Estimated HIV Incidence and Prevalence in the United States, 2017–2021

Report Contents

Confidential Information, Referrals, and Educational Material on HIV

CDC-INFO

- 1-800-232-4636 (in English, en Español)
- 1-888-232-6348 (TTY)
- http://wwwn.cdc.gov/dcs/ContactUs/Form

Acknowledgments

Publication of this report would not have been possible without the contributions of the state and territorial health departments and the HIV surveillance programs that provided surveillance data to CDC.

This report was prepared by the following staff and contractors of the Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, CDC: Anna Satcher Johnson, Ruiguang Song, Anna D. Baker, Zanetta Gant, Baohua Wu, Sue Reynolds, Cindy Lyles, Alex Viguerie, Paul Farnham, Angela L. Hernandez Juliet Morales, Michael Friend (editing and desktop publishing), and Azfar Siddiqi (science review).

The following are acknowledged for their contributions to the report (including graphics) and report website: Prevention Communications Branch (Content and Infrastructure Team); the Division of Communication Services, Mikaelyn Benson, Deirdre Launt, Meredith Newlove, Cesar Rivera (Design Team).

Last Reviewed: May 23, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Commentary

Commentary

Report Contents

Other Reports

The primary goal of the *Ending the HIV Epidemic in the U.S.* (EHE) initiative is to reduce the annual number of new HIV infections by 75% by 2025 and by at least 90% by 2030 [1]. A key objective to reaching this goal is to increase the percentage of persons with HIV who have received an HIV diagnosis and are aware of their infection, also referred to as knowledge of status [1]. Persons who are aware of their HIV infection can be linked to care and receive HIV treatment to achieve sustained viral suppression, which can reduce morbidity and mortality and prevent HIV transmission to HIV-negative partners through sex [2]. Estimates of (1) HIV incidence, (2) prevalence (persons living with diagnosed or undiagnosed HIV infection), and (3) percentage of diagnosed infections among persons living with HIV (knowledge of status) are essential to determining whether prevention program efforts are reducing the annual number of new HIV infections (incidence) and achieving prevention outcomes.

Incidence measures the number of infections during a specified time (e.g., year). These estimates can be used to assess changes in characteristics of persons with newly acquired HIV infection. Diagnoses refer to persons who may have been infected years before diagnosis.

Prevalence refers to the number of persons living with HIV disease at a given time regardless of the time of infection or whether the person has received a diagnosis. Prevalence and the percentage of diagnosed infections among persons living with HIV reflect the number of persons in need of care and treatment services for HIV infection.

To produce the HIV incidence and prevalence estimates in this report, we used the result of the first CD4+ T-lymphocyte (CD4) test after HIV diagnosis and an estimation method based on a CD4 depletion model (referred to hereafter as the "CD4 model") [3–6]. The first CD4 test results after HIV diagnosis are routinely collected by all jurisdictions as part of the National HIV Surveillance System (NHSS). See Technical Notes for additional information.

Report Changes

- This report is presented in a new, digital format that includes figures based on charts and maps from the "Estimated HIV Incidence and Prevalence in the United States" slide set.
- The monthly distribution of diagnoses reported to the Centers for Disease Control and Prevention (CDC) during 2020 and 2021 were adjusted to account for the impact of COVID-19 on HIV testing and diagnosis in the United States [7–13]. Estimates for years 2020 and 2021 should be interpreted with caution. See Technical Notes for additional information.

- A Special Focus Profiles section is included to highlight 3 key populations: (1) Gay, Bisexual, and Other Men Who Have Sex with Men (MSM), (2) Persons Who Inject Drugs (PWID), and (3) Persons Aged 13–24 Years.

Impact of COVID-19 Pandemic

Data for the year 2020 should be interpreted with caution due to the negative impact of the COVID-19 pandemic on access to HIV testing, care-related services, and case surveillance activities in state/local jurisdictions. The overall number of HIV diagnoses in the United States in 2020 (30,335) was 17% lower than in 2019. The decline in 2020 was larger than the average yearly decline (2%–3%) observed during 2017–2019 [8]. The underdiagnosis of HIV in 2020 was likely due to disruptions in HIV testing and clinical care services, patient hesitancy in accessing clinical services, and shortages in HIV testing reagents/materials [9–13]. To emphasize the need for caution, tables presenting data for the year 2020 include "COVID-19 pandemic" in the title, and the 2020 column is highlighted in tables that provide multiple years of data. Assessments of trends in HIV diagnoses, deaths, and prevalence that include data for the year 2020 should be interpreted with caution.

During 2021, the overall number of HIV diagnoses in the United States (35,769) partially rebounded and was 18% higher than in 2020 [14]. The partial rebound in the number of HIV diagnoses may be due to the identification and reporting of HIV cases missed in 2020. The ongoing impact of the pandemic on HIV testing, diagnoses, and treatment has varied by jurisdiction, with some recovering more slowly than others. In 2021, some jurisdictions' levels of HIV testing, diagnoses, and treatment remained below pre-COVID–19 levels [15]. Increasing testing efforts and innovative strategies to reach persons with undiagnosed HIV are needed to offset this diagnosis gap. Assessments of trends in estimated HIV incidence and prevalence that include data for the year 2020 should be interpreted with caution.

Last Reviewed: May 18, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: National Profile

Report Contents

Other Reports

All numbers and percentages in this report (except numbers of diagnosed cases) are estimated by using the CD4 model and are based on diagnosed cases with vital status information reported to CDC. Relative standard errors (RSEs; see Technical Notes for additional information) were calculated for estimated numbers and percentages and are presented in the tables. All highlights in this section are based on reliable estimates (i.e., RSE of <30%).

Estimates of annual HIV infections (incidence) and persons living with HIV infection (prevalence) are based on NHSS data from the 50 states and the District of Columbia (and for jurisdiction-level estimates only, Puerto Rico; Tables 6 and 13) for persons aged ≥13 years.

Estimates of persons living with HIV infection in the United States include persons with diagnosed or undiagnosed HIV infection. Numbers of persons aged >13 years living with diagnosed infection (prevalence of diagnosed infection; Tables 8–13) are reported numbers, not estimates.

Differences in estimated numbers of HIV infection (Tables 1–6) and estimated percentages of diagnosed infections among persons living with HIV (Tables 8–13) for 2021, compared with 2017, were assessed by the z test. Differences were deemed statistically significant when $P<0.05$. If estimates for 2017 and 2021 did not differ significantly, we report that no changes were detected.

Important notes

- Please use caution when interpreting the estimated numbers of HIV infection for American Indian/Alaska Native persons: the RSEs are ≥30% for most of the data years presented. The estimated numbers for Native Hawaiian/other Pacific Islander persons are not presented for some years because the RSEs of the estimates are >50%.
- Incidence and prevalence estimates for the following jurisdictions should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. Idaho does not have laws. Areas with incomplete reporting are New Jersey, Pennsylvania (excluding Philadelphia), and Puerto Rico.
- Prevalence estimates for the year 2021 are preliminary and based on death data received by CDC as of December 2022. Prevalence trends through 2021 should be interpreted with caution. The following jurisdictions had incomplete reporting of deaths for the year 2021 and should be interpreted with caution: Mississippi and West Virginia.

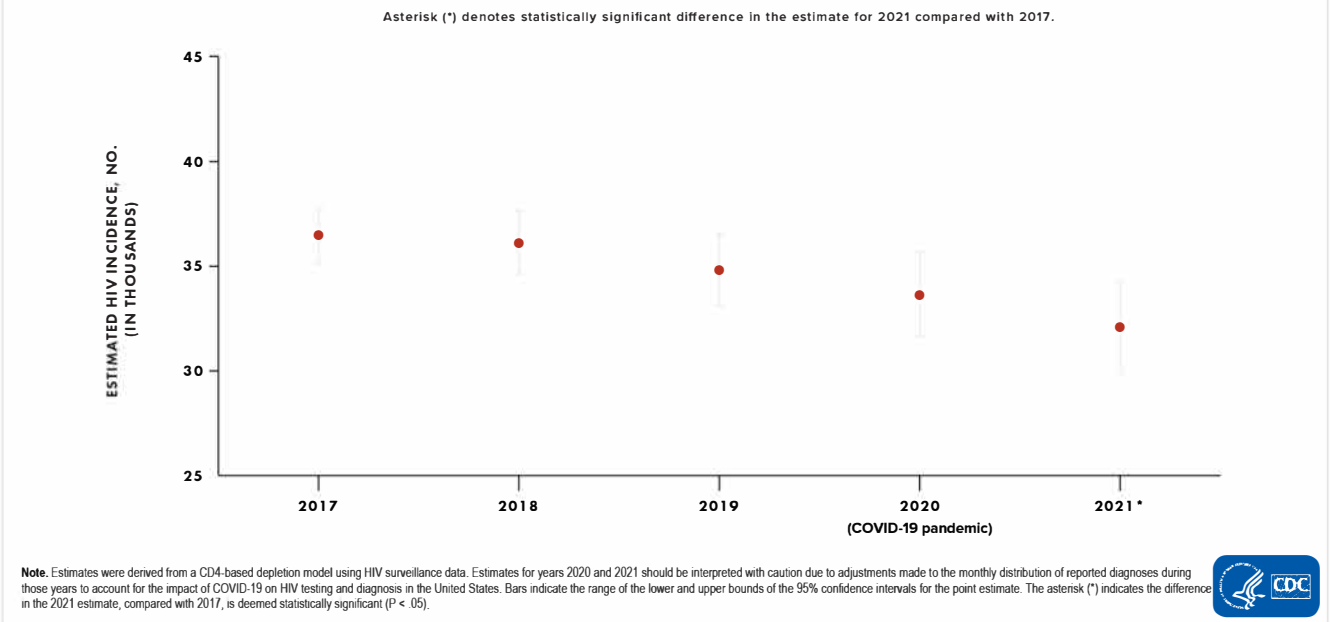
- Readers who are reviewing jurisdiction-level incidence (Tables 6 and A1) and prevalence estimates (Tables 13 and A2) to guide prevention efforts should refer to diagnosis data presented in the 2021 *HIV Surveillance Report* if estimates for the jurisdiction of interest have RSEs≥30% [14].
- Please read all titles and footnotes carefully to ensure a complete understanding of the displayed data.
- HIV incidence and prevalence estimates for years presented in this report may change in the future when more diagnoses data have been reported to CDC. The most recent years' estimates are the most unreliable due to delays in reporting of diagnoses to CDC.
- All rates are per 100,000 population.
- See Technical Notes for information on data specifications.

