence at time of diagnosis. Data exclude persons whose month of diagnosis or month of death is unknown.

^a Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 8d. Persons with HIV surviving >3 years after stage 3 (AIDS) classification during 2010–2015, by year of diagnosis and selected characteristics—United States

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Gender							
Male	103,269	0.86	0.86	0.87	0.86	0.85	0.86
Female	34,194	0.85	0.85	0.85	0.84	0.84	0.85
Transgender male-to-female ^a	1,505	0.95	0.95	0.94	0.92	0.92	0.90
Transgender female-to-male ^a	44	*	*	*	*	*	*
Additional gender identity ^b	18	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	12,727	0.95	0.96	0.95	0.96	0.94	0.95
25–34	33,315	0.92	0.92	0.93	0.92	0.92	0.92
35–44	36,516	0.89	0.89	0.89	0.89	0.88	0.88
45–54	36,402	0.83	0.83	0.83	0.83	0.83	0.83
≥55	20,070	0.69	0.70	0.72	0.71	0.68	0.71
Race/ethnicity							
American Indian/Alaska Native	533	*	*	*	*	*	*
Asian	1,968	0.91	0.92	0.94	0.91	0.91	0.91
Black/African American	64,930	0.85	0.85	0.86	0.85	0.84	0.86
Hispanic/Latino ^c	29,651	0.89	0.88	0.89	0.88	0.87	0.87
Native Hawaiian/other Pacific Islander	144	*	*	*	*	*	*
White	34,199	0.85	0.85	0.84	0.84	0.83	0.82
Multiple races	7,605	0.87	0.88	0.88	0.88	0.86	0.85
Transmission category^d							
Male-to-male sexual contact	73,601	0.88	0.88	0.89	0.88	0.87	0.87
Injection drug use							
Male	8,258	0.78	0.78	0.77	0.76	0.75	0.74
Female	6,475	0.80	0.81	0.80	0.79	0.78	0.78
Male-to-male sexual contact and injection drug use	6,875	0.86	0.86	0.86	0.84	0.85	0.84
Heterosexual contact ^e							
Male	15,427	0.83	0.83	0.83	0.83	0.82	0.84
Female	27,111	0.86	0.86	0.86	0.85	0.85	0.86
Total	139,030	0.86	0.86	0.86	0.86	0.85	0.85

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data exclude persons whose month of diagnosis or month of death is unknown.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

Table 8e. Persons with HIV surviving >3 years after stage 3 (AIDS) classification during 2010–2015, by year of diagnosis and selected characteristics—United States and 6 dependent areas

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Gender							
Male	105,088	0.86	0.86	0.86	0.86	0.85	0.85
Female	34,946	0.85	0.85	0.85	0.84	0.84	0.84
Transgender male-to-female ^a	1,510	0.95	0.95	0.94	0.92	0.92	0.90
Transgender female-to-male ^a	44	*	*	*	*	*	*
Additional gender identity ^b	18	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	12,862	0.95	0.96	0.95	0.96	0.94	0.95
25–34	33,739	0.92	0.92	0.92	0.92	0.92	0.92
35–44	37,230	0.88	0.89	0.89	0.89	0.88	0.88
45–54	37,220	0.83	0.82	0.83	0.83	0.83	0.82
≥55	20,555	0.69	0.70	0.71	0.71	0.68	0.70
Race/ethnicity							
American Indian/Alaska Native	533	*	*	*	*	*	*
Asian	1,974	0.91	0.92	0.94	0.91	0.91	0.91
Black/African American	64,978	0.85	0.85	0.86	0.85	0.84	0.86
Hispanic/Latino ^c	32,152	0.87	0.87	0.88	0.87	0.86	0.86
Native Hawaiian/other Pacific Islander	152	*	*	*	*	*	*
White	34,209	0.85	0.85	0.84	0.84	0.83	0.82
Multiple races	7,608	0.87	0.88	0.88	0.88	0.86	0.85
Transmission category^d							
Male-to-male sexual contact	74,301	0.88	0.88	0.89	0.88	0.87	0.87
Injection drug use							
Male	8,775	0.77	0.77	0.76	0.75	0.74	0.74
Female	6,626	0.80	0.80	0.79	0.79	0.77	0.78
Male-to-male sexual contact and injection drug use	6,996	0.86	0.86	0.86	0.84	0.85	0.84
Heterosexual contact ^e							
Male	15,899	0.83	0.82	0.83	0.82	0.82	0.84
Female	27,694	0.86	0.86	0.86	0.85	0.85	0.86
Total	141,606	0.86	0.86	0.86	0.86	0.85	0.85

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data exclude persons whose month of diagnosis or month of death is unknown.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

Table 8f. Persons with HIV surviving >3 years after stage 3 (AIDS) classification during 2010–2015, by year of diagnosis and area of residence—United States and 6 dependent areas

	No.	Proportion survived >3 years					
		2010	2011	2012	2013	2014	2015
Alabama ^a	2,199	0.81	0.84	0.80	0.82	0.81	0.84
Alaska	117	*	*	*	*	*	*
Arizona	2,068	0.87	0.86	0.82	0.84	0.85	0.81
Arkansas	830	0.78	0.78	0.86	0.87	0.77	0.83
California	15,047	0.88	0.88	0.87	0.87	0.85	0.86
Colorado	1,278	0.90	0.87	0.91	0.88	0.88	0.85
Connecticut	1,325	0.91	0.90	0.89	0.88	0.88	0.92
Delaware	491	*	*	*	*	*	*
District of Columbia	1,801	0.87	0.88	0.88	0.88	0.82	0.85
Florida	16,450	0.83	0.82	0.85	0.82	0.82	0.83
Georgia	8,753	0.85	0.85	0.85	0.86	0.86	0.87
Hawaii	321	*	*	*	*	*	*
Idaho	139	*	*	*	*	*	*
Illinois	5,120	0.85	0.88	0.89	0.89	0.86	0.87
Indiana	1,660	0.85	0.86	0.87	0.85	0.86	0.84
Iowa	428	*	*	*	*	*	*
Kansas	472	*	*	*	*	*	*
Kentucky	1,044	0.83	0.85	0.84	0.81	0.84	0.82
Louisiana	4,128	0.83	0.83	0.83	0.84	0.82	0.85
Maine	149	*	*	*	*	*	*
Maryland	4,821	0.86	0.88	0.87	0.87	0.88	0.87
Massachusetts	2,237	0.91	0.90	0.93	0.91	0.90	0.92
Michigan	2,603	0.85	0.87	0.86	0.85	0.88	0.83
Minnesota	1,056	0.91	0.90	0.91	0.90	0.90	0.91
Mississippi	1,933	0.84	0.86	0.82	0.84	0.82	0.84
Missouri	1,679	0.86	0.89	0.91	0.87	0.90	0.88
Montana	76	*	*	*	*	*	*
Nebraska	333	*	*	*	*	*	*
Nevada	1,320	0.81	0.80	0.80	0.87	0.83	0.82
New Hampshire	127	*	*	*	*	*	*
New Jersey	4,623	0.85	0.81	0.85	0.84	0.86	0.85
New Mexico	452	*	*	*	*	*	*
New York	12,696	0.89	0.88	0.88	0.88	0.86	0.86
North Carolina	4,627	0.86	0.85	0.86	0.87	0.83	0.83
North Dakota	52	*	*	*	*	*	*
Ohio	3,190	0.87	0.91	0.86	0.89	0.85	0.89
Oklahoma ^a	970	0.84	0.81	0.81	0.76	0.84	0.87
Oregon	886	0.88	0.86	0.88	0.88	0.86	0.89
Pennsylvania	4,697	0.84	0.86	0.88	0.85	0.86	0.86
Rhode Island	307	*	*	*	*	*	*
South Carolina ^a	2,869	0.85	0.85	0.88	0.84	0.82	0.85
South Dakota	100	*	*	*	*	*	*
Tennessee	2,970	0.86	0.83	0.85	0.85	0.83	0.83
Texas	14,570	0.86	0.87	0.86	0.86	0.85	0.85
Utah	359	*	*	*	*	*	*
Vermont	44	*	*	*	*	*	*
Virginia	2,947	0.90	0.85	0.84	0.90	0.84	0.85
Washington	1,504	0.90	0.86	0.92	0.91	0.89	0.86
West Virginia	283	*	*	*	*	*	*
Wisconsin	812	0.91	0.89	0.91	0.85	0.82	0.91
Wyoming	67	*	*	*	*	*	*
Subtotal	139,030	0.86	0.86	0.86	0.86	0.85	0.85
U.S. dependent areas							
American Samoa	0	*	*	*	*	*	*
Guam	12	*	*	*	*	*	*
Northern Mariana Islands	4	*	*	*	*	*	*
Puerto Rico	2,474	0.70	0.74	0.74	0.77	0.73	0.71
Republic of Palau	1	*	*	*	*	*	*
U.S. Virgin Islands ^a	85	*	*	*	*	*	*
Subtotal	2,576	0.71	0.74	0.74	0.77	0.74	0.71
Total	141,606	0.86	0.86	0.86	0.86	0.85	0.85

Abbreviation: asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

Note. Data are based on residence at time of stage 3 (AIDS) classification. Data exclude persons whose month of diagnosis or month of death is unknown.

^a Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2018.

Table 9a. Perinatally acquired HIV infection, by year of birth and mother's race/ethnicity, 2014–2018—United States

Race/ethnicity ^a	2014		2015		2016		2017		2018	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Black/African American	38	6.5	41	7.0	30	5.4	29	5.2	19	3.4
Hispanic/Latino ^b	9	1.0	8	0.9	11	1.2	5	0.6	4	0.5
White	5	0.2	8	0.4	2	0.1	5	0.3	8	0.4
Other	7	2.3	6	2.0	7	1.7	6	1.5	2	0.5
Total	59	1.5	63	1.6	50	1.3	45	1.2	33	0.9

Note. Rates are per 100,000 live births.

^a Live-birth data reflect race/ethnicity of the infant's mother.

^b Hispanics/Latinos can be of any race.

Table 9b. Perinatally acquired HIV infection among persons born in the United States, by year of birth and mother's race/ethnicity, 2014–2018—United States

Race/ethnicity ^a	2014		2015		2016		2017		2018	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Black/African American	32	5.4	35	5.9	28	5.0	25	4.5	18	3.3
Hispanic/Latino ^b	6	0.7	8	0.9	10	1.1	5	0.6	4	0.5
White	5	0.2	8	0.4	2	0.1	4	0.2	8	0.4
Other	5	1.6	5	1.7	6	1.5	5	1.2	2	0.5
Total	48	1.2	56	1.4	46	1.2	39	1.0	32	0.8

Note. Rates are per 100,000 live births.

^a Live-birth data reflect race/ethnicity of the infant's mother.

^b Hispanics/Latinos can be of any race.

Table 10. Prevalence-based HIV care continuum for persons aged ≥13 years living with HIV infection (diagnosed or undiagnosed) at year-end 2018, by selected characteristics—United States

	Persons with HIV infection alive at year-end 2018 ^a	Persons with diagnosed HIV infection alive at year-end 2018 ^b		Receipt of care ^c		Retention in care ^c		Viral suppression ^c	
	Total No.	No.	%	No.	%	No.	%	No.	%
Sex at birth									
Male	912,100	777,859	85	588,800	65	448,800	49	506,400	56
Female	261,800	234,181	89	176,800	68	135,800	52	147,500	56
Age at year-end 2018 (yr)									
13–24	47,800	26,296	55	20,700	43	15,300	32	15,900	33
25–34	216,600	153,228	71	117,500	54	84,600	39	93,200	43
35–44	225,200	190,122	84	142,600	63	105,500	47	118,600	53
45–54	305,300	282,123	92	215,500	71	165,300	54	186,800	61
≥55	379,000	360,271	95	269,100	71	215,800	57	241,400	64
Race/ethnicity									
American Indian/Alaska Native	3,900	3,104	80	2,300	60	1,700	44	2,000	51
Asian ^d	17,600	14,922	85	11,200	64	8,800	50	10,400	59
Black/African American	482,900	415,175	86	306,000	63	231,700	48	248,700	51
Hispanic/Latino ^e	274,100	228,379	83	166,700	61	134,100	49	145,500	53
Native Hawaiian/other Pacific Islander	*1,100	875	...	650	59	460	42	570	52
White	340,700	302,340	89	238,800	70	178,100	52	213,800	63
Multiple races	52,900	46,503	88	40,200	76	30,800	58	33,700	64
Transmission category^f									
Male-to-male sexual contact	679,800	571,934	84	442,100	65	335,200	49	384,900	57
Injection drug use									
Male	73,900	68,794	93	44,100	60	34,800	47	36,600	50
Female	52,000	48,916	94	36,000	69	27,900	54	29,500	57
Male-to-male sexual contact and injection drug use	60,600	55,781	92	44,400	73	34,400	57	36,400	60
Heterosexual contact ^g									
Male	95,800	79,401	83	56,500	59	44,100	46	47,500	50
Female	208,400	183,955	88	139,800	67	107,100	51	117,700	56
Total^h	1,173,900	1,012,040	86	766,100	65	586,000	50	654,800	56

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; RSE, relative standard error [footnotes only].