National and state-level incidence and prevalence data for years 2010–2021 are available via NCHHSTP AtlasPlus. NCHHSTP AtlasPlus is an interactive tool that gives users the ability to create customized tables, maps, and charts by using CDC's surveillance data on HIV, viral hepatitis, sexually transmitted diseases, and tuberculosis. AtlasPlus also provides access to indicators on social determinants of health.

HIV Incidence

In the United States, in 2021, compared with 2017, HIV incidence decreased (12%) among persons aged ≥13 years (Table 1). In 2021, the estimated number of HIV infections was 32,100; the rate was 11.5 (Figure 1).

FIGURE 1
Estimated HIV incidence among persons aged ≥13 years, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Bars indicate the range of the lower and upper bounds of the 95% confidence intervals for the point estimate. The asterisk (*) indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$).

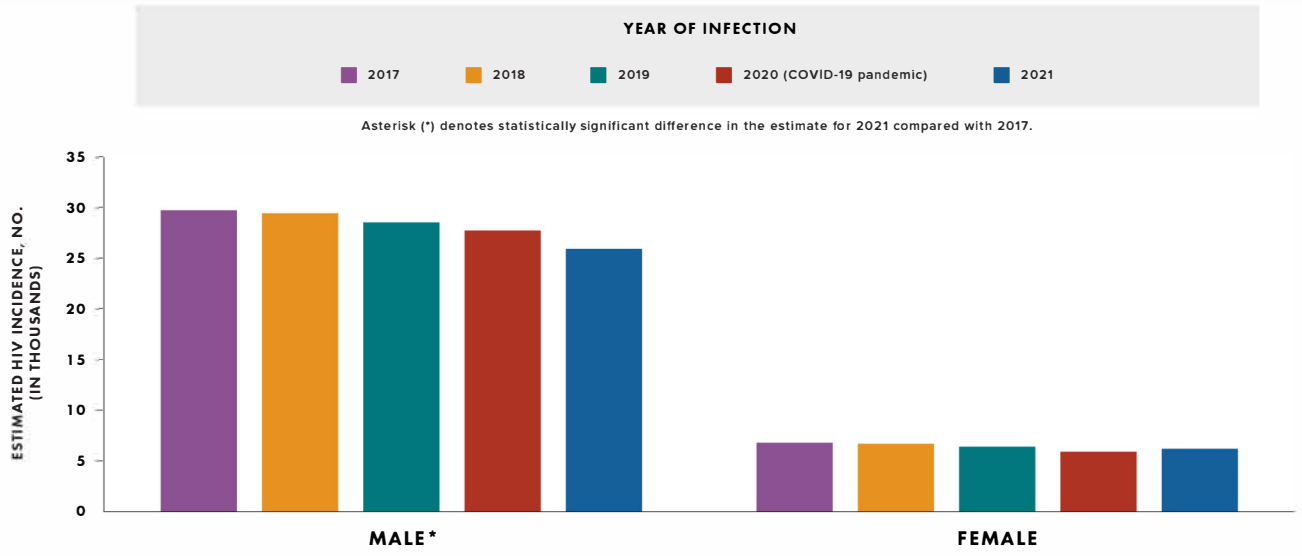
The annual numbers of HIV infections in 2021, compared with 2017, among persons aged ≥13 years were as follows: Assigned sex at birth (ASAB) (Figure 2)

- Increased—none
- Decreased—males
- No change detected—females

In 2021, the rates, by assigned sex at birth, were as follows: males, 18.8; females, 4.4.

FIGURE 2

Estimated HIV incidence among persons aged ≥ 13 years, by assigned sex at birth, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

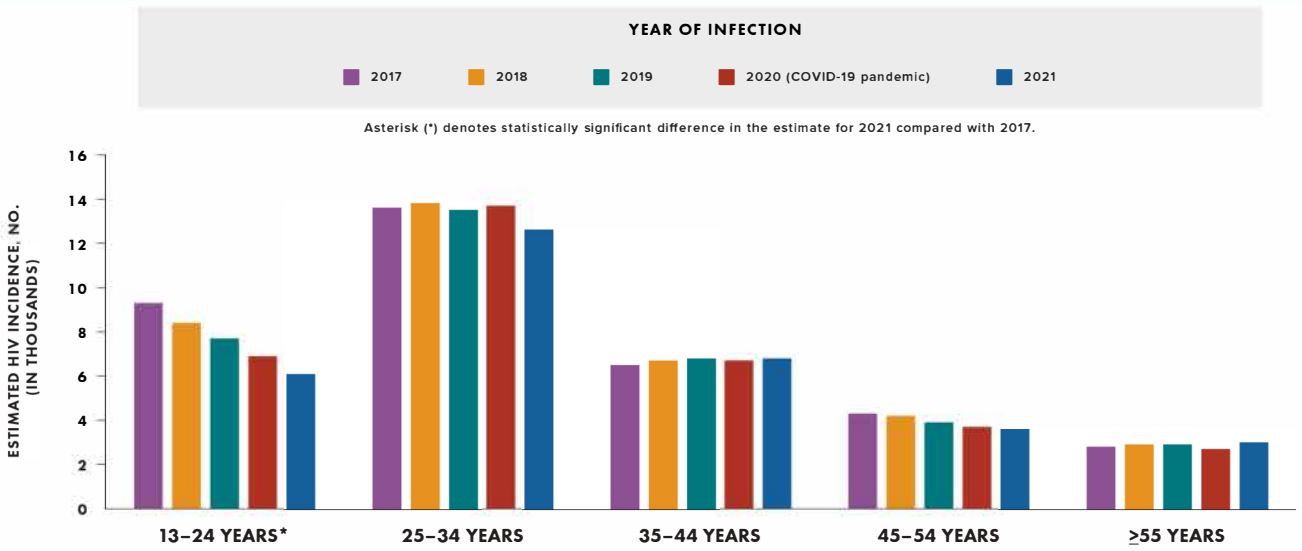
Age group (Figure 3)

- Increased—none
- Decreased—persons aged 13–24
- No change detected—persons aged 25–34, 35–44, 45–54, and ≥55 years

In 2021, the highest rates were for persons aged 25–34 (27.7), followed by persons aged 35–44 years (15.6).

FIGURE 3

Estimated HIV incidence among persons aged ≥ 13 years, by age at infection, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, was deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

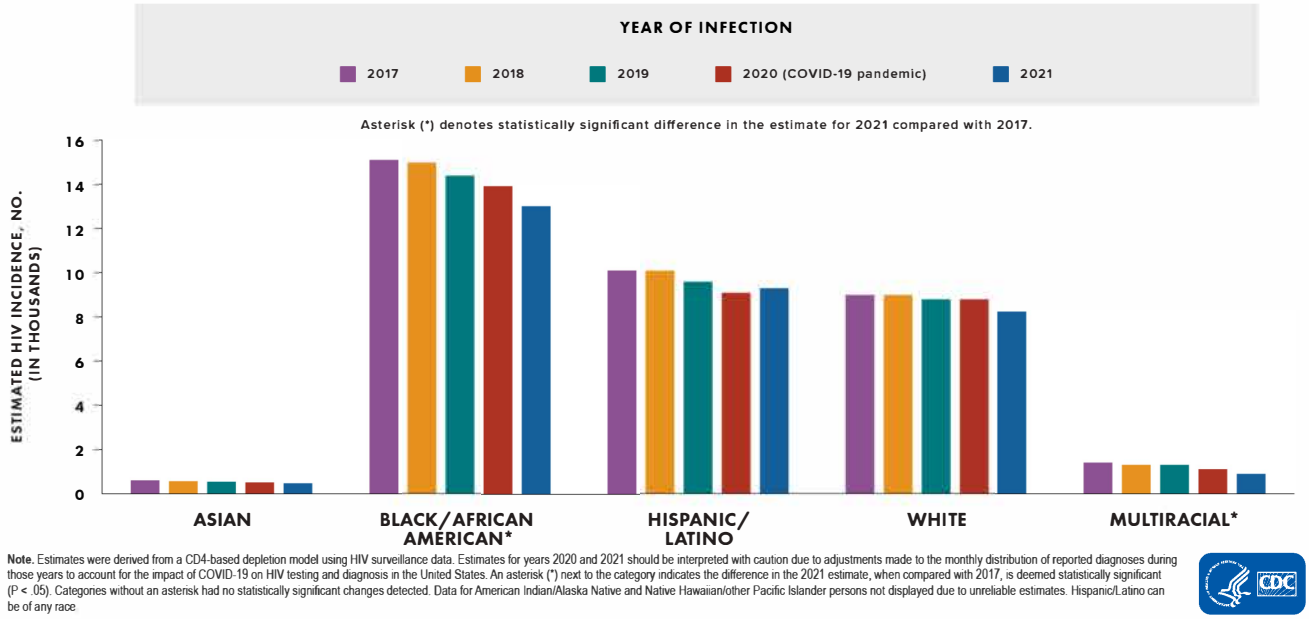
Race/ethnicity (Figure 4)

- Increased—none
- Decreased—Black/African American and multiracial persons
- No change detected—American Indian/Alaska Native, Asian, Hispanic/Latino, Native Hawaiian/other Pacific Islander, and White persons

In 2021, the highest rates were among Black/African American (37.3), Hispanic/Latino (18.9), and multiracial (17.0) persons.