^a Estimates derived by using HIV surveillance and CD4 data for persons aged ≥13 years at diagnosis (i.e., persons living with diagnosed or undiagnosed HIV infection). Estimates rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of ≤1,000 to reflect model uncertainty. Estimates with an RSE of 30%–50% are preceded by an asterisk (*) and should be interpreted with caution because they do not meet the standard of reliability. Estimates with an RSE of >50% are not shown and are replaced by an ellipsis (...). Data previously published in *HIV Surveillance Supplemental Report 2020*;25(No. 1). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.

^b Reported to National HIV Surveillance System. Data previously published in *HIV Surveillance Supplemental Report 2020*;25(No. 1). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.

^c Estimates are the result of extrapolating data from the 42 jurisdictions with complete CD4 and viral load reporting by applying the percentage in the 42 jurisdictions (found in Tables 4a and 5a) to the total number of people living with diagnosed HIV in the United States. Estimates rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of ≤1,000 to reflect model uncertainty.

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure, or whose risk factor was not reported or identified.

Table 11. Monitoring national HIV prevention goals by using data from the National HIV Surveillance System and other surveillance systems

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018
Increase the percentage of persons living with HIV who know their serostatus to at least 90 percent ^a	82.2%	82.8%	83.4%	83.9%	84.4%	84.8%	85.3%	85.8%	86.2%
Reduce the number of new diagnoses by at least 25 percent	43,806	42,218	42,616	40,628	40,873	40,442	40,142	38,789	37,968 ^b
Reduce the percentage of young gay and bisexual males who have engaged in HIV risk behaviors by at least 10 percent ^c	n/a	n/a	n/a	34.1%	n/a	35.2%	n/a	29.1%	n/a
Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least 85 percent	70.2%	70.4%	71.4%	72.6%	74.5%	75.0%	75.9%	77.8%	80.2%
Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90 percent	54.7%	53.6%	55.3%	56.5%	56.9%	57.2%	57.6%	57.9%	57.9% ^d
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80 percent	46.0%	48.5%	51.6%	54.7%	57.9%	59.8%	61.5%	63.1%	64.7% ^d
Reduce the percentage of persons in HIV medical care who are homeless to no more than 5 percent ^e	7.7%	8.1%	8.3%	7.9%	9.0%	8.4%	8.4%	8.8%	n/a
Reduce the death rate among persons with diagnosed HIV infection by at least 33 percent ^f	19.4	18.0	16.8	15.8	15.5	14.4	14.4	13.6	12.3 ^d
Reduce disparities in the rate of new diagnoses by at least 15 percent among gay and bisexual men ^g	20.5	21.2	21.9	22.1	22.5	22.6	22.4	22.4	22.2
Reduce disparities in the rate of new diagnoses by at least 15 percent among young black gay and bisexual men ^g	109.4	112.4	112.9	117.2	118.5	118.0	115.7	113.2	113.1
Reduce disparities in the rate of new diagnoses by at least 15 percent among black females ^g	1.7	1.5	1.4	1.3	1.2	1.1	1.1	1.1	1.0
Reduce disparities in the rate of new diagnoses by at least 15 percent among persons living in the southern United States ^g	0.33	0.35	0.33	0.35	0.35	0.36	0.36	0.36	0.36
Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least 80 percent	30.9%	34.3%	38.9%	43.7%	48.1%	51.2%	53.8%	57.1%	60.3% ^d
Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent	39.6%	40.6%	44.1%	47.1%	50.3%	52.1%	53.6%	54.9%	56.2% ^d
Increase the percentage of transgender women in HIV medical care who are virally suppressed to at least 90 percent (developmental) ^h	62.2%	65.3%	68.5%	72.0%	73.9%	77.0%	79.0%	80.5%	81.1%
Increase the number of adults prescribed preexposure prophylaxis (PrEP) by at least 500 percent (developmental) ⁱ	n/a	n/a	n/a	n/a	10,134	40,166	75,617	113,237	156,135
Decrease stigma among persons with diagnosed HIV infection by at least 25 percent, from a baseline median score of 38.3 to 28.7 (developmental) ^j	n/a	n/a	n/a	n/a	n/a	38.3	39.0	38.6	n/a

Abbreviations: n/a, not available; CDC, Centers for Disease Control and Prevention [footnotes only]; PrEP, preexposure prophylaxis [footnotes only].

Note. National-level indicators adapted from National HIV/AIDS Strategy for the United States: Updated to 2020 (NHAS 2020)—Indicator Supplement. For the list of NHAS 2020 indicators and information on the rationale, data sources, and measures for each indicator, see <http://www.hiv.gov/sites/default/files/nhas-indicators-supplement-dec-2016.pdf>.

^a CDC. Estimated HIV incidence and prevalence in the United States, 2014–2018. *HIV Surveillance Supplemental Report* 2020;25(No. 1). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2020.

^b Reported by using 12-month reporting delay and not considered preliminary data.

^c The 2013 estimate is based on data from 15 large urban school districts; data for 2015 and later are national estimates. For more information about the Youth Risk Behavior Surveillance System (YRBSS), see <http://www.cdc.gov/yrbs>.

^d Data are preliminary and based on deaths reported to CDC through December 2019.

^e Prior to 2015, the Medical Monitoring Project (MMP) used 3-stage sampling to collect data from a representative sample of adults receiving HIV medical care during 2010–2014 in the United States and Puerto Rico. Starting in 2015, MMP samples HIV diagnoses from the National HIV Surveillance System (NHSS). The homelessness estimate provided is subset to persons receiving HIV medical care in the past 12 months. For more information about MMP, see <http://www.cdc.gov/hiv/statistics/systems/mmp/>.

^f Death rate is age-adjusted and measured per 1,000 persons with diagnosed HIV infection in the United States.

^g Measures shown are ratios of the disparity rate in the specified group to the overall rate. Population data from Vintage 2014 Census data were used to calculate rates for 2010–2013; Vintage 2015 Census data were used for 2014; Vintage 2016 Census data were used for 2015; Vintage 2017 Census data were used for 2016; Vintage 2018 Census data were used for 2017 and 2018.

^h Health Resources and Services Administration. Ryan White HIV/AIDS Program annual client-level data report 2018. <http://hab.hrsa.gov/data/data-reports>. Published December 2019. Accessed April 30, 2020. For 2010 baseline data, see <http://www.hiv.gov/sites/default/files/nhas-indicators-supplement-dec-2016.pdf>.

ⁱ Data licensed from MarketScan Commercial Claims and Encounter Database (Truven Health Analytics, Ann Arbor, MI) are analyzed by CDC. Estimates are for the annual number of PrEP prescriptions for persons aged ≥16 years that was determined using a validated algorithm that included persons who had at least one tenofovir disoproxil fumarate and emtricitabine (TDF/FTC) prescription for >28 days and for whom TDF/FTC was not prescribed for HIV treatment, hepatitis B treatment, or HIV postexposure prophylaxis. Furukawa NW, Smith DK, Gonzalez CJ, et al. Evaluation of algorithms used for PrEP surveillance using a reference population from New York City—July 2016–June 2018. *Public Health Rep* 2020;135(2):202–210. doi:10.1177/0033354920904085

^j The stigma scale used for this indicator is a 10-item scale, ranging from 0 (no stigma) to 100 (high stigma) and measured among persons aged >18 years with diagnosed HIV infection living in the United States and Puerto Rico. The scale used for this indicator is discussed in Wright K, Naar-King S, Lam P, Templin T, Frey M. Stigma scale revised: reliability and validity of a brief measure of stigma for HIV+ youth. *J Adolesc Health* 2007;40(1):96–98. Data are collected through CDC's MMP. The 2015 median score is weighted. The previously published median score was unweighted.

Table 12. Monitoring Ending the HIV Epidemic (EHE) indicators by using data from the National HIV Surveillance System (NHSS) and other surveillance systems

Indicator	2017	2018
Reduce the estimated number of new infections by 90 percent ^a	37,000	36,400
Increase the percentage of people living with HIV who know their serostatus to at least 95 percent (Knowledge of HIV status) ^{a,b}	85.8	86.2
Reduce the number of new HIV diagnoses by 90 percent ^c	38,351	37,428
Increase the percentage of persons with newly diagnosed HIV infection linked to HIV medical care within one month of diagnosis to at least 95 percent	77.8	80.2
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 95 percent	63.1	64.7
Increase the percentage of the estimated number of persons with indications for PrEP who have been classified as having been prescribed PrEP to at least 50% (PrEP coverage) ^d	12.6	18.1

Abbreviations: PrEP, preexposure prophylaxis; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Information on Ending the HIV Epidemic: A Plan for America can be found at <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. For data on EHE Phase I jurisdictions, see <https://www.cdc.gov/hiv/pdf/library/reports/ehe-core-indicators/cdc-hiv-ehe-core-indicators-2019.pdf>.

^a CDC. Estimated HIV incidence and prevalence in the United States, 2014–2018. *HIV Surveillance Supplemental Report* 2020;25(No. 1). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2020.

^b Data for the year 2018 data are preliminary and based on deaths reported to CDC as of December 2019.

^c CDC. *HIV Surveillance Report, 2018 (Updated)*; vol. 31. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2020.

^d PrEP coverage, reported as a percentage, was calculated as the number of persons classified as having been prescribed PrEP divided by the estimated number of persons who had indications for PrEP. Estimated using 2017 data from IQVIA pharmacy database, National HIV Surveillance System, National Health and Nutrition Examination Survey, and American Community Survey.

Table 13. Status of CD4 and viral load reporting by HIV surveillance reporting area, as of December 2019—United States and 6 dependent areas

	CD4 count (cells/ μ L) or CD4 percentage		Viral load	
	Lab reporting required ^a	Reportable level ^b	Lab reporting required ^a	Reportable level ^b
Alabama	Yes	All values	Yes	Any result
Alaska	Yes	All values	Yes	Any result
American Samoa	No	—	No	—
Arizona	Yes	All values	Yes	Any result
Arkansas	Yes	All values	Yes	Any result
California	Yes	All values	Yes	Any result
Colorado	Yes	All values	Yes	Any result
Connecticut	Yes	All values	Yes	Any result
Delaware	Yes	All values	Yes	Any result
District of Columbia	Yes	All values	Yes	Any result
Federated States of Micronesia	No	—	No	—
Florida	Yes	All values	Yes	Any result
Georgia	Yes	All values	Yes	Any result
Guam	Yes	All values	Yes	Any result
Hawaii	Yes	All values	Yes	Any result
Idaho	Yes	<200 or <14%	Yes	Detectable
Illinois	Yes	All values	Yes	Any result
Indiana	Yes	All values	Yes	Any result
Iowa	Yes	All values	Yes	Any result
Kansas	Yes	All values	Yes	Any result
Kentucky	Yes	All values	Yes	Any result
Louisiana	Yes	All values	Yes	Any result
Maine	Yes	All values	Yes	Any result
Marshall Islands	No	—	No	—
Maryland	Yes	All values	Yes	Any result
Massachusetts	Yes	All values	Yes	Any result
Michigan	Yes	All values	Yes	Any result
Minnesota	Yes	All values	Yes	Any result
Mississippi	Yes	All values	Yes	Any result
Missouri	Yes	All values	Yes	Any result
Montana	Yes	All values	Yes	Any result
Nebraska	Yes	All values	Yes	Any result

Table 13. Status of CD4 and viral load reporting by HIV surveillance reporting area, as of December 2019—United States and 6 dependent areas (cont)

	CD4 count (cells/ μ L) or CD4 percentage		Viral load	
	Lab reporting required ^a	Reportable level ^b	Lab reporting required ^a	Reportable level ^b
Nevada	Yes	All values	Yes	Any result
New Hampshire	Yes	All values	Yes	Any result
New Jersey	Yes	<200 or <14%	Yes	Any result
New Mexico	Yes	All values	Yes	Any result
New York	Yes	All values	Yes	Any result
North Carolina	Yes	All values	Yes	Any result
North Dakota	Yes	All values	Yes	Any result
Northern Mariana Islands	No	—	No	—
Ohio	Yes	All values	Yes	Any result
Oklahoma	Yes	All values	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
Republic of Palau	No	—	No	—
Rhode Island	Yes	All values	Yes	Any result
South Carolina	Yes	All values	Yes	Any result
South Dakota	Yes	All values	Yes	Any result
Tennessee	Yes	All values	Yes	Any result
Texas	Yes	All values	Yes	Any result
U.S. Virgin Islands	Yes	<200 or <14%	Yes	Detectable
Utah	Yes	All values	Yes	Any result
Vermont	Yes	All values	Yes	Any result
Virginia	Yes	All values	Yes	Any result
Washington	Yes	All values	Yes	Any result
West Virginia	Yes	All values	Yes	Any result
Wisconsin	Yes	All values	Yes	Any result
Wyoming	Yes	All values	Yes	Any result

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage.

^a Laws, regulations, or statutes in most areas 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 laws, regulations, or statutes.

Table A1a. Stage of disease at time of HIV diagnosis during 2017 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
California											
Alameda County	204	20	9.8	52	25.5	63	30.9	40	19.6	29	14.2
Los Angeles County	1,799	141	7.8	369	20.5	493	27.4	307	17.1	489	27.2
Orange County	312	24	7.7	77	24.7	92	29.5	71	22.8	48	15.4
Riverside County	273	21	7.7	64	23.4	78	28.6	61	22.3	49	17.9
Sacramento County	170	10	5.9	60	35.3	53	31.2	28	16.5	19	11.2
San Bernardino County	253	21	8.3	54	21.3	74	29.2	48	19.0	56	22.1
San Diego County	414	58	14.0	111	26.8	113	27.3	62	15.0	70	16.9
San Francisco County	244	41	16.8	63	25.8	73	29.9	46	18.9	21	8.6
District of Columbia	313	16	5.1	86	27.5	107	34.2	39	12.5	65	20.8
Florida											
Broward County	671	25	3.7	215	32.0	209	31.1	120	17.9	102	15.2
Duval County	300	11	3.7	77	25.7	88	29.3	61	20.3	63	21.0
Hillsborough County	300	10	3.3	82	27.3	86	28.7	74	24.7	48	16.0
Miami-Dade County	1,141	23	2.0	385	33.7	389	34.1	196	17.2	148	13.0
Orange County	461	15	3.3	121	26.2	145	31.5	94	20.4	86	18.7
Palm Beach County	289	4	1.4	75	26.0	96	33.2	77	26.6	37	12.8
Pinellas County	164	7	4.3	40	24.4	43	26.2	41	25.0	33	20.1
Georgia											
Cobb County	153	5	3.3	48	31.4	39	25.5	39	25.5	22	14.4
DeKalb County	364	10	2.7	86	23.6	109	29.9	73	20.1	86	23.6
Fulton County	618	19	3.1	154	24.9	227	36.7	108	17.5	110	17.8
Gwinnett County	173	8	4.6	43	24.9	52	30.1	41	23.7	29	16.8
Illinois											
Cook County	978	56	5.7	232	23.7	317	32.4	188	19.2	185	18.9
Indiana											
Marion County	226	5	2.2	51	22.6	70	31.0	43	19.0	57	25.2
Louisiana											
East Baton Rouge Parish	166	13	7.8	48	28.9	47	28.3	34	20.5	24	14.5
Orleans Parish	186	23	12.4	48	25.8	53	28.5	37	19.9	25	13.4
Maryland											
Baltimore City	238	26	10.9	54	22.7	71	29.8	44	18.5	43	18.1
Montgomery County	162	4	2.5	34	21.0	66	40.7	34	21.0	24	14.8
Prince George's County	309	26	8.4	62	20.1	100	32.4	93	30.1	28	9.1
Massachusetts											
Suffolk County	159	12	7.5	47	29.6	54	34.0	30	18.9	16	10.1
Michigan											
Wayne County	325	31	9.5	88	27.1	119	36.6	53	16.3	34	10.5
New York											
Bronx County	506	70	13.8	122	24.1	175	34.6	80	15.8	59	11.7
Kings County	630	64	10.2	158	25.1	217	34.4	136	21.6	55	8.7
New York County	396	59	14.9	104	26.3	127	32.1	64	16.2	42	10.6
Queens County	431	42	9.7	102	23.7	160	37.1	82	19.0	45	10.4
North Carolina											
Mecklenburg County	269	24	8.9	67	24.9	56	20.8	35	13.0	87	32.3
Ohio											
Cuyahoga County	148	5	3.4	37	25.0	59	39.9	26	17.6	21	14.2
Franklin County	222	6	2.7	67	30.2	65	29.3	61	27.5	23	10.4
Hamilton County	187	6	3.2	39	20.9	66	35.3	38	20.3	38	20.3
Pennsylvania											
Philadelphia County	498	71	14.3	130	26.1	162	32.5	89	17.9	46	9.2
Tennessee											
Shelby County	259	1	0.4	67	25.9	76	29.3	46	17.8	69	26.6
Texas											
Bexar County	348	24	6.9	83	23.9	95	27.3	66	19.0	80	23.0
Dallas County	815	59	7.2	192	23.6	247	30.3	155	19.0	162	19.9
Harris County	1,100	120	10.9	253	23.0	317	28.8	217	19.7	193	17.5
Tarrant County	303	22	7.3	80	26.4	89	29.4	61	20.1	51	16.8
Travis County	210	9	4.3	56	26.7	66	31.4	41	19.5	38	18.1
Washington											
King County	210	32	15.2	55	26.2	68	32.4	42	20.0	13	6.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona, Nevada, and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

Table A1b. Stage of disease at time of HIV diagnosis during 2018 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b		
		No.	%	No.	%	No.	%	No.	%	No.	%	
California												
Alameda County	198	20	10.1	61	30.8	57	28.8	33	16.7	27	13.6	
Los Angeles County	1,690	177	10.5	377	22.3	509	30.1	273	16.2	354	20.9	
Orange County	286	27	9.4	62	21.7	93	32.5	72	25.2	32	11.2	
Riverside County	257	25	9.7	63	24.5	81	31.5	44	17.1	44	17.1	
Sacramento County	156	5	3.2	49	31.4	46	29.5	35	22.4	21	13.5	
San Bernardino County	274	15	5.5	68	24.8	75	27.4	55	20.1	61	22.3	
San Diego County	378	60	15.9	98	25.9	102	27.0	78	20.6	40	10.6	
San Francisco County	237	58	24.5	65	27.4	61	25.7	39	16.5	14	5.9	
District of Columbia	275	17	6.2	72	26.2	93	33.8	43	15.6	50	18.2	
Florida												
Broward County	626	18	2.9	212	33.9	192	30.7	119	19.0	85	13.6	
Duval County	274	11	4.0	70	25.5	85	31.0	49	17.9	59	21.5	
Hillsborough County	301	21	7.0	97	32.2	88	29.2	62	20.6	33	11.0	
Miami-Dade County	1,177	44	3.7	410	34.8	388	33.0	197	16.7	138	11.7	
Orange County	464	15	3.2	144	31.0	142	30.6	90	19.4	73	15.7	
Palm Beach County	284	3	1.1	83	29.2	96	33.8	61	21.5	41	14.4	
Pinellas County	175	16	9.1	43	24.6	54	30.9	39	22.3	23	13.1	
Georgia												
Cobb County	153	6	3.9	36	23.5	54	35.3	25	16.3	32	20.9	
DeKalb County	362	13	3.6	121	33.4	91	25.1	68	18.8	69	19.1	
Fulton County	605	22	3.6	180	29.8	204	33.7	104	17.2	95	15.7	
Gwinnett County	151	4	2.6	34	22.5	51	33.8	28	18.5	34	22.5	
Illinois												
Cook County	970	59	6.1	228	23.5	301	31.0	187	19.3	195	20.1	
Indiana												
Marion County	205	2	1.0	53	25.9	56	27.3	45	22.0	49	23.9	
Louisiana												
East Baton Rouge Parish	178	28	15.7	55	30.9	61	34.3	15	8.4	19	10.7	
Orleans Parish	179	36	20.1	46	25.7	46	25.7	32	17.9	19	10.6	
Maryland												
Baltimore City	231	26	11.3	66	28.6	63	27.3	40	17.3	36	15.6	
Montgomery County	126	5	4.0	33	26.2	42	33.3	33	26.2	13	10.3	
Prince George's County	308	20	6.5	85	27.6	100	32.5	62	20.1	41	13.3	
Massachusetts												
Suffolk County	147	12	8.2	44	29.9	44	29.9	35	23.8	12	8.2	
Michigan												
Wayne County	300	35	11.7	79	26.3	99	33.0	56	18.7	31	10.3	
Nevada												
Clark County	450	24	5.3	151	33.6	161	35.8	82	18.2	32	7.1	
New York												
Bronx County	447	41	9.2	138	30.9	135	30.2	95	21.3	38	8.5	
Kings County	548	57	10.4	144	26.3	184	33.6	116	21.2	47	8.6	
New York County	371	48	12.9	96	25.9	128	34.5	66	17.8	33	8.9	
Queens County	411	37	9.0	99	24.1	145	35.3	99	24.1	31	7.5	
North Carolina												
Mecklenburg County	242	27	11.2	31	12.8	55	22.7	28	11.6	101	41.7	
Ohio												
Cuyahoga County	149	9	6.0	30	20.1	53	35.6	41	27.5	16	10.7	
Franklin County	194	16	8.2	57	29.4	60	30.9	39	20.1	22	11.3	
Hamilton County	184	9	4.9	38	20.7	68	37.0	28	15.2	41	22.3	
Pennsylvania												
Philadelphia County	442	66	14.9	131	29.6	126	28.5	66	14.9	53	12.0	
Tennessee												
Shelby County	303	4	1.3	83	27.4	94	31.0	59	19.5	63	20.8	
Texas												
Bexar County	325	19	5.8	93	28.6	76	23.4	59	18.2	78	24.0	
Dallas County	785	75	9.6	180	22.9	238	30.3	133	16.9	159	20.3	
Harris County	1,199	113	9.4	288	24.0	353	29.4	233	19.4	212	17.7	
Tarrant County	275	15	5.5	61	22.2	95	34.5	61	22.2	43	15.6	
Travis County	189	7	3.7	63	33.3	67	35.4	30	15.9	22	11.6	
Washington												
King County	292	32	11.0	92	31.5	91	31.2	59	20.2	18	6.2	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona and Puerto Rico.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

Table A2. Linkage to HIV medical care within 1 month after HIV diagnosis during 2017 and 2018 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	2017					2018				
	Total No.	≥1 CD4 or VL tests		No CD4 or VL test		Total No.	≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%		No.	%	No.	%
California										
Alameda County	204	175	85.8	29	14.2	198	164	82.8	34	17.2
Los Angeles County	1,799	1,257	69.9	542	30.1	1,690	1,286	76.1	404	23.9
Orange County	312	240	76.9	72	23.1	286	223	78.0	63	22.0
Riverside County	273	206	75.5	67	24.5	257	214	83.3	43	16.7
Sacramento County	170	142	83.5	28	16.5	156	133	85.3	23	14.7
San Bernardino County	253	166	65.6	87	34.4	274	197	71.9	77	28.1
San Diego County	414	314	75.8	100	24.2	378	317	83.9	61	16.1
San Francisco County	244	206	84.4	38	15.6	237	219	92.4	18	7.6
District of Columbia	313	249	79.6	64	20.4	275	231	84.0	44	16.0
Florida										
Broward County	671	541	80.6	130	19.4	626	527	84.2	99	15.8
Duval County	300	211	70.3	89	29.7	274	204	74.5	70	25.5
Hillsborough County	300	229	76.3	71	23.7	301	248	82.4	53	17.6
Miami-Dade County	1,141	925	81.1	216	18.9	1,177	994	84.5	183	15.5
Orange County	461	325	70.5	136	29.5	464	356	76.7	108	23.3
Palm Beach County	289	220	76.1	69	23.9	284	232	81.7	52	18.3
Pinellas County	164	124	75.6	40	24.4	175	151	86.3	24	13.7
Georgia										
Cobb County	153	125	81.7	28	18.3	153	118	77.1	35	22.9
DeKalb County	364	276	75.8	88	24.2	362	282	77.9	80	22.1
Fulton County	618	493	79.8	125	20.2	605	488	80.7	117	19.3
Gwinnett County	173	131	75.7	42	24.3	151	115	76.2	36	23.8
Illinois										
Cook County	978	801	81.9	177	18.1	970	777	80.1	193	19.9
Indiana										
Marion County	226	154	68.1	72	31.9	205	132	64.4	73	35.6
Louisiana										
East Baton Rouge Parish	166	134	80.7	32	19.3	178	153	86.0	25	14.0
Orleans Parish	186	152	81.7	34	18.3	179	139	77.7	40	22.3
Maryland										
Baltimore City	238	200	84.0	38	16.0	231	181	78.4	50	21.6
Montgomery County	162	129	79.6	33	20.4	126	108	85.7	18	14.3
Prince George's County	309	271	87.7	38	12.3	308	248	80.5	60	19.5
Massachusetts										
Suffolk County	159	140	88.1	19	11.9	147	134	91.2	13	8.8
Michigan										
Wayne County	325	262	80.6	63	19.4	300	245	81.7	55	18.3
Nevada										
Clark County	—	—	—	—	—	450	394	87.6	56	12.4
New York										
Bronx County	506	423	83.6	83	16.4	447	388	86.8	59	13.2
Kings County	630	536	85.1	94	14.9	548	481	87.8	67	12.2
New York County	396	337	85.1	59	14.9	371	323	87.1	48	12.9
Queens County	431	365	84.7	66	15.3	411	371	90.3	40	9.7
North Carolina										
Mecklenburg County	269	192	71.4	77	28.6	242	191	78.9	51	21.1
Ohio										
Cuyahoga County	148	127	85.8	21	14.2	149	127	85.2	22	14.8
Franklin County	222	193	86.9	29	13.1	194	165	85.1	29	14.9
Hamilton County	187	160	85.6	27	14.4	184	144	78.3	40	21.7
Pennsylvania										
Philadelphia County	498	445	89.4	53	10.6	442	383	86.7	59	13.3
Tennessee										
Shelby County	259	163	62.9	96	37.1	303	224	73.9	79	26.1
Texas										
Bexar County	348	239	68.7	109	31.3	325	223	68.6	102	31.4
Dallas County	815	612	75.1	203	24.9	785	584	74.4	201	25.6
Harris County	1,100	802	72.9	298	27.1	1,199	886	73.9	313	26.1
Tarrant County	303	216	71.3	87	28.7	275	209	76.0	66	24.0
Travis County	210	148	70.5	62	29.5	189	151	79.9	38	20.1
Washington										
King County	210	196	93.3	14	6.7	292	266	91.1	26	8.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥ 1 CD4 or VL tests ≤ 1 month or ≤ 3 months after HIV diagnosis. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona, Nevada (2017 only), and Puerto Rico.