FIGURE 4

Estimated HIV incidence among persons aged ≥13 years, by race/ethnicity, 2017–2021—United States

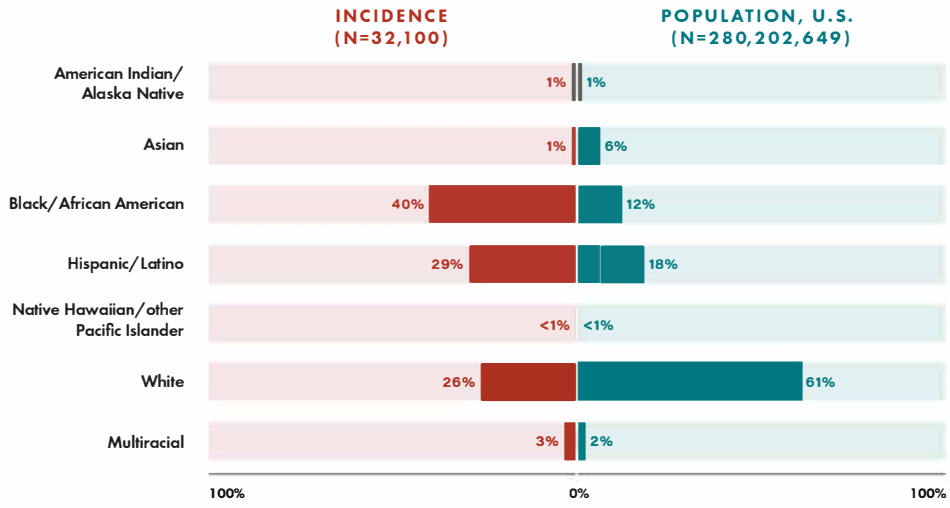


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, when compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Data for American Indian/Alaska Native and Native Hawaiian/other Pacific Islander persons not displayed due to unreliable estimates. Hispanic/Latino can be of any race

In 2021, Black/African American persons made up approximately 12% of the population of the United States but accounted for 40% of new HIV infections. White persons made up 61% of the population of the United States but accounted for 26% of new HIV infections. Hispanic/Latino persons made up 18% of the population of the United States but accounted for 29% of HIV infections (Figure 5).

FIGURE 5

Estimated HIV incidence and population among persons aged ≥ 13 years, by race/ethnicity, 2021—United States



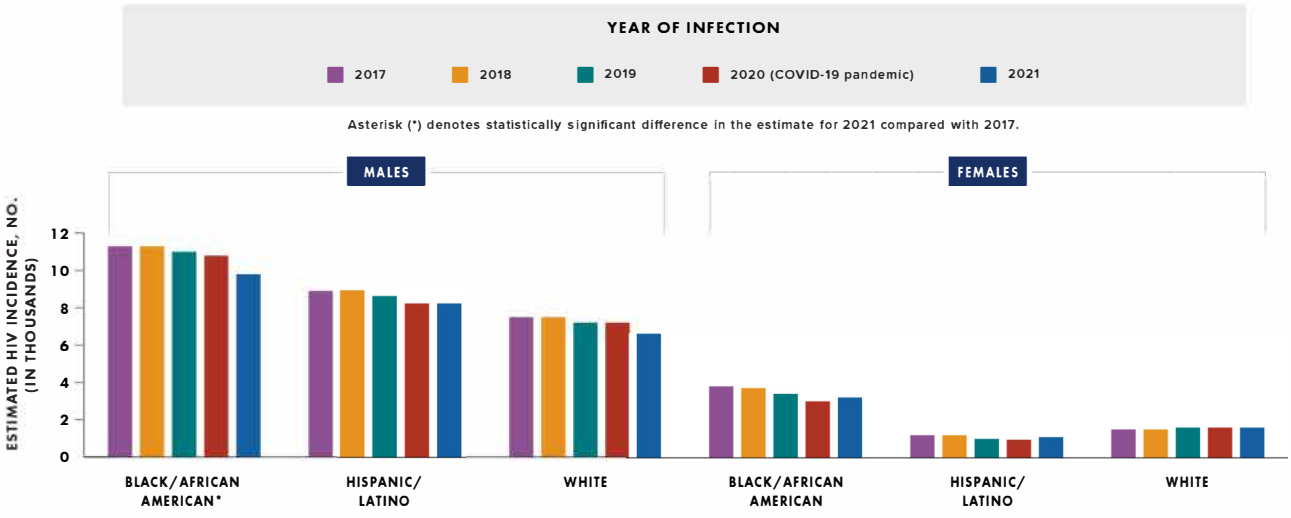
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino can be of any race.

ASAB and race/ethnicity (Figure 6)

- Among males:
  - Increased—none
  - Decreased—Black/African American
  - No change detected—Hispanic/Latino and White
- Among females:
  - Increased—none
  - Decreased—none
  - No change detected—Black/African American, Hispanic/Latino, and White

FIGURE 6

Estimated HIV incidence among persons aged ≥ 13 years, by assigned sex at birth and race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race.

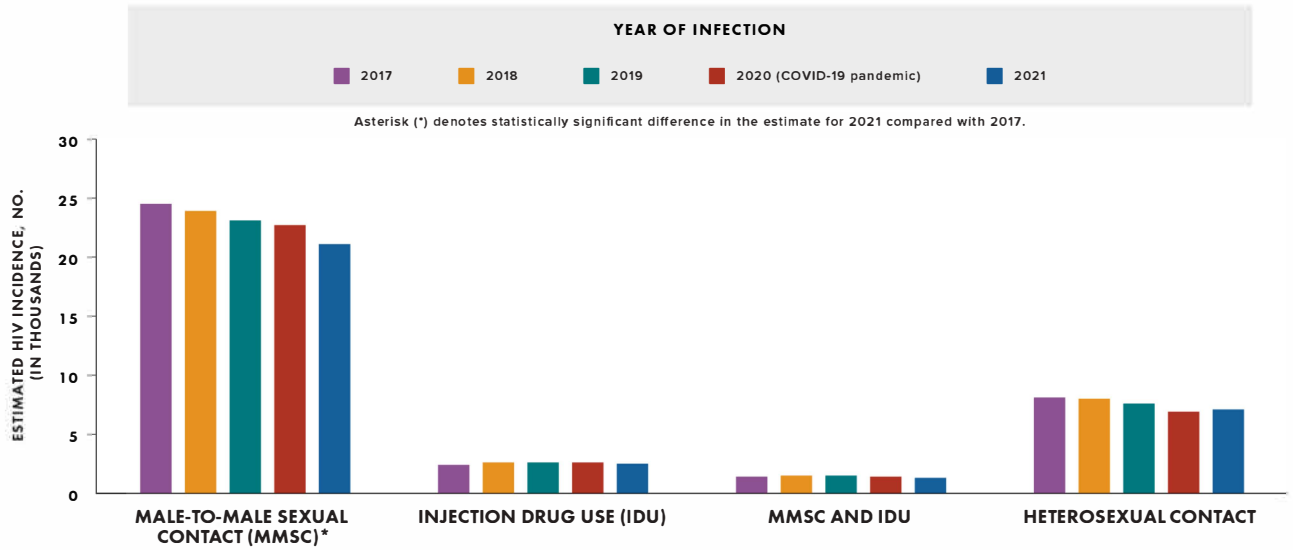
ASAB and transmission category (Figures 7, 8, and 9)

- Overall (Figure 7)
  - Increased—none
  - Decreased—infections attributed to male-to-male sexual contact (MMSC)
  - No change detected—infections attributed to injection drug use (IDU), MMSC and IDU, or heterosexual contact
- Male (Figure 8)
  - Increased—none
  - Decreased—MMSC
  - No change detected—all other transmission categories
- Female (Figure 9)
  - Increased—none
  - Decreased—none
  - No change detected—all transmission categories

In 2021, the largest percentages were, for males, infections attributed to MMSC (81%) and, for females, infections attributed to heterosexual contact (82%).

FIGURE 7

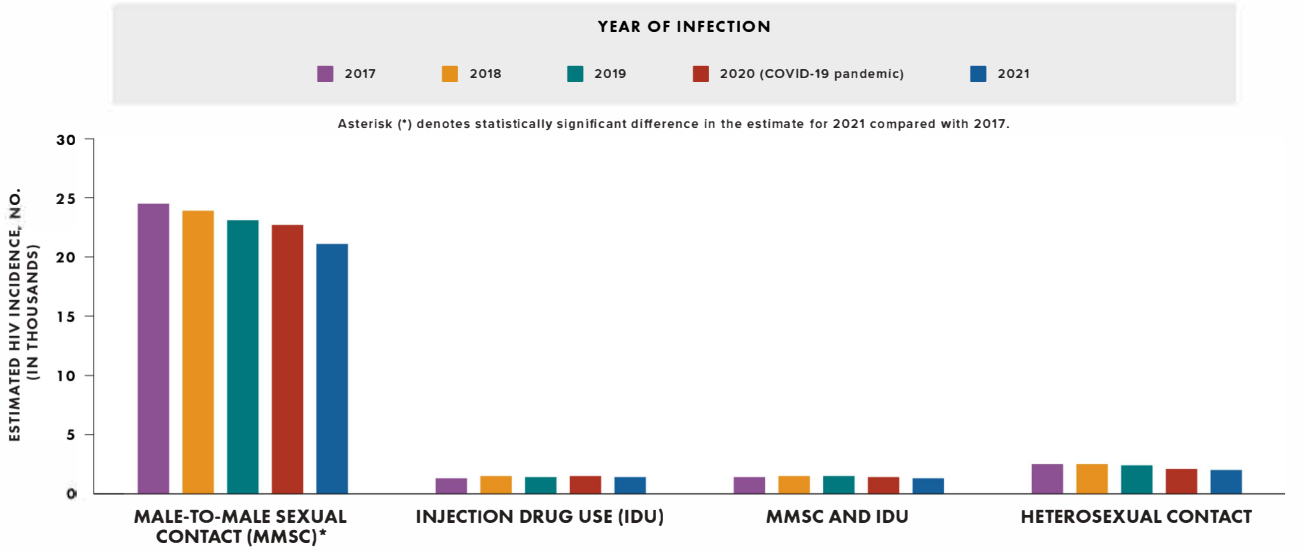
Estimated HIV incidence among persons aged ≥ 13 years, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

FIGURE 8

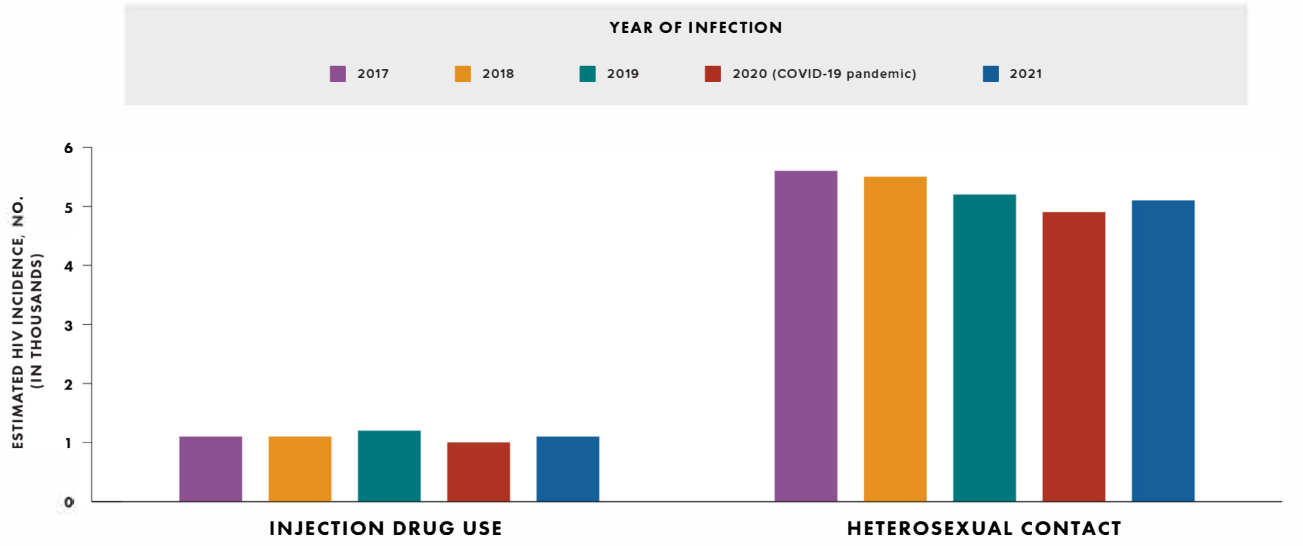
Estimated HIV incidence among males aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

FIGURE 9

Estimated HIV incidence among females aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

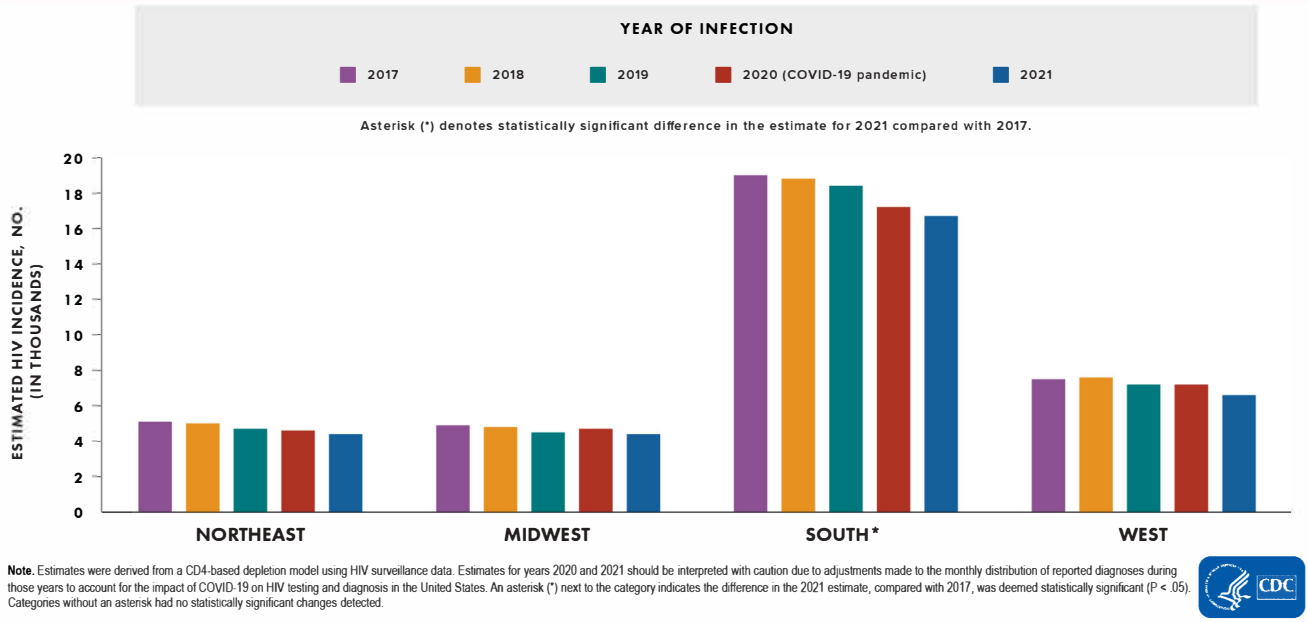
Region (Figure 10)

- Increased—none
- Decreased—South
- No change detected—Northeast, Midwest, and West

In 2021, the rates, by region, were as follows: South, 15.6; West, 10.0; Northeast, 9.0; Midwest, 7.6.

FIGURE 10

Estimated HIV incidence among persons aged ≥ 13 years, by region, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Area of residence (Figure 11)

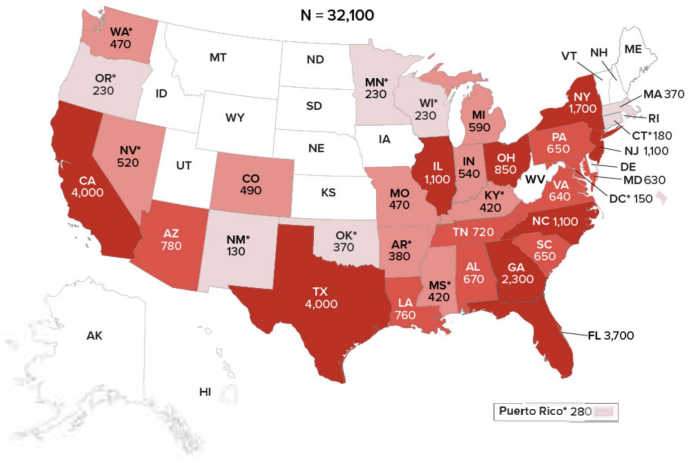
- Increased—none
- Decreased—none
- No change detected—all

In 2021, estimates in 22 areas were statistically reliable (RSEs of <30%; see Technical Notes for more information on the RSE). In 2021, compared to 2017, no changes were detected in the estimated annual number of HIV infections for all areas with reliable estimates (RSEs of <30%) (Table 6).

To guide prevention efforts, states with estimates with RSEs≥30% should refer to HIV diagnosis data in the 2021 HIV Surveillance Report. (See also the section Reliability in Technical Notes.)

FIGURE 11

Estimated HIV incidence among persons aged ≥ 13 years, by area of residence, 2021—United States and Puerto Rico



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates should be interpreted with caution for jurisdictions that do not have laws requiring complete reporting of laboratory data or has incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey, Pennsylvania, and Puerto Rico. An asterisk (*) represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution.

HIV Incidence by Race/Ethnicity

Black/African American Persons

In 2021, HIV incidence among Black/African American persons in the United States was as follows:

- Decreased when compared with 2017 (Table 2)
- Accounted for 40% of all HIV infections (Table 1)
- 62% were attributed to MMSC, and 32% were attributed to heterosexual contact (Table 2)
- Rate for Black/African American persons (37.3) was more than 7 times the rate for White persons (4.8) (Table 1)
- Rate for Black/African American males (59.2) was more than 3 times the rate for Black/African American females (17.5) (Table 2)
- Among all Black/African American persons, males accounted for 75% of HIV infections, most of which (83%) were attributed to MMSC

Black/African American males

Among Black/African American males, the annual number of HIV infections in 2021, compared with 2017, decreased overall. Annual numbers of HIV infections in 2021, compared with 2017, were as follows:

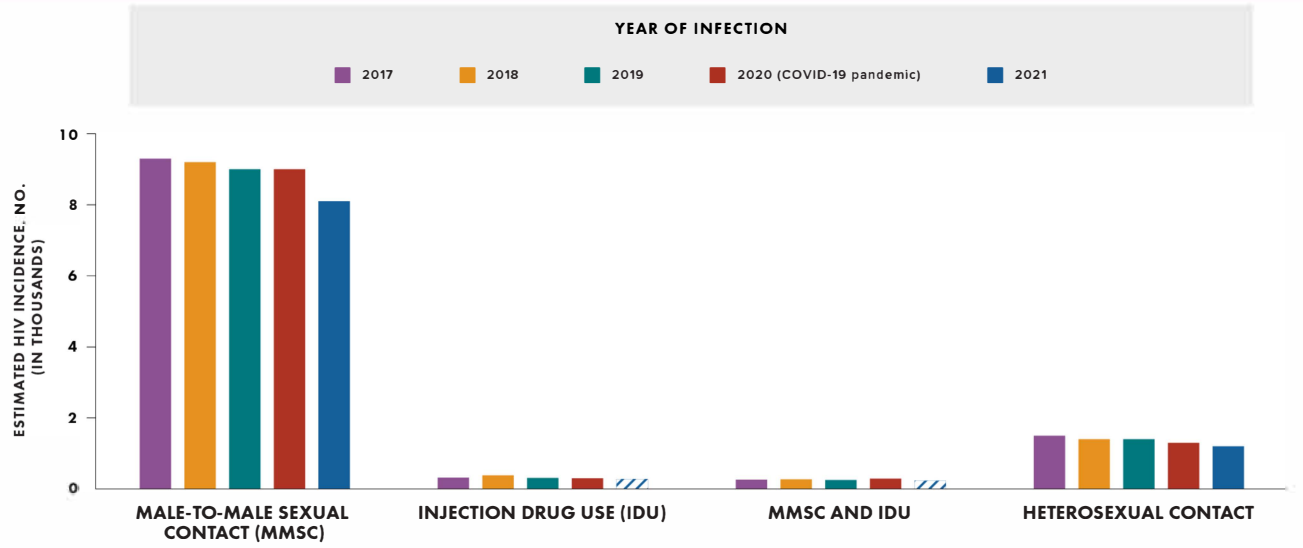
- Age at infection—decreased: aged 13–24 years; no change detected: all other age groups (Table 2)
- Transmission category—no change detected: MMSC and heterosexual contact (Figure 12 and Table 2)
  Note. Estimates for all other transmission category groups had RSEs of 30%–50% (interpret with caution).