Table A3a. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2017 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
		No.	%	No.	%
California					
Alameda County	5,679	4,717	83.1	3,545	62.4
Los Angeles County	46,844	33,858	72.3	26,844	57.3
Orange County	6,486	4,648	71.7	3,741	57.7
Riverside County	8,243	7,151	86.8	5,807	70.4
Sacramento County	4,014	3,300	82.2	2,382	59.3
San Bernardino County	3,857	2,848	73.8	2,105	54.6
San Diego County	12,552	9,471	75.5	6,974	55.6
San Francisco County	12,070	10,136	84.0	7,611	63.1
District of Columbia	13,975	9,559	68.4	7,196	51.5
Florida					
Broward County	18,513	14,317	77.3	11,758	63.5
Duval County	5,607	4,395	78.4	3,335	59.5
Hillsborough County	6,357	4,972	78.2	4,064	63.9
Miami-Dade County	24,869	17,177	69.1	14,302	57.5
Orange County	7,885	5,896	74.8	4,582	58.1
Palm Beach County	7,545	5,283	70.0	4,254	56.4
Pinellas County	4,285	3,560	83.1	2,925	68.3
Georgia					
Cobb County	2,853	2,083	73.0	1,622	56.9
DeKalb County	7,833	5,905	75.4	4,700	60.0
Fulton County	13,748	10,068	73.2	8,077	58.8
Gwinnett County	2,578	1,937	75.1	1,508	58.5
Illinois					
Cook County	23,983	17,314	72.2	10,542	44.0
Indiana					
Marion County	4,313	3,493	81.0	2,666	61.8
Louisiana					
East Baton Rouge Parish	3,671	3,023	82.3	2,510	68.4
Orleans Parish	4,649	3,630	78.1	2,853	61.4
Maryland					
Baltimore City	9,995	6,833	68.4	4,808	48.1
Montgomery County	3,193	1,816	56.9	1,335	41.8
Prince George's County	5,678	3,816	67.2	2,687	47.3
Massachusetts					
Suffolk County	5,610	4,378	78.0	3,371	60.1
Michigan					
Wayne County	6,122	5,007	81.8	3,586	58.6
New York					
Bronx County	26,861	21,260	79.1	18,098	67.4
Kings County	25,672	18,978	73.9	16,079	62.6
New York County	26,680	18,525	69.4	15,425	57.8
Queens County	15,230	10,724	70.4	9,079	59.6
North Carolina					
Mecklenburg County	5,428	4,197	77.3	3,413	62.9
Ohio					
Cuyahoga County	4,481	2,658	59.3	1,844	41.2
Franklin County	4,557	3,369	73.9	2,302	50.5
Hamilton County	2,712	1,986	73.2	1,263	46.6
Pennsylvania					
Philadelphia County	16,616	11,991	72.2	9,583	57.7
Tennessee					
Shelby County	5,847	4,691	80.2	3,776	64.6
Texas					
Bexar County	5,774	4,476	77.5	3,350	58.0
Dallas County	16,611	13,118	79.0	10,547	63.5
Harris County	23,776	17,813	74.9	13,261	55.8
Tarrant County	5,206	4,073	78.2	3,324	63.8
Travis County	4,505	3,841	85.3	2,907	64.5
Washington					
King County	6,609	5,860	88.7	4,051	61.3

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona, Nevada, and Puerto Rico.

^a Performed ≥3 months apart during 2017.

Table A3b. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2018	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
	Total No.	No.	%	No.	%
California					
Alameda County	5,856	4,837	82.6	3,596	61.4
Los Angeles County	47,773	34,189	71.6	27,266	57.1
Orange County	6,596	4,677	70.9	3,768	57.1
Riverside County	8,767	7,469	85.2	6,004	68.5
Sacramento County	4,124	3,359	81.5	2,327	56.4
San Bernardino County	4,193	3,114	74.3	2,392	57.0
San Diego County	12,747	9,436	74.0	6,803	53.4
San Francisco County	11,912	9,911	83.2	7,208	60.5
District of Columbia	13,918	9,351	67.2	6,863	49.3
Florida					
Broward County	18,862	14,838	78.7	12,287	65.1
Duval County	5,819	4,679	80.4	3,598	61.8
Hillsborough County	6,566	5,237	79.8	4,369	66.5
Miami-Dade County	25,168	17,652	70.1	14,867	59.1
Orange County	8,157	6,283	77.0	4,962	60.8
Palm Beach County	7,641	5,432	71.1	4,449	58.2
Pinellas County	4,291	3,594	83.8	2,976	69.4
Georgia					
Cobb County	3,008	2,189	72.8	1,644	54.7
DeKalb County	8,121	6,140	75.6	4,704	57.9
Fulton County	14,524	10,817	74.5	8,469	58.3
Gwinnett County	2,730	2,064	75.6	1,642	60.1
Illinois					
Cook County	24,232	17,577	72.5	10,993	45.4
Indiana					
Marion County	4,485	3,593	80.1	2,648	59.0
Louisiana					
East Baton Rouge Parish	3,749	3,146	83.9	2,645	70.6
Orleans Parish	4,760	3,727	78.3	2,922	61.4
Maryland					
Baltimore City	9,254	6,627	71.6	4,962	53.6
Montgomery County	3,457	2,099	60.7	1,568	45.4
Prince George's County	5,535	3,890	70.3	2,857	51.6
Massachusetts					
Suffolk County	5,587	4,359	78.0	3,255	58.3
Michigan					
Wayne County	6,450	5,324	82.5	3,706	57.5
Nevada					
Clark County	8,165	6,075	74.4	4,422	54.2
New York					
Bronx County	27,127	21,476	79.2	18,506	68.2
Kings County	25,945	19,149	73.8	16,187	62.4
New York County	26,731	18,626	69.7	15,487	57.9
Queens County	15,463	10,913	70.6	9,191	59.4
North Carolina					
Mecklenburg County	5,638	4,408	78.2	3,533	62.7
Ohio					
Cuyahoga County	4,570	3,271	71.6	1,857	40.6
Franklin County	4,631	3,592	77.6	2,367	51.1
Hamilton County	2,778	2,037	73.3	1,214	43.7
Pennsylvania					
Philadelphia County	16,525	11,911	72.1	9,433	57.1
Tennessee					
Shelby County	5,922	4,775	80.6	3,878	65.5
Texas					
Bexar County	5,985	4,601	76.9	3,427	57.3
Dallas County	17,345	13,635	78.6	10,831	62.4
Harris County	24,489	18,235	74.5	13,321	54.4
Tarrant County	5,453	4,239	77.7	3,406	62.5
Travis County	4,724	4,020	85.1	3,009	63.7
Washington					
King County	6,619	5,824	88.0	4,104	62.0

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona and Puerto Rico.

^a Performed ≥3 months apart during 2018.

Table A4a. HIV viral suppression during 2017 among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2017 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		Total No.	VL of <200 copies/mL		
		No.	%	No.	%		Among persons alive at year-end 2017	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
California									
Alameda County	5,679	4,717	83.1	4,630	81.5	4,175	73.5	88.5	90.2
Los Angeles County	46,844	33,858	72.3	33,379	71.3	29,801	63.6	88.0	89.3
Orange County	6,486	4,648	71.7	4,435	68.4	4,047	62.4	87.1	91.3
Riverside County	8,243	7,151	86.8	6,889	83.6	6,358	77.1	88.9	92.3
Sacramento County	4,014	3,300	82.2	3,236	80.6	2,903	72.3	88.0	89.7
San Bernardino County	3,857	2,848	73.8	2,475	64.2	2,136	55.4	75.0	86.3
San Diego County	12,552	9,471	75.5	8,458	67.4	7,799	62.1	82.3	92.2
San Francisco County	12,070	10,136	84.0	10,037	83.2	9,283	76.9	91.6	92.5
District of Columbia	13,975	9,559	68.4	9,259	66.3	7,821	56.0	81.8	84.5
Florida									
Broward County	18,513	14,317	77.3	14,134	76.3	12,499	67.5	87.3	88.4
Duval County	5,607	4,395	78.4	3,785	67.5	3,156	56.3	71.8	83.4
Hillsborough County	6,357	4,972	78.2	4,878	76.7	4,194	66.0	84.4	86.0
Miami-Dade County	24,869	17,177	69.1	16,971	68.2	14,919	60.0	86.9	87.9
Orange County	7,885	5,896	74.8	5,756	73.0	5,065	64.2	85.9	88.0
Palm Beach County	7,545	5,283	70.0	5,145	68.2	4,459	59.1	84.4	86.7
Pinellas County	4,285	3,560	83.1	3,341	78.0	2,939	68.6	82.6	88.0
Georgia									
Cobb County	2,853	2,083	73.0	2,043	71.6	1,787	62.6	85.8	87.5
DeKalb County	7,833	5,905	75.4	5,710	72.9	4,846	61.9	82.1	84.9
Fulton County	13,748	10,068	73.2	9,797	71.3	8,209	59.7	81.5	83.8
Gwinnett County	2,578	1,937	75.1	1,893	73.4	1,648	63.9	85.1	87.1
Illinois									
Cook County	23,983	17,314	72.2	15,178	63.3	13,093	54.6	75.6	86.3
Indiana									
Marion County	4,313	3,493	81.0	3,420	79.3	2,995	69.4	85.7	87.6
Louisiana									
East Baton Rouge Parish	3,671	3,023	82.3	2,979	81.1	2,458	67.0	81.3	82.5
Orleans Parish	4,649	3,630	78.1	3,606	77.6	3,088	66.4	85.1	85.6
Maryland									
Baltimore City	9,995	6,833	68.4	6,573	65.8	5,413	54.2	79.2	82.4
Montgomery County	3,193	1,816	56.9	1,784	55.9	1,612	50.5	88.8	90.4
Prince George's County	5,678	3,816	67.2	3,729	65.7	3,228	56.9	84.6	86.6
Massachusetts									
Suffolk County	5,610	4,378	78.0	4,336	77.3	3,951	70.4	90.2	91.1
Michigan									
Wayne County	6,122	5,007	81.8	4,887	79.8	4,172	68.1	83.3	85.4

Table A4a. HIV viral suppression during 2017 among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (cont)

Area of residence	Persons alive at year-end 2017 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		Total No.	VL of <200 copies/mL		
		No.	%	No.	%		Among persons alive at year-end 2017	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
New York									
Bronx County	26,861	21,260	79.1	20,547	76.5	16,690	62.1	78.5	81.2
Kings County	25,672	18,978	73.9	18,800	73.2	16,305	63.5	85.9	86.7
New York County	26,680	18,525	69.4	18,375	68.9	16,502	61.9	89.1	89.8
Queens County	15,230	10,724	70.4	10,656	70.0	9,659	63.4	90.1	90.6
North Carolina									
Mecklenburg County	5,428	4,197	77.3	4,159	76.6	3,524	64.9	84.0	84.7
Ohio									
Cuyahoga County	4,481	2,658	59.3	2,471	55.1	2,112	47.1	79.5	85.5
Franklin County	4,557	3,369	73.9	3,231	70.9	2,854	62.6	84.7	88.3
Hamilton County	2,712	1,986	73.2	1,494	55.1	1,188	43.8	59.8	79.5
Pennsylvania									
Philadelphia County	16,616	11,991	72.2	11,829	71.2	10,275	61.8	85.7	86.9
Tennessee									
Shelby County	5,847	4,691	80.2	4,530	77.5	3,624	62.0	77.3	80.0
Texas									
Bexar County	5,774	4,476	77.5	4,414	76.4	3,754	65.0	83.9	85.0
Dallas County	16,611	13,118	79.0	12,220	73.6	10,169	61.2	77.5	83.2
Harris County	23,776	17,813	74.9	17,503	73.6	14,231	59.9	79.9	81.3
Tarrant County	5,206	4,073	78.2	4,009	77.0	3,462	66.5	85.0	86.4
Travis County	4,505	3,841	85.3	3,801	84.4	3,416	75.8	88.9	89.9
Washington									
King County	6,609	5,860	88.7	5,801	87.8	5,394	81.6	92.0	93.0

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2017 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results during 2017. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona, Nevada, and Puerto Rico.