In 2021, among Black/African American males, the percentages and rates of HIV infections were as follows:

- Largest percentages: aged 25–34 (41%) and 13–24 years (29%) (Table 2)
- Percentage of Black/African American males aged 13–24 years (29%) was higher than Hispanic/Latino (18%) and White (11%) males in the same age group (Table 3)
- Rate for Black/African American males (59.2) (Table 2) was nearly 8 times the rate for White (7.8) (Table 4) and nearly twice the rate for Hispanic/Latino males (32.9) (Table 3)

FIGURE 12

Estimated HIV incidence among Black/African American males aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Black/African American females

Among Black/African American females, no changes were detected in the annual number of HIV infections in 2021, compared with 2017. Annual numbers of HIV infections in 2021, compared with 2017, were as follows:

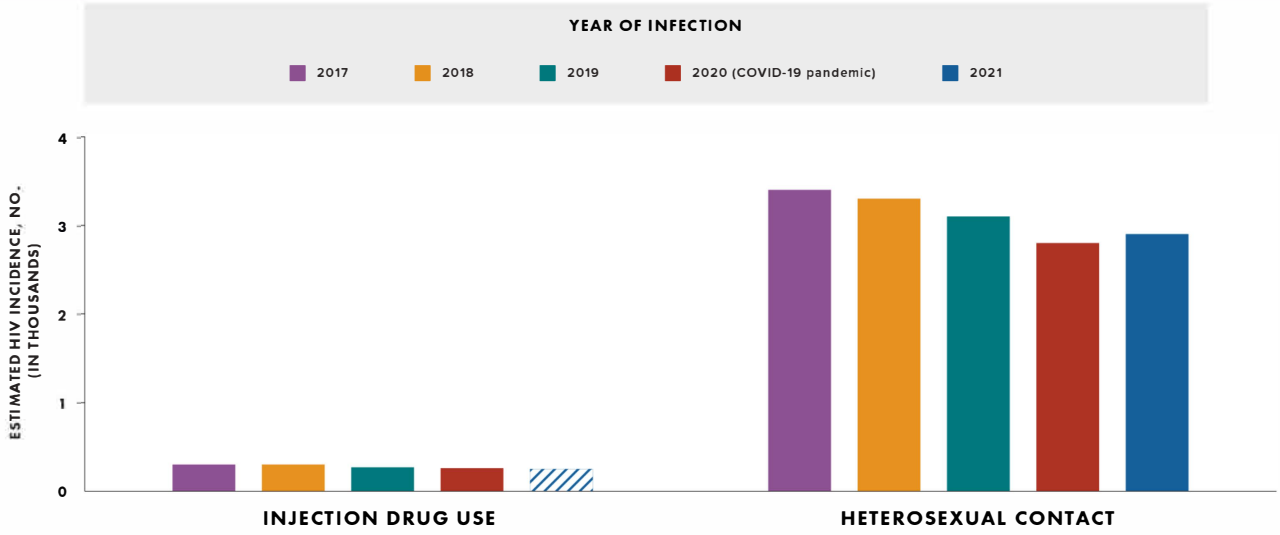
- Age at infection—no change detected: all age groups
- Transmission category—no change detected: heterosexual contact; injection drug use category had RSE of 30%–50% (interpret with caution) (Figure 13 and Table 2)

In 2021, among Black/African American females, the percentages and rates of HIV infections were as follows:

- Largest percentage: 91% of infections were attributed to heterosexual contact
  Rate for Black/African American females (17.5) (Table 2) was 10 times the rate for White (1.8) (Table 4) and 4 times the rate for Hispanic/Latino females (4.6) (Table 3)

FIGURE 13

Estimated HIV incidence among Black/African American females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Hispanic/Latino Persons

In 2021, HIV incidence among Hispanic/Latino persons was as follows:

- No change was detected when compared with 2017 (Table 3)
- Accounted for 29% of all HIV infections (Table 1)
- 77% were attributed to MMSC, and 16% were attributed to heterosexual contact (Table 3)
- Rate for Hispanic/Latino persons (18.9) was 4 times the rate for White persons (4.8) (Table 1)
- Rate for Hispanic/Latino males (32.9) was 7 times the rate for Hispanic/Latino females (4.6) (Table 3)
- Among all Hispanic/Latino persons, males accounted for 89% of HIV infections, most of which (88%) were attributed to MMSC.

Hispanic/Latino males

Among Hispanic/Latino males, no change was detected in the annual number of HIV infections in 2021, compared with 2017. Annual numbers of HIV infections in 2021, compared with 2017, were as follows:

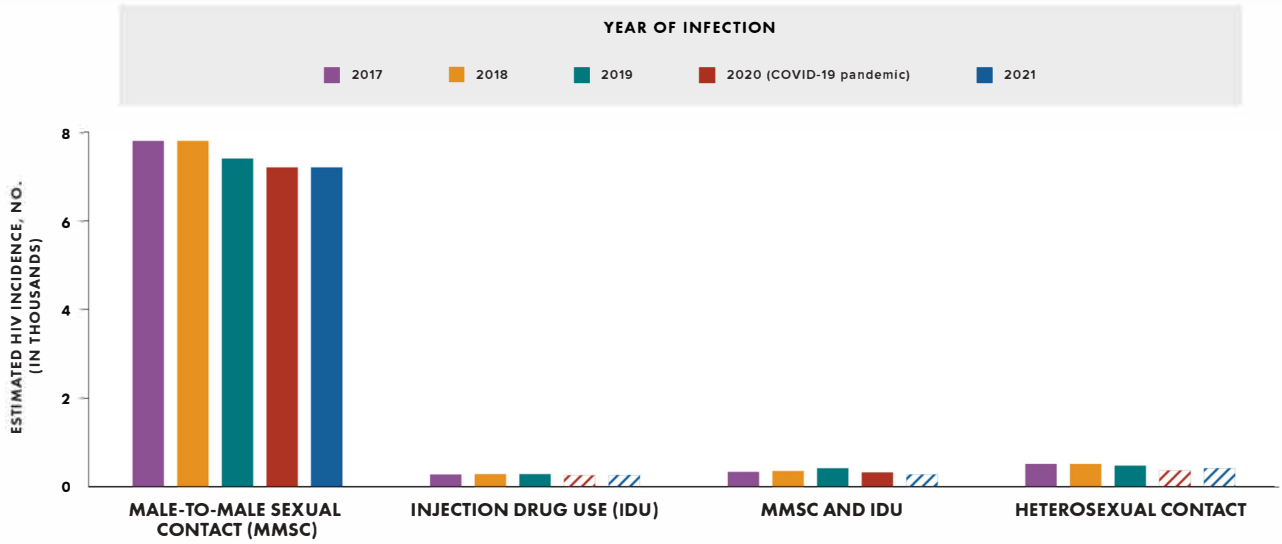
- Age at infection—decreased: aged 13–24 years; no change detected: all other age groups (except aged ≥55 years, which had an RSE 30%–50% and should be interpreted with caution) (Table 3)
- Transmission category—no change detected: MMSC (Figure 14 and Table 3)
  Note. Estimates for all other age and transmission category groups had RSEs of 30%–50% (interpret with caution).

In 2021, among Hispanic/Latino males, the percentages and rates of HIV infections were as follows:

- Largest percentages: aged 25–34 (44%) and 35–44 years (22%) (Table 3)
- Rate for Hispanic/Latino males (32.9) (Table 3) was 4 times that for White males (7.8)

FIGURE 14

Estimated HIV incidence among Hispanic/Latino males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino persons can be of any race. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Hispanic/Latino females

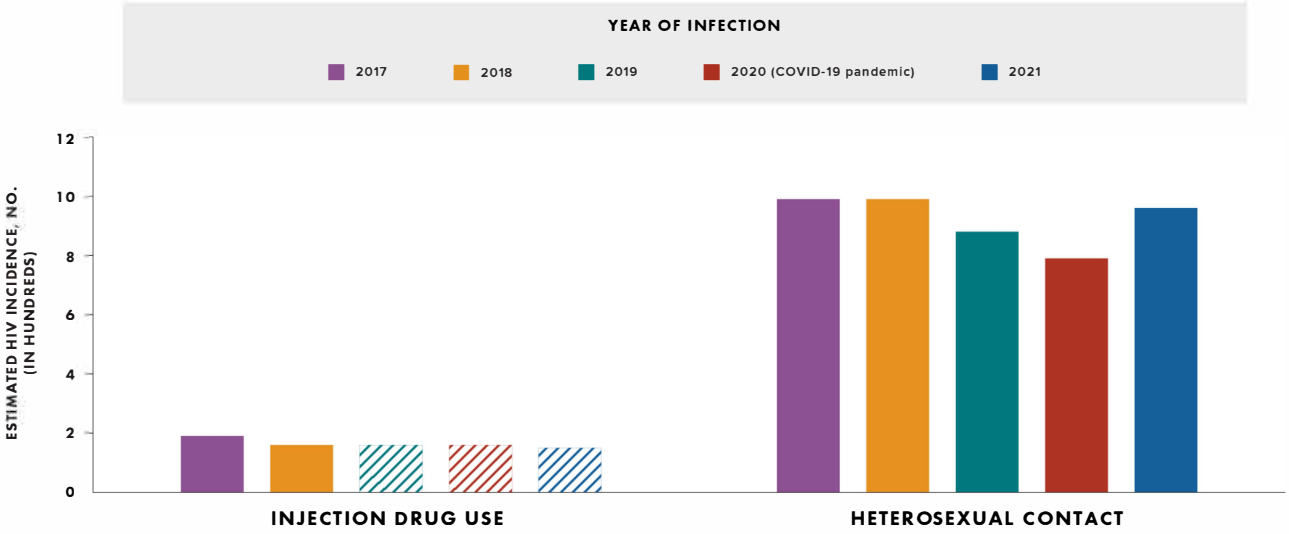
Among Hispanic/Latino females, no change was detected in the annual number of HIV infections in 2021, compared with 2017. Annual numbers of HIV infections in 2021, compared with 2017, were as follows:

- Age at infection—estimates for all other age and transmission category groups had RSEs of 30%–50% (interpret with caution) (Table 3)
- Transmission category—no change detected: heterosexual contact; injection drug use category had RSE of 30%–50% (interpret with caution) (Figure 15 and Table 3)

In 2021, among Hispanic/Latino females, most HIV infections (87%) were attributed to heterosexual contact (Table 3).