Table A4b. HIV viral suppression during 2018 among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2018 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		Total No.	VL of <200 copies/mL		
		No.	%	No.	%		Among persons alive at year-end 2018	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
California									
Alameda County	5,856	4,837	82.6	4,771	81.5	4,342	74.1	89.8	91.0
Los Angeles County	47,773	34,189	71.6	33,441	70.0	29,992	62.8	87.7	89.7
Orange County	6,596	4,677	70.9	4,336	65.7	3,995	60.6	85.4	92.1
Riverside County	8,767	7,469	85.2	7,335	83.7	6,822	77.8	91.3	93.0
Sacramento County	4,124	3,359	81.5	3,300	80.0	3,004	72.8	89.4	91.0
San Bernardino County	4,193	3,114	74.3	2,757	65.8	2,407	57.4	77.3	87.3
San Diego County	12,747	9,436	74.0	8,659	67.9	8,070	63.3	85.5	93.2
San Francisco County	11,912	9,911	83.2	9,830	82.5	9,154	76.8	92.4	93.1
District of Columbia	13,918	9,351	67.2	9,035	64.9	7,778	55.9	83.2	86.1
Florida									
Broward County	18,862	14,838	78.7	14,428	76.5	12,867	68.2	86.7	89.2
Duval County	5,819	4,679	80.4	4,140	71.1	3,496	60.1	74.7	84.4
Hillsborough County	6,566	5,237	79.8	5,156	78.5	4,539	69.1	86.7	88.0
Miami-Dade County	25,168	17,652	70.1	17,467	69.4	15,543	61.8	88.1	89.0
Orange County	8,157	6,283	77.0	6,136	75.2	5,418	66.4	86.2	88.3
Palm Beach County	7,641	5,432	71.1	5,327	69.7	4,704	61.6	86.6	88.3
Pinellas County	4,291	3,594	83.8	3,384	78.9	3,029	70.6	84.3	89.5
Georgia									
Cobb County	3,008	2,189	72.8	2,116	70.3	1,874	62.3	85.6	88.6
DeKalb County	8,121	6,140	75.6	5,928	73.0	5,107	62.9	83.2	86.2
Fulton County	14,524	10,817	74.5	10,482	72.2	8,795	60.6	81.3	83.9
Gwinnett County	2,730	2,064	75.6	1,992	73.0	1,764	64.6	85.5	88.6
Illinois									
Cook County	24,232	17,577	72.5	15,505	64.0	13,460	55.5	76.6	86.8
Indiana									
Marion County	4,485	3,593	80.1	3,535	78.8	3,060	68.2	85.2	86.6
Louisiana									
East Baton Rouge Parish	3,749	3,146	83.9	3,098	82.6	2,676	71.4	85.1	86.4
Orleans Parish	4,760	3,727	78.3	3,691	77.5	3,210	67.4	86.1	87.0
Maryland									
Baltimore City	9,254	6,627	71.6	6,455	69.8	5,485	59.3	82.8	85.0
Montgomery County	3,457	2,099	60.7	2,067	59.8	1,873	54.2	89.2	90.6
Prince George's County	5,535	3,890	70.3	3,823	69.1	3,358	60.7	86.3	87.8
Massachusetts									
Suffolk County	5,587	4,359	78.0	4,301	77.0	3,983	71.3	91.4	92.6
Michigan									
Wayne County	6,450	5,324	82.5	5,210	80.8	4,461	69.2	83.8	85.6

Table A4b. HIV viral suppression during 2018 among persons aged ≥13 years with infection diagnosed by year-end 2017 and alive at year-end 2018, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (cont)

Area of residence	Persons alive at year-end 2018 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		Total No.	VL of <200 copies/mL		
		No.	%	No.	%		Among persons alive at year-end 2018	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
Nevada									
Clark County	8,165	6,075	74.4	5,887	72.1	5,238	64.2	86.2	89.0
New York									
Bronx County	27,127	21,476	79.2	21,329	78.6	17,903	66.0	83.4	83.9
Kings County	25,945	19,149	73.8	18,993	73.2	16,634	64.1	86.9	87.6
New York County	26,731	18,626	69.7	18,530	69.3	16,840	63.0	90.4	90.9
Queens County	15,463	10,913	70.6	10,685	69.1	9,740	63.0	89.3	91.2
North Carolina									
Mecklenburg County	5,638	4,408	78.2	4,351	77.2	3,807	67.5	86.4	87.5
Ohio									
Cuyahoga County	4,570	3,271	71.6	3,215	70.4	2,815	61.6	86.1	87.6
Franklin County	4,631	3,592	77.6	3,357	72.5	3,003	64.8	83.6	89.5
Hamilton County	2,778	2,037	73.3	1,584	57.0	1,290	46.4	63.3	81.4
Pennsylvania									
Philadelphia County	16,525	11,911	72.1	11,720	70.9	10,295	62.3	86.4	87.8
Tennessee									
Shelby County	5,922	4,775	80.6	4,687	79.1	3,805	64.3	79.7	81.2
Texas									
Bexar County	5,985	4,601	76.9	4,526	75.6	3,883	64.9	84.4	85.8
Dallas County	17,345	13,635	78.6	12,739	73.4	10,705	61.7	78.5	84.0
Harris County	24,489	18,235	74.5	17,800	72.7	15,066	61.5	82.6	84.6
Tarrant County	5,453	4,239	77.7	4,156	76.2	3,546	65.0	83.7	85.3
Travis County	4,724	4,020	85.1	3,866	81.8	3,463	73.3	86.1	89.6
Washington									
King County	6,619	5,824	88.0	5,787	87.4	5,453	82.4	93.6	94.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2018 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results during 2018. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona and Puerto Rico.

Table A5. HIV viral suppression within 6 months of diagnosis among adults and adolescents with infection diagnosed during 2017 and 2018, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

	2017			2018		
	Total diagnoses No.	VL <200 copies/mL		Total diagnoses No.	VL <200 copies/mL	
		No.	%		No.	%
California						
Alameda County	204	147	72.1	198	140	70.7
Los Angeles County	1,799	1,039	57.8	1,690	1,109	65.6
Orange County	312	180	57.7	286	172	60.1
Riverside County	273	167	61.2	257	171	66.5
Sacramento County	170	108	63.5	156	106	67.9
San Bernardino County	253	118	46.6	274	157	57.3
San Diego County	414	261	63.0	378	239	63.2
San Francisco County	244	178	73.0	237	190	80.2
District of Columbia	313	184	58.8	275	174	63.3
Florida						
Broward County	671	490	73.0	626	425	67.9
Duval County	300	167	55.7	274	168	61.3
Hillsborough County	300	197	65.7	301	221	73.4
Miami-Dade County	1,141	800	70.1	1,177	856	72.7
Orange County	461	265	57.5	464	322	69.4
Palm Beach County	289	174	60.2	284	194	68.3
Pinellas County	164	104	63.4	175	112	64.0
Georgia						
Cobb County	153	106	69.3	153	100	65.4
DeKalb County	364	214	58.8	362	220	60.8
Fulton County	618	375	60.7	605	380	62.8
Gwinnett County	173	112	64.7	151	99	65.6
Illinois						
Cook County	978	495	50.6	970	605	62.4
Indiana						
Marion County	226	125	55.3	205	126	61.5
Louisiana						
East Baton Rouge Parish	166	116	69.9	178	128	71.9
Orleans Parish	186	133	71.5	179	129	72.1
Maryland						
Baltimore City	238	142	59.7	231	157	68.0
Montgomery County	162	100	61.7	126	99	78.6
Prince George's County	309	194	62.8	308	216	70.1
Massachusetts						
Suffolk County	159	130	81.8	147	115	78.2
Michigan						
Wayne County	325	210	64.6	300	201	67.0
Nevada						
Clark County	—	—	—	450	320	71.1
New York						
Bronx County	506	348	68.8	447	346	77.4
Kings County	630	461	73.2	548	428	78.1
New York County	396	282	71.2	371	279	75.2
Queens County	431	321	74.5	411	338	82.2
North Carolina						
Mecklenburg County	269	187	69.5	242	176	72.7
Ohio						
Cuyahoga County	148	86	58.1	149	102	68.5
Franklin County	222	146	65.8	194	141	72.7
Hamilton County	187	97	51.9	184	99	53.8
Pennsylvania						
Philadelphia County	498	342	68.7	442	311	70.4
Tennessee						
Shelby County	259	154	59.5	303	175	57.8
Texas						
Bexar County	348	199	57.2	325	190	58.5
Dallas County	815	460	56.4	785	452	57.6
Harris County	1,100	590	53.6	1,199	625	52.1
Tarrant County	303	179	59.1	275	170	61.8
Travis County	210	136	64.8	189	140	74.1
Washington						
King County	210	158	75.2	292	225	77.1

Abbreviations: VL, viral load (copies/mL); CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage [footnotes only]; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of diagnosis of HIV infection during the specified year. Data are based on residence at time of diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: New Jersey and Pennsylvania (excluding Philadelphia County). Areas with incomplete lab reporting: Arizona, Nevada (2017 only), and Puerto Rico.

Table A6. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2017 and 2018 among persons aged ≥ 16 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	2017			2018		
	Persons prescribed PrEP ^a No.	Persons with PrEP indications ^b No.	PrEP coverage ^c %	Persons prescribed PrEP ^a No.	Persons with PrEP indications ^b No.	PrEP coverage ^c %
Arizona						
Maricopa County	1,804	17,228	10.5	2,860	17,228	16.6
California						
Alameda County	1,359	7,296	18.6	1,844	7,296	25.3
Los Angeles County	9,011	41,822	21.5	12,121	41,822	29.0
Orange County	1,033	10,094	10.2	1,607	10,094	15.9
Riverside County	845	11,163	7.6	1,287	11,163	11.5
Sacramento County	542	5,381	10.1	740	5,381	13.8
San Bernardino County	377	12,132	3.1	579	12,132	4.8
San Diego County	2,326	15,150	15.4	3,347	15,150	22.1
San Francisco County	6,384	11,427	55.9	8,121	11,427	71.1
District of Columbia	3,738	13,752	27.2	5,014	13,752	36.5
Florida						
Broward County	1,778	17,445	10.2	2,701	17,445	15.5
Duval County	230	8,533	2.7	365	8,533	4.3
Hillsborough County	471	12,578	3.7	751	12,578	6.0
Miami-Dade County	1,928	22,227	8.7	3,801	22,227	17.1
Orange County	929	15,027	6.2	1,711	15,027	11.4
Palm Beach County	337	7,647	4.4	555	7,647	7.3
Pinellas County	420	10,502	4.0	704	10,502	6.7
Georgia						
Cobb County	254	3,396	7.5	375	3,396	11.0
DeKalb County	844	5,921	14.3	1,159	5,921	19.6
Fulton County	1,853	11,112	16.7	2,502	11,112	22.5
Gwinnett County	299	3,374	8.9	449	3,374	13.3
Illinois						
Cook County	8,594	37,802	22.7	11,897	37,802	31.5
Indiana						
Marion County	649	7,555	8.6	836	7,555	11.1
Louisiana						
East Baton Rouge Parish	207	1,221	17.0	441	1,221	36.1
Orleans Parish	1,035	5,231	19.8	1,399	5,231	26.7
Maryland						
Baltimore City	403	6,304	6.4	548	6,304	8.7
Montgomery County	543	5,551	9.8	803	5,551	14.5
Prince George's County	435	3,640	12.0	658	3,640	18.1
Massachusetts						
Suffolk County	1,969	6,025	32.7	2,628	6,025	43.6
Michigan						
Wayne County	643	8,796	7.3	982	8,796	11.2
Nevada						
Clark County	865	8,847	9.8	1,251	8,847	14.1
New Jersey						
Essex County	400	5,134	7.8	628	5,134	12.2
Hudson County	616	4,333	14.2	867	4,333	20.0

Table A6. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2017 and 2018 among persons aged ≥ 16 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	2017			2018		
	Persons prescribed PrEP ^a No.	Persons with PrEP indications ^b No.	PrEP coverage ^c %	Persons prescribed PrEP ^a No.	Persons with PrEP indications ^b No.	PrEP coverage ^c %
New York						
Bronx County	1,309	5,957	22.0	1,998	5,957	33.5
Kings County	4,589	13,551	33.9	6,249	13,551	46.1
New York County	9,609	14,657	65.6	12,661	14,657	86.4
Queens County	2,518	8,846	28.5	3,342	8,846	37.8
North Carolina						
Mecklenburg County	583	8,499	6.9	894	8,499	10.5
Ohio						
Cuyahoga County	578	7,416	7.8	805	7,416	10.9
Franklin County	1,207	12,302	9.8	1,588	12,302	12.9
Hamilton County	265	6,568	4.0	442	6,568	6.7
Pennsylvania						
Philadelphia County	2,301	7,710	29.8	3,143	7,710	40.8
Tennessee						
Shelby County	293	7,213	4.1	469	7,213	6.5
Texas						
Bexar County	623	11,609	5.4	1,054	11,609	9.1
Dallas County	2,132	22,093	9.7	3,172	22,093	14.4
Harris County	2,512	30,800	8.2	3,987	30,800	12.9
Tarrant County	672	11,757	5.7	1,187	11,757	10.1
Travis County	2,144	10,725	20.0	3,438	10,725	32.1
Washington						
King County	4,853	11,680	41.5	6,140	11,680	52.6
Puerto Rico						
San Juan Municipio	n/a ^d	n/a ^e	n/a	n/a ^d	n/a ^e	n/a

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available; NHSS, National HIV Surveillance System [footnotes only].

^a Estimated by using 2017 and 2018 data from IQVIA pharmacy database.

^b Estimated by using 2017 and 2018 data from NHSS, National Health and Nutrition Examination Survey, and American Community Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d PrEP prescription data for the jurisdiction were unreliable and not reported.

^e Population-based data not available for this estimate.

Table S1a. Stage of disease at time of HIV diagnosis during 2017 among persons aged ≥13 years, by area of residence—41 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/μL or ≥26%)		Stage 2 (CD4=200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Gender											
Male	27,111	1,808	6.7	6,658	24.6	8,362	30.8	5,611	20.7	4,672	17.2
Female	6,437	306	4.8	1,793	27.9	1,794	27.9	1,423	22.1	1,121	17.4
Transgender male-to-female ^c	488	47	9.6	141	28.9	157	32.2	67	13.7	76	15.6
Transgender female-to-male ^c	29	5	17.2	8	27.6	11	37.9	4	13.8	1	3.4
Additional gender identity ^d	13	2	15.4	6	46.2	2	15.4	2	15.4	1	7.7
Age at diagnosis (yr)											
13–24	7,388	673	9.1	2,055	27.8	2,585	35.0	667	9.0	1,408	19.1
25–34	11,916	837	7.0	3,259	27.3	3,770	31.6	1,932	16.2	2,118	17.8
35–44	6,455	308	4.8	1,578	24.4	1,857	28.8	1,668	25.8	1,044	16.2
45–54	4,939	197	4.0	1,046	21.2	1,271	25.7	1,668	33.8	757	15.3
≥55	3,380	153	4.5	668	19.8	843	24.9	1,172	34.7	544	16.1
Race/ethnicity											
American Indian/Alaska Native	156	12	7.7	44	28.2	43	27.6	31	19.9	26	16.7
Asian	843	38	4.5	160	19.0	311	36.9	211	25.0	123	14.6
Black/African American	14,854	870	5.9	3,450	23.2	4,586	30.9	2,991	20.1	2,957	19.9
Hispanic/Latino ^e	8,677	566	6.5	2,165	25.0	2,716	31.3	1,847	21.3	1,383	15.9
Native Hawaiian/ other Pacific Islander	41	5	12.2	7	17.1	11	26.8	12	29.3	6	14.6
White	8,478	589	6.9	2,494	29.4	2,351	27.7	1,815	21.4	1,229	14.5
Multiple races	1,029	88	8.6	286	27.8	308	29.9	200	19.4	147	14.3
Transmission category^f											
Male-to-male sexual contact	22,763	1,630	7.2	5,746	25.2	7,167	31.5	4,321	19.0	3,899	17.1
Injection drug use											
Male	1,076	55	5.1	254	23.6	295	27.4	281	26.2	191	17.7
Female	901	54	6.0	259	28.8	222	24.6	183	20.3	184	20.4
Male-to-male sexual contact and injection drug use	1,191	89	7.4	347	29.1	363	30.5	177	14.9	215	18.1
Heterosexual contact ^g											
Male	2,553	81	3.2	452	17.7	691	27.1	893	35.0	437	17.1
Female	5,527	257	4.6	1,528	27.6	1,571	28.4	1,237	22.4	934	16.9
Total^h	34,078	2,168	6.4	8,606	25.3	10,326	30.3	7,107	20.9	5,871	17.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c "Transgender male-to-female" includes individuals who were assigned "male" sex at birth but have ever identified as "female" gender. "Transgender female-to-male" includes individuals who were assigned "female" sex at birth but have ever identified as "male" gender.

^d Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table S1b. Stage of disease at time of HIV diagnosis during 2017 among persons aged ≥13 years, by area of residence—41 states and the District of Columbia

Area of residence	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥ 500 cells/μL or ≥26%)		Stage 2 (CD4 = 200–499 cells/μL or 14%–25%)		Stage 3 (AIDS) (OI or CD4 < 200 cells/μL or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	649	33	5.1	162	25.0	173	26.7	141	21.7	140	21.6
Alaska	29	3	10.3	10	34.5	7	24.1	7	24.1	2	6.9
California	4,878	411	8.4	1,183	24.3	1,405	28.8	917	18.8	962	19.7
Colorado	438	24	5.5	125	28.5	159	36.3	79	18.0	51	11.6
Connecticut	274	15	5.5	72	26.3	81	29.6	65	23.7	41	15.0
Delaware	126	6	4.8	34	27.0	35	27.8	32	25.4	19	15.1
District of Columbia	313	16	5.1	86	27.5	107	34.2	39	12.5	65	20.8
Florida	4,555	124	2.7	1,331	29.2	1,425	31.3	970	21.3	705	15.5
Georgia	2,588	83	3.2	626	24.2	790	30.5	575	22.2	514	19.9
Hawaii	77	11	14.3	25	32.5	20	26.0	13	16.9	8	10.4
Illinois	1,363	67	4.9	329	24.1	432	31.7	290	21.3	245	18.0
Indiana	517	10	1.9	121	23.4	141	27.3	124	24.0	121	23.4
Iowa	126	29	23.0	20	15.9	45	35.7	27	21.4	5	4.0
Louisiana	1,002	75	7.5	266	26.5	297	29.6	229	22.9	135	13.5
Maine	29	2	6.9	10	34.5	4	13.8	11	37.9	2	6.9
Maryland	1,024	77	7.5	226	22.1	340	33.2	250	24.4	131	12.8
Massachusetts	600	36	6.0	183	30.5	188	31.3	123	20.5	70	11.7
Michigan	776	62	8.0	207	26.7	270	34.8	155	20.0	82	10.6
Minnesota	275	23	8.4	64	23.3	84	30.5	75	27.3	29	10.5
Mississippi	428	18	4.2	66	15.4	92	21.5	115	26.9	137	32.0
Missouri	504	15	3.0	130	25.8	127	25.2	84	16.7	148	29.4
Montana	31	1	3.2	12	38.7	9	29.0	6	19.4	3	9.7
Nebraska	88	6	6.8	24	27.3	32	36.4	13	14.8	13	14.8
New Hampshire	33	3	9.1	10	30.3	11	33.3	5	15.2	4	12.1
New Mexico	140	6	4.3	39	27.9	47	33.6	29	20.7	19	13.6
New York	2,731	289	10.6	682	25.0	904	33.1	571	20.9	285	10.4
North Carolina	1,299	131	10.1	283	21.8	311	23.9	265	20.4	309	23.8
North Dakota	37	0	0.0	11	29.7	14	37.8	10	27.0	2	5.4
Ohio	982	19	1.9	280	28.5	318	32.4	212	21.6	153	15.6
Oklahoma	300	26	8.7	79	26.3	86	28.7	63	21.0	46	15.3
Oregon	203	17	8.4	53	26.1	59	29.1	49	24.1	25	12.3
Rhode Island	84	8	9.5	23	27.4	25	29.8	24	28.6	4	4.8
South Carolina	709	39	5.5	156	22.0	246	34.7	183	25.8	85	12.0
South Dakota	39	0	0.0	5	12.8	16	41.0	8	20.5	10	25.6
Tennessee	720	9	1.3	192	26.7	198	27.5	122	16.9	199	27.6
Texas	4,354	328	7.5	1,040	23.9	1,303	29.9	862	19.8	821	18.9
Utah	114	5	4.4	30	26.3	40	35.1	22	19.3	17	14.9
Virginia	863	58	6.7	205	23.8	235	27.2	170	19.7	195	22.6
Washington	433	44	10.2	134	30.9	132	30.5	96	22.2	27	6.2
West Virginia	76	2	2.6	17	22.4	24	31.6	22	28.9	11	14.5
Wisconsin	261	37	14.2	53	20.3	91	34.9	50	19.2	30	11.5
Wyoming	10	0	0.0	2	20.0	3	30.0	4	40.0	1	10.0
Total	34,078	2,168	6.4	8,606	25.3	10,326	30.3	7,107	20.9	5,871	17.2

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a First positive HIV test result is within 6 months after a negative HIV test result. The diagnosis of an AIDS-defining condition or a low CD4 test result before the 6 months have elapsed does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

Table S2a. Linkage to HIV medical care after HIV diagnosis during 2017 among persons aged ≥13 years, by selected characteristics—41 states and the District of Columbia

	Total diagnoses No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Gender									
Male	27,111	21,071	77.7	6,040	22.3	23,362	86.2	3,749	13.8
Female	6,437	5,032	78.2	1,405	21.8	5,594	86.9	843	13.1
Transgender male-to-female ^a	488	375	76.8	113	23.2	425	87.1	63	12.9
Transgender female-to-male ^a	29	27	93.1	2	6.9	28	96.6	1	3.4
Additional gender identity ^b	13	12	92.3	1	7.7	13	100	0	0.0
Age at diagnosis (yr)									
13–24	7,388	5,514	74.6	1,874	25.4	6,255	84.7	1,133	15.3
25–34	11,916	9,143	76.7	2,773	23.3	10,213	85.7	1,703	14.3
35–44	6,455	5,116	79.3	1,339	20.7	5,603	86.8	852	13.2
45–54	4,939	4,002	81.0	937	19.0	4,351	88.1	588	11.9
≥55	3,380	2,742	81.1	638	18.9	3,000	88.8	380	11.2
Race/ethnicity									
American Indian/Alaska Native	156	130	83.3	26	16.7	137	87.8	19	12.2
Asian	843	684	81.1	159	18.9	742	88.0	101	12.0
Black/African American	14,854	11,180	75.3	3,674	24.7	12,521	84.3	2,333	15.7
Hispanic/Latino ^c	8,677	6,803	78.4	1,874	21.6	7,510	86.6	1,167	13.4
Native Hawaiian/other Pacific Islander	41	33	80.5	8	19.5	38	92.7	3	7.3
White	8,478	6,864	81.0	1,614	19.0	7,563	89.2	915	10.8
Multiple races	1,029	823	80.0	206	20.0	911	88.5	118	11.5
Transmission category^d									
Male-to-male sexual contact	22,763	17,766	78.0	4,997	22.0	19,672	86.4	3,091	13.6
Injection drug use									
Male	1,076	820	76.3	255	23.7	913	84.8	163	15.2
Female	901	685	75.9	217	24.1	757	84.0	144	16.0
Male-to-male sexual contact and injection drug use	1,191	889	74.6	302	25.4	1,004	84.3	186	15.7
Heterosexual contact ^e									
Male	2,553	1,959	76.7	595	23.3	2,186	85.6	367	14.4
Female	5,527	4,342	78.6	1,185	21.4	4,830	87.4	697	12.6
Total^f	34,078	26,517	77.8	7,561	22.2	29,422	86.3	4,656	13.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Hispanics/Latinos can be of any race.