FIGURE 15

Estimated HIV incidence among Hispanic/Latino females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino persons can be of any race. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

White Persons

In 2021, HIV incidence among White persons was as follows:

- No change was detected when compared with 2017 (Table 4)
- Accounted for 26% of all HIV infections (Table 1)
- 59% were attributed to MMSC, and 16% were attributed to heterosexual contact (Table 4)
- Among White persons, males accounted for 80% of HIV infections, most of which (73%) were attributed to MMSC (Table 4)

White males

Among White males, no change was detected in the annual number of HIV infections in 2021, compared with 2017. Annual numbers of HIV infections in 2021, compared with 2017, were as follows:

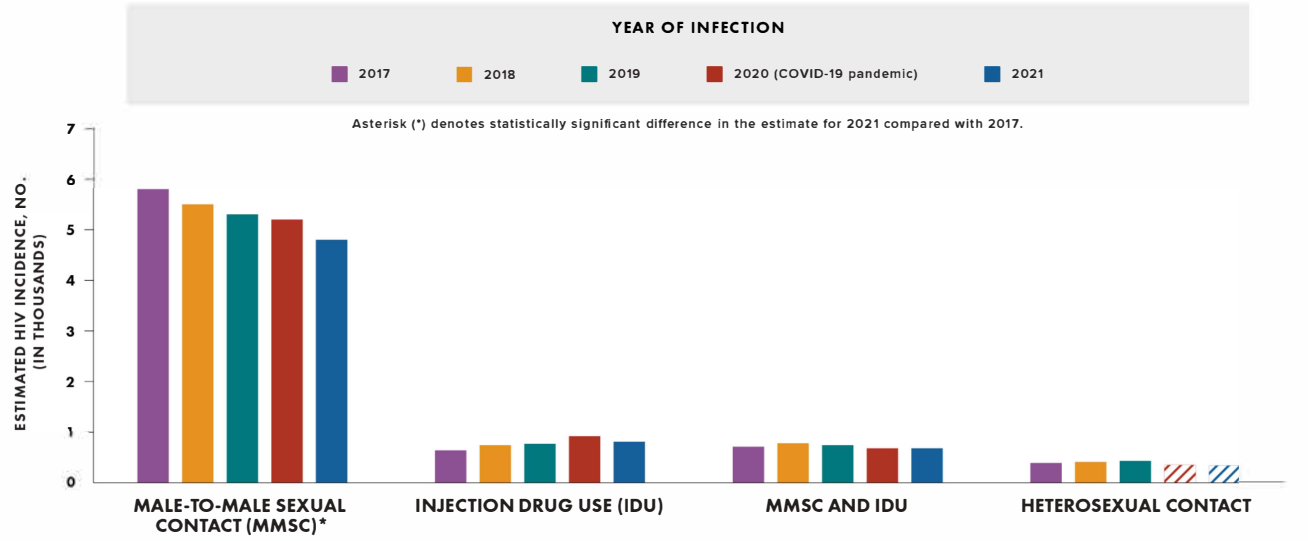
- Age at infection
  - Decreased—aged 13–24 years (Table 4)
  - No change detected—all other age groups (Figure 16 and Table 4)
- Transmission category
  - Decreased—MMSC
  - No change detected—IDU, MMSC *and* IDU

Note. Estimates for heterosexual contact category had RSEs of 30%–50% (interpret with caution).

In 2021, among White males, the largest percentages of HIV infections, by age group, were among those aged 25–34 (39%) and 35–44 years (24%) (Table 4).

FIGURE 16

Estimated HIV incidence among White males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates that the difference in the estimate for 2021 from the 2017 estimate was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution.

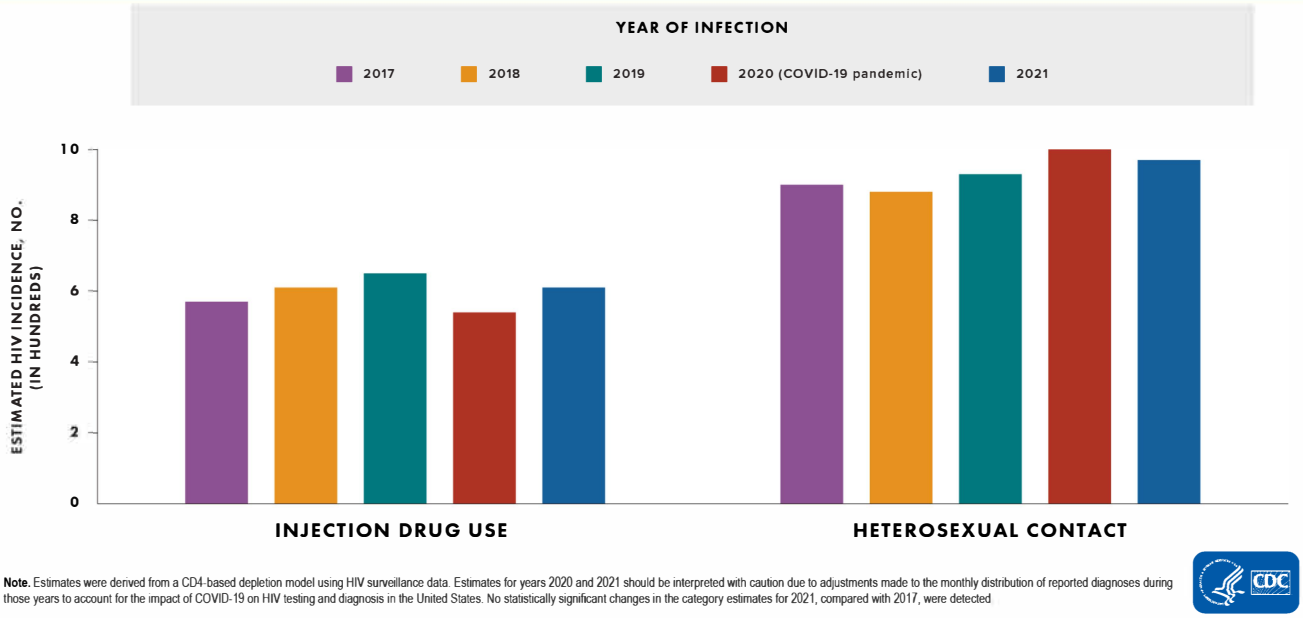
White females

Among White females, no change was detected in the annual number of HIV infections in 2021, compared with 2017. The annual numbers of HIV infections in 2021, compared with 2017, were as follows:

- Age at infection—no change detected: aged 25–34 and 35–44 years (Table 4)
- Transmission category—no change detected: all transmission categories (Figure 17 and Table 4)
  Note. Estimates for all other age groups had RSEs of 30%–50% (interpret with caution).

In 2021, among White females, most HIV infections (61%) were attributed to heterosexual contact (Table 4).

FIGURE 17
Estimated HIV incidence among White females aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Prevalence: Persons Aged ≥13 Years Living with Diagnosed or Undiagnosed HIV Infection

At year-end 2021, an estimated 1,212,400 persons aged ≥ 13 years were living with HIV infection (prevalence), including 1,058,900 (87.3%) persons with diagnosed HIV; the prevalence rate was 432.7 (Table 8). The percentage of diagnosed infections among persons living with HIV at year-end 2021 increased compared with 2017 (Table 8). The prevalence of HIV in the U.S. population among persons aged ≥13 years was 0.4%.

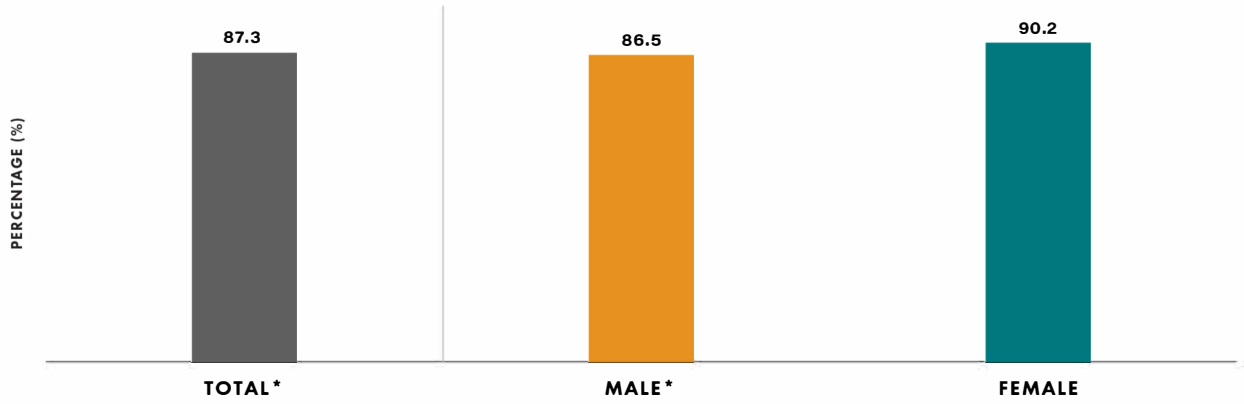
At year-end 2021, estimated numbers and percentages of HIV prevalence (diagnosed and undiagnosed infection) among persons ≥13 years were as follows:

ASAB

- Prevalence rates and percentages—males (686.1; 78%); females (186.9; 22%) (Table 7)
- Percentage of diagnosed HIV infection was smaller among males (86.5%) than among females (90.2%) (Figure 18 and Table 8)
- Percentage of persons living with diagnosed HIV infection in 2021, compared with 2017, increased among males, but no change was detected among females (Table 8)

FIGURE 18

Diagnosed infection among persons aged ≥13 years living with HIV infection, by assigned sex at birth, 2021—United States



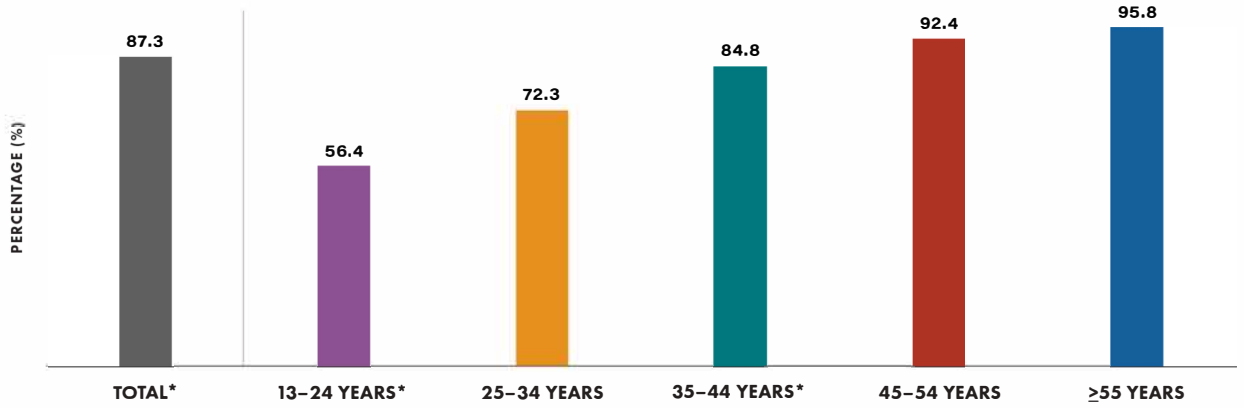
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

Age Group

- Highest prevalence rates—aged 45–54 years (646.4), followed by persons aged 35–44 years (549.1) (Table 7)
- Smallest percentages of diagnosed infection: aged 13–24 years (56.4%), followed by persons aged 25–34 years (72.3%) (Figure 19 and Table 8)
- Percentages of persons living with diagnosed HIV infection in 2021, compared with 2017, were as follows (Table 8):
  - Increased—aged 13–24 years
  - Decreased—aged 35–44 years
  - No change detected—aged 25–34, 44–54, and ≥55 years

FIGURE 19

Diagnosed infection among persons aged ≥ 13 years living with HIV infection, by age, 2021—United States

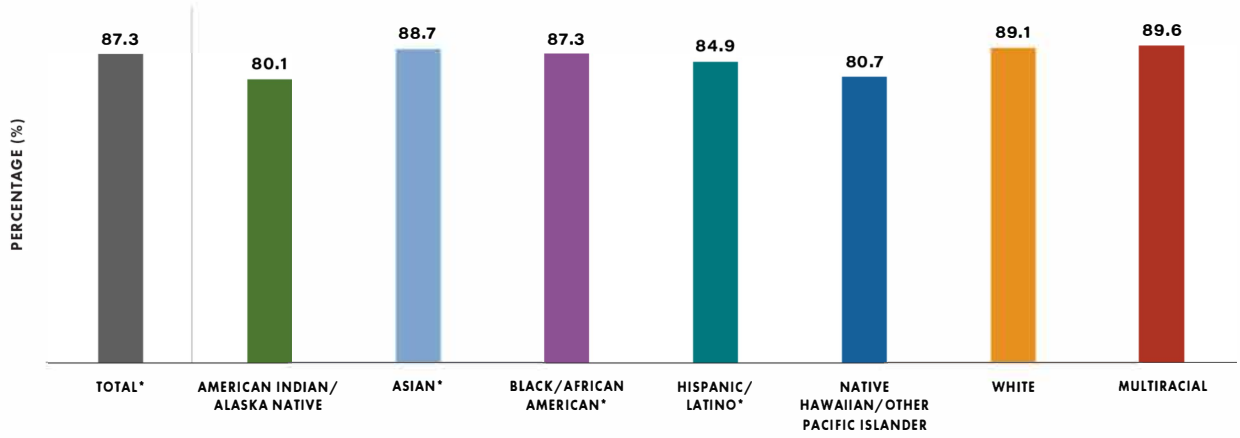


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

Race/Ethnicity

- Highest prevalence rates—Black/African American persons (1,404.2), followed by multiracial persons (1,168.6) (Table 7)
- Smallest percentages of diagnosed HIV infection: American Indian/Alaska Native persons (80.1) followed by Native Hawaiian/other Pacific Islander persons (80.7) (Figure 20 and Table 8)
- Percentages of persons living with diagnosed HIV infection in 2021, compared with 2017, were as follows (Table 8):
  - Increased—Asian, Black/African American, and Hispanic/Latino persons
  - Decreased—none
  - No change detected—American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, White, and multiracial persons

FIGURE 20
Diagnosed infection among persons aged ≥ 13 years living with HIV infection, by race/ethnicity, 2021—United States



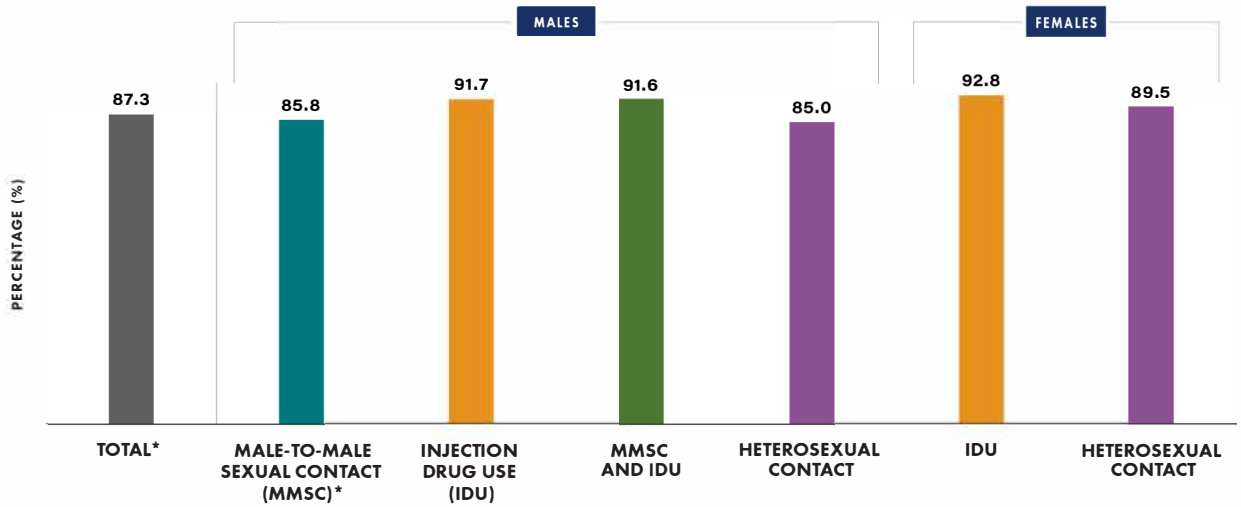
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. Hispanic/Latino persons can be of any race. An astensk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

ASAB and Transmission Category

- Among males, smallest percentage with diagnosed infection: males with infection attributed to heterosexual contact (85.0%) (Figure 21 and Table 8)
- Among females, smallest percentages with diagnosed infection: females with infection attributed to heterosexual contact (89.5%) and MMSC (85.8%) (Figure 21 and Table 8)
- Percentages of persons living with diagnosed HIV infection in 2021, compared with 2017, were as follows (Table 8):
  - Increased—males: MMSC
  - Decreased—none
  - No change detected—all other transmission categories among males; all transmission categories among females

FIGURE 21

Diagnosed infection among persons aged ≥13 years living with HIV infection, by transmission category, 2021—United States



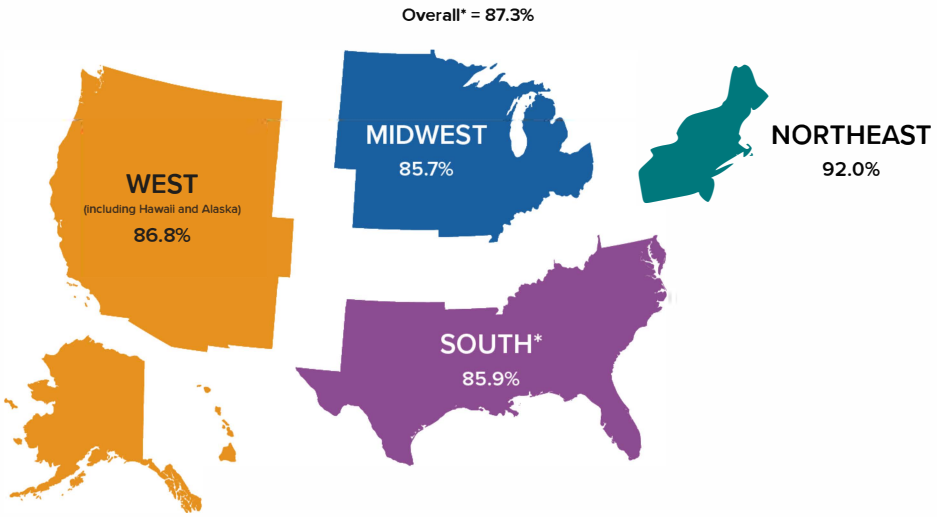
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Region

- Highest prevalence rates—South (530.7), followed by the Northeast (512.4) (Table 8)
- Smallest percentages of diagnosed HIV infection: Midwest (85.7), followed by the South (85.9) (Table 8)
- Percentages of persons living with diagnosed HIV infection in 2021, compared with 2017, increased in the South, but no changes were detected in any other regions (Table 8)

FIGURE 22

Diagnosed infection among persons aged ≥13 years living with HIV infection, by region, 2021—United States



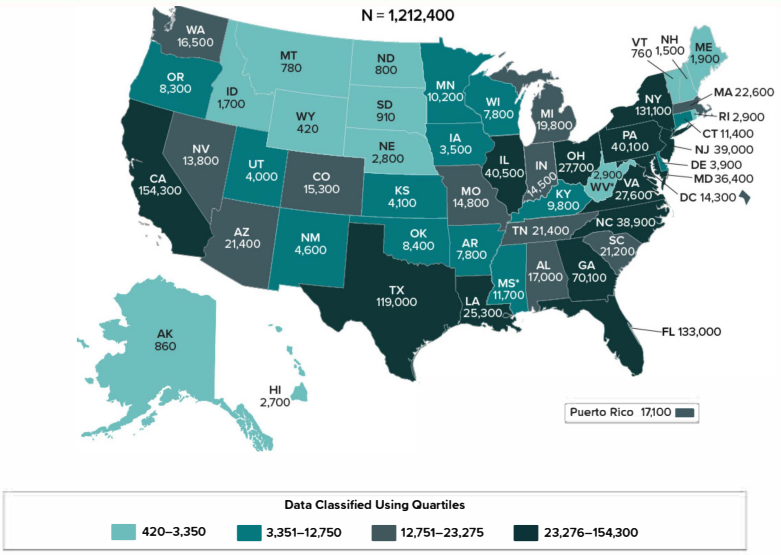
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Area of Residence

- Percentages of diagnosed HIV infection ranged from 66.5% in North Dakota to 94.2% in the District of Columbia (Table 13)
- Five areas accounted for 50% of persons living with HIV infection (diagnosed or undiagnosed): California, Florida, Georgia, New York, and Texas (Figure 23 and Table 13)
- Among persons living with HIV infection (diagnosed or undiagnosed), 13 areas had the lowest percentages of persons with diagnosed HIV (≤84.2%): Arkansas, Georgia, Idaho, Indiana, Kansas, Kentucky, Mississippi, Nevada, North Dakota, Oklahoma, South Dakota, Texas, and West Virginia (Figure 24)
- Percentage of persons living with diagnosed HIV infection in 2021, compared with 2017: no changes were detected in any areas

FIGURE 23

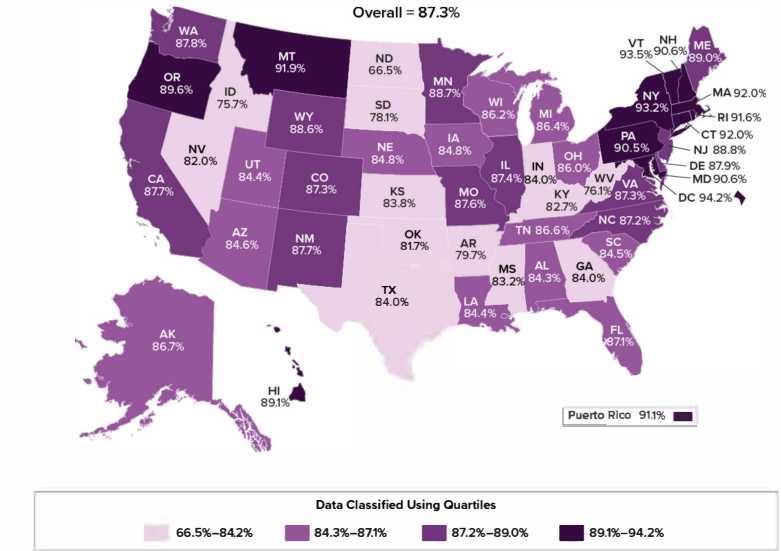
Estimated HIV prevalence among persons aged ≥13 years, by area of residence, 2021—United States and Puerto Rico



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Data for the year 2021 are preliminary and based on deaths reported to CDC as of December 2022. An asterisk (*) indicates incomplete reporting of deaths to CDC for the year 2021.