^d Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

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

^f Includes persons whose infection was attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table S2b. Linkage to HIV medical care after HIV diagnosis during 2017 among persons aged ≥13 years, by area of residence—41 states and the District of Columbia

Area of residence	Total No.	≤1 month				≤3 months			
		≥1 CD4 or VL tests		No CD4 or VL test		≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%	No.	%	No.	%
Alabama	649	499	76.9	150	23.1	552	85.1	97	14.9
Alaska	29	28	96.6	1	3.4	28	96.6	1	3.4
California	4,878	3,624	74.3	1,254	25.7	4,020	82.4	858	17.6
Colorado	438	369	84.2	69	15.8	407	92.9	31	7.1
Connecticut	274	229	83.6	45	16.4	246	89.8	28	10.2
Delaware	126	108	85.7	18	14.3	112	88.9	14	11.1
District of Columbia	313	249	79.6	64	20.4	262	83.7	51	16.3
Florida	4,555	3,537	77.7	1,018	22.3	3,952	86.8	603	13.2
Georgia	2,588	1,975	76.3	613	23.7	2,164	83.6	424	16.4
Hawaii	77	66	85.7	11	14.3	70	90.9	7	9.1
Illinois	1,363	1,115	81.8	248	18.2	1,194	87.6	169	12.4
Indiana	517	349	67.5	168	32.5	420	81.2	97	18.8
Iowa	126	115	91.3	11	8.7	121	96.0	5	4.0
Louisiana	1,002	792	79.0	210	21.0	882	88.0	120	12.0
Maine	29	27	93.1	2	6.9	29	100	0	0.0
Maryland	1,024	872	85.2	152	14.8	930	90.8	94	9.2
Massachusetts	600	524	87.3	76	12.7	551	91.8	49	8.2
Michigan	776	642	82.7	134	17.3	710	91.5	66	8.5
Minnesota	275	241	87.6	34	12.4	257	93.5	18	6.5
Mississippi	428	301	70.3	127	29.7	365	85.3	63	14.7
Missouri	504	364	72.2	140	27.8	440	87.3	64	12.7
Montana	31	27	87.1	4	12.9	28	90.3	3	9.7
Nebraska	88	69	78.4	19	21.6	78	88.6	10	11.4
New Hampshire	33	27	81.8	6	18.2	31	93.9	2	6.1
New Mexico	140	117	83.6	23	16.4	126	90.0	14	10.0
New York	2,731	2,308	84.5	423	15.5	2,472	90.5	259	9.5
North Carolina	1,299	977	75.2	322	24.8	1,111	85.5	188	14.5
North Dakota	37	33	89.2	4	10.8	35	94.6	2	5.4
Ohio	982	818	83.3	164	16.7	878	89.4	104	10.6
Oklahoma	300	203	67.7	97	32.3	259	86.3	41	13.7
Oregon	203	160	78.8	43	21.2	179	88.2	24	11.8
Rhode Island	84	77	91.7	7	8.3	82	97.6	2	2.4
South Carolina	709	603	85.0	106	15.0	646	91.1	63	8.9
South Dakota	39	34	87.2	5	12.8	38	97.4	1	2.6
Tennessee	720	438	60.8	282	39.2	566	78.6	154	21.4
Texas	4,354	3,157	72.5	1,197	27.5	3,602	82.7	752	17.3
Utah	114	104	91.2	10	8.8	109	95.6	5	4.4
Virginia	863	656	76.0	207	24.0	745	86.3	118	13.7
Washington	433	397	91.7	36	8.3	414	95.6	19	4.4
West Virginia	76	59	77.6	17	22.4	67	88.2	9	11.8
Wisconsin	261	218	83.5	43	16.5	235	90.0	26	10.0
Wyoming	10	9	90.0	1	10.0	9	90.0	1	10.0
Total	34,078	26,517	77.8	7,561	22.2	29,422	86.3	4,656	13.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month or ≤3 months after HIV diagnosis. Data are based on residence at time of diagnosis. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

Table S3a. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by selected characteristics—41 states and the District of Columbia

	Persons alive at year-end 2017	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
	Total No.	No.	%	No.	%
Gender					
Male	643,720	484,576	75.3	372,139	57.8
Female	200,524	150,673	75.1	116,035	57.9
Transgender male-to-female ^b	8,164	6,784	83.1	5,372	65.8
Transgender female-to-male ^b	301	252	83.7	198	65.8
Additional gender identity ^c	127	108	85.0	88	69.3
Age at year-end 2016 (yr)					
13–24	31,243	24,106	77.2	17,720	56.7
25–34	131,682	99,592	75.6	71,787	54.5
35–44	166,076	123,495	74.4	91,956	55.4
45–54	264,667	201,955	76.3	156,544	59.1
≥55	259,168	193,245	74.6	155,825	60.1
Race/ethnicity					
American Indian/Alaska Native	2,063	1,557	75.5	1,170	56.7
Asian ^d	12,005	9,008	75.0	7,035	58.6
Black/African American	354,480	258,503	72.9	196,497	55.4
Hispanic/Latino ^e	189,388	137,811	72.8	111,169	58.7
Native Hawaiian/other Pacific Islander	692	520	75.1	379	54.8
White	253,048	200,167	79.1	150,835	59.6
Multiple races	40,502	34,761	85.8	26,694	65.9
Transmission category^f					
Male-to-male sexual contact	475,435	365,980	77.0	279,071	58.7
Injection drug use					
Male	56,641	36,399	64.3	29,096	51.4
Female	40,676	29,964	73.7	23,321	57.3
Male-to-male sexual contact and injection drug use	48,167	38,312	79.5	29,928	62.1
Heterosexual contact ^g					
Male	65,307	46,121	70.6	36,025	55.2
Female	154,080	116,382	75.5	89,324	58.0
Total^h	852,836	642,393	75.3	493,832	57.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2017 (i.e., most recent known address). Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a Performed ≥3 months apart during 2017.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure, or whose risk factor was not reported or identified, and persons of unknown race/ethnicity.

Table S3b. Receipt of HIV medical care among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by area of residence—41 states and the District of Columbia

Area of residence	Persons alive at year-end 2017 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a	
		No.	%	No.	%
Alabama	12,403	9,395	75.7	7,420	59.8
Alaska	685	609	88.9	404	59.0
California	123,480	94,542	76.6	72,233	58.5
Colorado	11,764	7,834	66.6	5,446	46.3
Connecticut	10,065	8,153	81.0	6,330	62.9
Delaware	3,162	2,530	80.0	1,852	58.6
District of Columbia	13,975	9,559	68.4	7,196	51.5
Florida	104,246	78,384	75.2	63,865	61.3
Georgia	50,224	36,770	73.2	29,198	58.1
Hawaii	2,413	1,860	77.1	1,347	55.8
Illinois	33,658	24,289	72.2	15,368	45.7
Indiana	10,597	8,176	77.2	6,050	57.1
Iowa	2,544	2,214	87.0	1,714	67.4
Louisiana	19,393	15,081	77.8	12,136	62.6
Maine	1,522	1,293	85.0	969	63.7
Maryland	31,627	22,077	69.8	15,753	49.8
Massachusetts	19,819	15,735	79.4	11,995	60.5
Michigan	14,894	12,460	83.7	9,191	61.7
Minnesota	7,993	6,250	78.2	4,121	51.6
Mississippi	8,921	6,309	70.7	4,814	54.0
Missouri	11,796	9,447	80.1	7,363	62.4
Montana	582	514	88.3	372	63.9
Nebraska	2,027	1,543	76.1	1,091	53.8
New Hampshire	1,149	912	79.4	666	58.0
New Mexico	3,253	2,590	79.6	1,953	60.0
New York	123,484	90,786	73.5	76,037	61.6
North Carolina	29,610	22,410	75.7	15,869	53.6
North Dakota	374	319	85.3	231	61.8
Ohio	20,896	14,445	69.1	10,030	48.0
Oklahoma	5,742	4,374	76.2	3,456	60.2
Oregon	6,662	5,976	89.7	4,229	63.5
Rhode Island	2,461	2,063	83.8	1,377	56.0
South Carolina	16,152	12,678	78.5	10,380	64.3
South Dakota	532	361	67.9	216	40.6
Tennessee	15,973	12,783	80.0	9,549	59.8
Texas	83,827	63,991	76.3	49,408	58.9
Utah	2,631	1,870	71.1	1,213	46.1
Virginia	21,599	14,400	66.7	10,462	48.4
Washington	12,739	11,001	86.4	7,774	61.0
West Virginia	1,723	1,249	72.5	853	49.5
Wisconsin	5,927	4,896	82.6	3,695	62.3
Wyoming	312	265	84.9	206	66.0
Total	852,836	642,393	75.3	493,832	57.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2017 (i.e., most recent known address). Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a Performed ≥ 3 months apart during 2017.

Table S4a. HIV viral suppression during 2017 among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by selected characteristics—41 states and the District of Columbia

	Persons alive at year-end 2017		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL of <200 copies/mL			
							Among persons alive at year-end 2017		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	No.	%	%	%
Gender										
Male	643,720	75.5	484,576	75.3	464,368	72.1	410,459	63.8	84.7	88.4
Female	200,524	23.5	150,673	75.1	144,903	72.3	122,524	61.1	81.3	84.6
Transgender male-to-female ^b	8,164	1.0	6,784	83.1	6,593	80.8	5,163	63.2	76.1	78.3
Transgender female-to-male ^b	301	0.0	252	83.7	234	77.7	188	62.5	74.6	80.3
Additional gender identity ^c	127	0.0	108	85.0	106	83.5	80	63.0	74.1	75.5
Age at year-end 2016 (yr)										
13–24	31,243	3.7	24,106	77.2	23,349	74.7	17,830	57.1	74.0	76.4
25–34	131,682	15.4	99,592	75.6	95,813	72.8	76,975	58.5	77.3	80.3
35–44	166,076	19.5	123,495	74.4	118,714	71.5	100,708	60.6	81.5	84.8
45–54	264,667	31.0	201,955	76.3	193,957	73.3	172,238	65.1	85.3	88.8
≥55	259,168	30.4	193,245	74.6	184,371	71.1	170,663	65.9	88.3	92.6
Race/ethnicity										
American Indian/Alaska Native	2,063	0.2	1,557	75.5	1,501	72.8	1,299	63.0	83.4	86.5
Asian ^d	12,005	1.4	9,008	75.0	8,690	72.4	8,248	68.7	91.6	94.9
Black/African American	354,480	41.6	258,503	72.9	247,124	69.7	204,509	57.7	79.1	82.8
Hispanic/Latino ^e	189,388	22.2	137,811	72.8	133,770	70.6	118,407	62.5	85.9	88.5
Native Hawaiian/other Pacific Islander	692	0.1	520	75.1	507	73.3	454	65.6	87.3	89.5
White	253,048	29.7	200,167	79.1	191,068	75.5	177,085	70.0	88.5	92.7
Multiple races	40,502	4.7	34,761	85.8	33,479	82.7	28,349	70.0	81.6	84.7
Transmission category^f										
Male-to-male sexual contact	475,435	55.7	365,980	77.0	351,491	73.9	314,269	66.1	85.9	89.4
Injection drug use										
Male	56,641	6.6	36,399	64.3	34,480	60.9	29,536	52.1	81.1	85.7
Female	40,676	4.8	29,964	73.7	28,718	70.6	23,851	58.6	79.6	83.1
Male-to-male sexual contact and injection drug use	48,167	5.6	38,312	79.5	36,575	75.9	30,602	63.5	79.9	83.7
Heterosexual contact ^g										
Male	65,307	7.7	46,121	70.6	44,046	67.4	37,867	58.0	82.1	86.0
Female	154,080	18.1	116,382	75.5	111,974	72.7	95,665	62.1	82.2	85.4
Total^h	852,836	100	642,393	75.3	616,204	72.3	538,414	63.1	83.8	87.4

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2017 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2017. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a Represents percentage of the total number for the column.

^b “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^c Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanics/Latinos can be of any race.

^f Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and include transgender persons.

^g Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^h Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure, or whose risk factor was not reported or identified, and persons of unknown race/ethnicity.

Table S4b. HIV viral suppression during 2017 among persons aged ≥13 years with infection diagnosed by year-end 2016 and alive at year-end 2017, by area of residence—41 states and the District of Columbia

Area of residence	Persons alive at year-end 2017		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL of <200 copies/mL		VL of <200 copies/mL	
							Among persons alive at year-end 2017		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	Total No.	%	%	%
Alabama	12,403	1.5	9,395	75.7	9,199	74.2	7,886	63.6	83.9	85.7
Alaska	685	0.1	609	88.9	601	87.7	541	79.0	88.8	90.0
California	123,480	14.5	94,542	76.6	90,968	73.7	82,379	66.7	87.1	90.6
Colorado	11,764	1.4	7,834	66.6	7,641	65.0	6,960	59.2	88.8	91.1
Connecticut	10,065	1.2	8,153	81.0	7,509	74.6	6,729	66.9	82.5	89.6
Delaware	3,162	0.4	2,530	80.0	2,482	78.5	2,145	67.8	84.8	86.4
District of Columbia	13,975	1.6	9,559	68.4	9,259	66.3	7,821	56.0	81.8	84.5
Florida	104,246	12.2	78,384	75.2	76,124	73.0	66,619	63.9	85.0	87.5
Georgia	50,224	5.9	36,770	73.2	35,146	70.0	29,466	58.7	80.1	83.8
Hawaii	2,413	0.3	1,860	77.1	1,813	75.1	1,668	69.1	89.7	92.0
Illinois	33,658	3.9	24,289	72.2	21,117	62.7	18,249	54.2	75.1	86.4
Indiana	10,597	1.2	8,176	77.2	7,541	71.2	6,562	61.9	80.3	87.0
Iowa	2,544	0.3	2,214	87.0	2,199	86.4	2,025	79.6	91.5	92.1
Louisiana	19,393	2.3	15,081	77.8	14,922	76.9	12,567	64.8	83.3	84.2
Maine	1,522	0.2	1,293	85.0	1,279	84.0	1,203	79.0	93.0	94.1
Maryland	31,627	3.7	22,077	69.8	21,383	67.6	18,276	57.8	82.8	85.5
Massachusetts	19,819	2.3	15,735	79.4	15,250	76.9	14,033	70.8	89.2	92.0
Michigan	14,894	1.7	12,460	83.7	12,108	81.3	10,758	72.2	86.3	88.9
Minnesota	7,993	0.9	6,250	78.2	6,056	75.8	5,547	69.4	88.8	91.6
Mississippi	8,921	1.0	6,309	70.7	5,469	61.3	4,418	49.5	70.0	80.8
Missouri	11,796	1.4	9,447	80.1	8,825	74.8	7,820	66.3	82.8	88.6
Montana	582	0.1	514	88.3	502	86.3	463	79.6	90.1	92.2
Nebraska	2,027	0.2	1,543	76.1	1,448	71.4	1,311	64.7	85.0	90.5
New Hampshire	1,149	0.1	912	79.4	882	76.8	812	70.7	89.0	92.1
New Mexico	3,253	0.4	2,590	79.6	2,538	78.0	2,238	68.8	86.4	88.2
New York	123,484	14.5	90,786	73.5	89,373	72.4	78,126	63.3	86.1	87.4
North Carolina	29,610	3.5	22,410	75.7	21,648	73.1	18,752	63.3	83.7	86.6
North Dakota	374	0.0	319	85.3	312	83.4	290	77.5	90.9	92.9
Ohio	20,896	2.5	14,445	69.1	13,198	63.2	11,449	54.8	79.3	86.7
Oklahoma	5,742	0.7	4,374	76.2	4,005	69.7	3,421	59.6	78.2	85.4
Oregon	6,662	0.8	5,976	89.7	5,689	85.4	5,256	78.9	88.0	92.4
Rhode Island	2,461	0.3	2,063	83.8	2,037	82.8	1,891	76.8	91.7	92.8
South Carolina	16,152	1.9	12,678	78.5	12,360	76.5	10,722	66.4	84.6	86.7
South Dakota	532	0.1	361	67.9	337	63.3	296	55.6	82.0	87.8
Tennessee	15,973	1.9	12,783	80.0	11,094	69.5	9,199	57.6	72.0	82.9
Texas	83,827	9.8	63,991	76.3	61,289	73.1	51,385	61.3	80.3	83.8
Utah	2,631	0.3	1,870	71.1	1,839	69.9	1,651	62.8	88.3	89.8
Virginia	21,599	2.5	14,400	66.7	13,709	63.5	11,748	54.4	81.6	85.7
Washington	12,739	1.5	11,001	86.4	10,823	85.0	10,035	78.8	91.2	92.7
West Virginia	1,723	0.2	1,249	72.5	1,160	67.3	1,020	59.2	81.7	87.9
Wisconsin	5,927	0.7	4,896	82.6	4,810	81.2	4,436	74.8	90.6	92.2
Wyoming	312	0.0	265	84.9	260	83.3	241	77.2	90.9	92.7
Total	852,836	100	642,393	75.3	616,204	72.3	538,414	63.1	83.8	87.4

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/μL) or percentage; VL, viral load (copies/mL); CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2017 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2017. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a Represents percentage of the total number for the column.

Table S4c. HIV viral suppression within 6 months of diagnosis of HIV infection among persons aged ≥ 13 years with infection diagnosed during 2017, by selected characteristics—41 states and the District of Columbia

	Total diagnoses	VL <200 copies/mL	
	No.	No.	%
Gender			
Male	27,111	16,971	62.6
Female	6,437	4,134	64.2
Transgender male-to-female ^a	488	305	62.5
Transgender female-to-male ^a	29	24	82.8
Additional gender identity ^b	13	10	76.9
Age at diagnosis (yr)			
13–24	7,388	4,415	59.8
25–34	11,916	7,488	62.8
35–44	6,455	4,181	64.8
45–54	4,939	3,239	65.6
≥55	3,380	2,121	62.8
Race/ethnicity			
American Indian/Alaska Native	156	103	66.0
Asian ^c	843	608	72.1
Black/African American	14,854	8,745	58.9
Hispanic/Latino ^d	8,677	5,640	65.0
Native Hawaiian/other Pacific Islander	41	24	58.5
White	8,478	5,645	66.6
Multiple races	1,029	679	66.0
Transmission category^e			
Male-to-male sexual contact	22,763	14,500	63.7
Injection drug use			
Male	1,076	574	53.4
Female	901	454	50.4
Male-to-male sexual contact and injection drug use	1,191	670	56.3
Heterosexual contact ^f			
Male	2,553	1,524	59.7
Female	5,527	3,681	66.6
Total^g	34,078	21,444	62.9

Abbreviations: VL, viral load (copies/mL); CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results within 6 months of diagnosis of HIV infection during 2017. Data not provided for states and associated counties that lack laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

^a “Transgender male-to-female” includes individuals who were assigned “male” sex at birth but have ever identified as “female” gender. “Transgender female-to-male” includes individuals who were assigned “female” sex at birth but have ever identified as “male” gender.

^b Additional gender identity examples include “bigender,” “gender queer,” and “two-spirit.”

^c Includes Asian/Pacific Islander legacy cases.

^d Hispanics/Latinos can be of any race.

^e Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column total. Data presented based on sex at birth and may include transgender persons.

^f Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^g Includes persons with HIV infection attributed to hemophilia, blood transfusion, or perinatal exposure or whose risk factor was not reported or identified, and persons of unknown race/ethnicity.

Table S4d. HIV viral suppression within 6 months of diagnosis of HIV infection among adults and adolescents with HIV infection diagnosed during 2017, by area of residence—41 states and the District of Columbia

	Total diagnoses	VL <200 copies/mL	
	No.	No.	%
Alabama	649	393	60.6
Alaska	29	20	69.0
California	4,878	2,976	61.0
Colorado	438	295	67.4
Connecticut	274	197	71.9
Delaware	126	89	70.6
District of Columbia	313	184	58.8
Florida	4,555	2,994	65.7
Georgia	2,588	1,523	58.8
Hawaii	77	49	63.6
Illinois	1,363	710	52.1
Indiana	517	278	53.8
Iowa	126	100	79.4
Louisiana	1,002	667	66.6
Maine	29	24	82.8
Maryland	1,024	629	61.4
Massachusetts	600	444	74.0
Michigan	776	558	71.9
Minnesota	275	212	77.1
Mississippi	428	244	57.0
Missouri	504	319	63.3
Montana	31	23	74.2
Nebraska	88	63	71.6
New Hampshire	33	28	84.8
New Mexico	140	102	72.9
New York	2,731	1,982	72.6
North Carolina	1,299	856	65.9
North Dakota	37	35	94.6
Ohio	982	579	59.0
Oklahoma	300	162	54.0
Oregon	203	133	65.5
Rhode Island	84	69	82.1
South Carolina	709	453	63.9
South Dakota	39	30	76.9
Tennessee	720	401	55.7
Texas	4,354	2,440	56.0
Utah	114	85	74.6
Virginia	863	534	61.9
Washington	433	327	75.5
West Virginia	76	45	59.2
Wisconsin	261	183	70.1
Wyoming	10	9	90.0
Total	34,078	21,444	62.9

Abbreviations: VL, viral load (copies/mL); CD4, CD4+ T-lymphocyte count (cells/ μ L) or percentage [footnotes only]; CDC, Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on residence at time of diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of diagnosis of HIV infection during 2017. Data not provided for states and associated counties that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete lab reporting: Arizona, Arkansas, Kansas, Kentucky, Nevada, Puerto Rico, and Vermont.

Table S5a. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2017 among persons aged ≥ 16 years, by selected characteristics—United States

	Persons prescribed PrEP ^a	Persons with PrEP indications ^b	PrEP coverage ^c
	No.	No.	%
Sex at birth			
Male	142,409	986,476	14.4
Female	9,910	225,301	4.4
Age (yr)			
16–24	19,120	253,709	7.5
25–34	62,163	423,548	14.7
35–44	36,022	233,252	15.4
45–54	23,549	180,400	13.1
≥55	11,549	120,868	9.6
Race/ethnicity^d			
Asian/Other	6,730	n/a	n/a
Black/African American	19,068	479,443	4.0
Hispanic/Latino	22,124	307,689	7.2
White	104,254	350,238	29.8
Total	152,403	1,211,777	12.6

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available.

^a Estimated by using 2017 data from IQVIA pharmacy database.

^b Estimated by using 2017 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, and American Community Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number of persons who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d Race/ethnicity data were only available for 37% of persons prescribed PrEP in 2017. Number prescribed PrEP and PrEP coverage for race/ethnicity reported in the table were adjusted by applying the distribution of records with known race/ethnicity to records with missing race/ethnicity.

Table S5b. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2017 among persons aged ≥ 16 years, by area of residence—United States and Puerto Rico

Area of residence	Persons prescribed PrEP ^a	Persons with PrEP indications ^b	PrEP coverage ^c
	No.	No.	%
Alabama	949	11,421	8.3
Alaska	116	2,288	5.1
Arizona	2,219	26,829	8.3
Arkansas	421	4,878	8.6
California	26,343	165,645	15.9
Colorado	2,385	25,695	9.3
Connecticut	1,574	10,741	14.7
Delaware	265	4,600	5.8
District of Columbia	3,738	13,752	27.2
Florida	7,811	122,502	6.4
Georgia	4,313	40,504	10.6
Hawaii	427	5,490	7.8
Idaho	253	3,761	6.7
Illinois	10,252	53,854	19.0
Indiana	1,498	21,441	7.0
Iowa	789	4,209	18.7
Kansas	543	5,449	10.0
Kentucky	761	13,342	5.7
Louisiana	2,347	15,231	15.4
Maine	253	3,271	7.7
Maryland	2,690	27,978	9.6
Massachusetts	5,886	24,507	24.0
Michigan	2,195	28,239	7.8
Minnesota	2,499	23,417	10.7
Mississippi	447	5,072	8.8
Missouri	1,902	19,545	9.7
Montana	118	2,629	4.5
Nebraska	359	2,597	13.8
Nevada	1,019	10,904	9.3
New Hampshire	292	2,372	12.3
New Jersey	3,227	27,723	11.6
New Mexico	572	6,598	8.7
New York	22,572	74,419	30.3
North Carolina	2,337	33,179	7.0
North Dakota	108	1,119	9.7
Ohio	3,307	40,578	8.1
Oklahoma	531	10,820	4.9
Oregon	2,035	20,255	10.0
Pennsylvania	6,042	36,617	16.5
Rhode Island	608	4,449	13.7
South Carolina	662	10,249	6.5
South Dakota	56	934	6.0
Tennessee	1,685	22,898	7.4
Texas	11,048	123,538	8.9
Utah	1,019	6,831	14.9
Vermont	198	1,491	13.3
Virginia	2,038	33,424	6.1
Washington	6,707	35,255	19.0
West Virginia	221	3,706	6.0
Wisconsin	1,402	14,121	9.9
Wyoming	47	1,411	3.3
Total^d	152,401	1,211,777	12.6
Puerto Rico	116	n/a ^e	n/a

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available; NHSS, National HIV Surveillance System [footnotes only].

^a Estimated by using 2017 data from IQVIA pharmacy database.

^b Estimated by using 2017 data from NHSS, National Health and Nutrition Examination Survey, and American Community Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d Total number prescribed PrEP includes persons from 50 states and District of Columbia and 1,317 persons with unknown ZIP codes. The total number is 2 fewer than the total number reported in Table S5a due to geography designation and rounding.

^e Population-based data not available to make the estimate.