FIGURE 24

Percentages of diagnosed infection among persons aged ≥13 years living with HIV infection, by area of residence, 2021—United States and Puerto Rico



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed and undiagnosed infection. Data for the year 2021 are preliminary and based on deaths reported to CDC as of December 2022.

HIV Prevalence by Race/Ethnicity

Black/African American Persons

At year-end 2021, an estimated 487,500 Black/African American persons aged ≥13 years were living with HIV infection, including 425,519 (87.3%) living with diagnosed HIV (Table 9).

HIV prevalence among Black/African American persons was as follows:

- Of the estimated number of all persons living with diagnosed or undiagnosed HIV infection, 40% were Black/African American, 69% of whom were male (Table 9)
- Prevalence rate for Black/African American persons (1,404.2) (Table 9) was 7 times the rate for White persons (199.3) (Table 11)
- Prevalence rate for Black/African American males (2,027.0) was 2.5 times that for Black/African American females (840.2) (Table 9)
- Percentage (87.3%) living with diagnosed HIV infection in 2021, compared with 2017, increased (Table 9)

Black/African American males (Table 9)

At year-end 2021, an estimated 334,400 Black/African American males were living with HIV infection (85.7% of whom were living with diagnosed HIV), and HIV prevalence was as follows:

- Age—largest percentage: aged ≥55 years (32%)
- Transmission category—largest percentage: MMSC (69%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—overall, among persons aged 13–24 years, and among males with infection attributed to MMSC
- Decreased—none
- No change detected—all other age groups and transmission categories

Black/African American females (Table 9)

At year-end 2021, an estimated 153,100 Black/African American females were living with HIV infection (90.7% of whom were living with diagnosed HIV), and HIV prevalence was as follows:

- Age—largest percentage: aged ≥55 years (40%)
- Transmission category—largest percentage: heterosexual contact (84%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—none
- Decreased—none
- No change detected—all age groups and transmission categories

Hispanic/Latino Persons

At year-end 2021, an estimated 297,200 Hispanic/Latino persons aged ≥13 years were living with HIV infection, including 252,342 (84.9%) who were living with diagnosed HIV (Table 10).

HIV prevalence among Hispanic/Latino persons was as follows:

- Of the estimated number of persons living with diagnosed or undiagnosed HIV infection, 25% were Hispanic/Latino (Table 8), of whom 83% were male (Table 10)
- Prevalence rate for Hispanic/Latino persons (603.0) (Table 10) was 3 times the rate for White persons (199.3) (Table 8)

- Prevalence rate for Hispanic/Latino males (995.8) was 5 times that for Hispanic/Latino females (201.8) (Table 10)
- Percentage living with diagnosed HIV infection in 2021, compared with 2017, increased (Table 10)

Hispanic/Latino males (Table 10)

At year-end 2021, an estimated 248,000 Hispanic/Latino males were living with HIV infection (83.8% of whom were living with diagnosed HIV), and HIV prevalence was as follows:

- Age—largest percentage: aged ≥55 years (29%) (Table 10)
- Transmission category—largest percentage: MMSC (78%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—overall, aged 13–24 years, and MMSC
- Decreased—none
- No change detected—all other age groups and transmission categories

Hispanic/Latino females (Table 10)

At year-end 2021, an estimated 49,200 Hispanic/Latino females were living with HIV infection (90.6% of whom were living with diagnosed HIV), and HIV prevalence was as follows:

- Age—largest percentage: aged ≥55 years (41%)
- Transmission category—largest percentage: heterosexual contact (79%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—none
- Decreased—none
- No change detected—all age groups and transmission categories

White Persons

At year-end 2021, an estimated 342,000 White persons aged ≥13 years were living with HIV infection, including 304,871 (89.1%) who were living with diagnosed HIV (Table 11).

HIV prevalence among White persons was as follows:

- Of the estimated number of persons living with diagnosed or undiagnosed HIV infection, 28% were White (Table 8), 87% of whom were male (Table 11)
- Prevalence rate—199.3 (Table 11)
- Prevalence rate for White males (349.8) was 7 times that for White females (52.5) (Table 11)
- Percentage living with diagnosed HIV infection in 2021, compared with 2017: no changes detected (Table 11)

White males (Table 11)

At year-end 2021, an estimated 296,400 White males were living with HIV infection (89.4% of whom were living with diagnosed HIV), and the percentages of HIV prevalence were as follows:

- Age—largest percentage: aged ≥55 years (49%); smallest percentage: aged 13–24 years (2%)
- Transmission category—largest percentage: MMSC (81%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—aged 13–24 years
- Decreased—none

- No change detected—all other age groups and all transmission categories

White females (Table 11)

At year-end 2021, an estimated 45,600 White females were living with HIV infection (87.5% of whom were living with diagnosed HIV), and the percentages of HIV prevalence were as follows:

- Age—largest percentage: aged ≥55 years (41%); smallest percentage: aged 13–24 years (2%)
- Transmission category—largest percentage: heterosexual contact (67%)

Percentages living with diagnosed infection in 2021, compared with 2017:

- Increased—none
- Decreased—none
- No change detected—all age groups and transmission categories

Last Reviewed: May 23, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Special Focus Profiles

Report Contents

Other Reports

The Special Focus Profiles highlight the estimated distribution of HIV in populations of particular interest to HIV prevention programs in state and local health departments: (1) Gay, Bisexual, and Other Men who Have Sex with Men, (2) Persons who Inject Drugs, and (3) Persons Aged 13–24 Years. See suggested readings for references and additional information including HIV risk behaviors, barriers to care, and prevention challenges for each population of particular interest.

Gay, Bisexual, and Other Men Who Have Sex With Men

Gay, bisexual, and other men who have sex with men (MSM) are the population most affected by HIV in the United States. Stigma, homophobia, and discrimination make MSM of all races/ethnicities susceptible to multiple physical and mental health problems and can affect whether they seek and receive high-quality health services, including HIV testing, treatment, and other prevention services.

In 2021, MSM (based on ASAB) accounted for 64% (716,900 MMSC and 62,900 MMSC and IDU) of the 1,212,400 estimated persons living with HIV in the United States (Table 8). Many Black/African American and Hispanic/Latino MSM with HIV, particularly young MSM, are unaware of their HIV infection. Lack of awareness of HIV status among young MSM (aged 13–24 years) may be due to recent infection, not getting tested due to underestimation of personal risk, or fewer opportunities to get tested. Persons who do not know they have HIV do not get medical care or receive treatment and can unknowingly infect others.

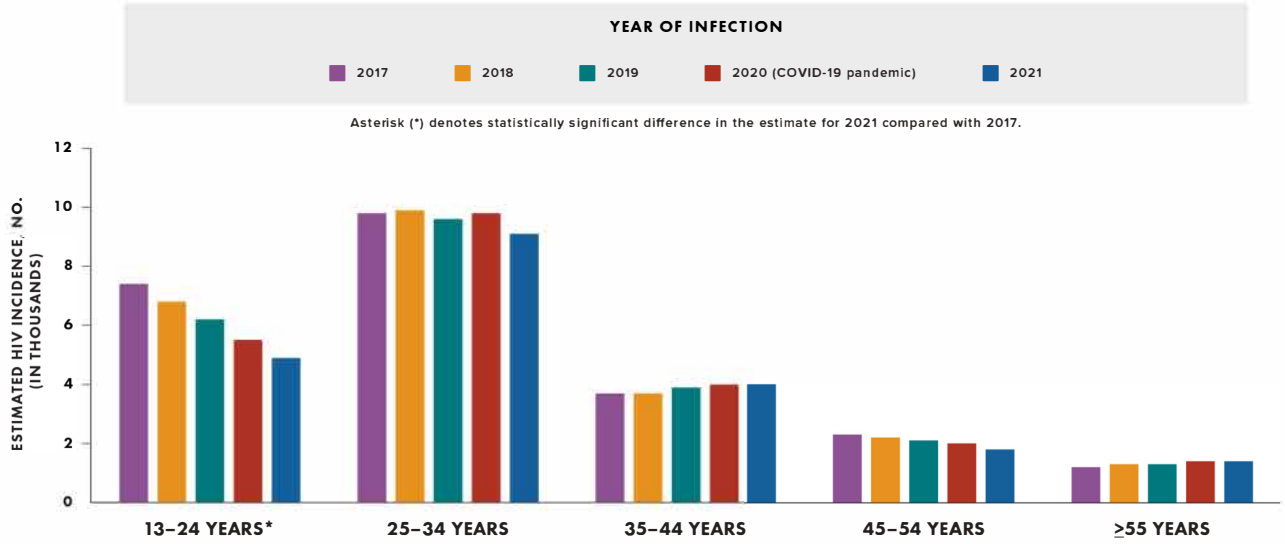
HIV Incidence among MSM

In 2021, HIV incidence among males, based on ASAB, with infection attributed to MMSC, was as follows:

- Decreased overall when compared with 2017 (Figure 8)
- Age at infection—decreased: aged 13–24 years; no change detected: all other age groups (Figure 25 and Table 5)

FIGURE 25

Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

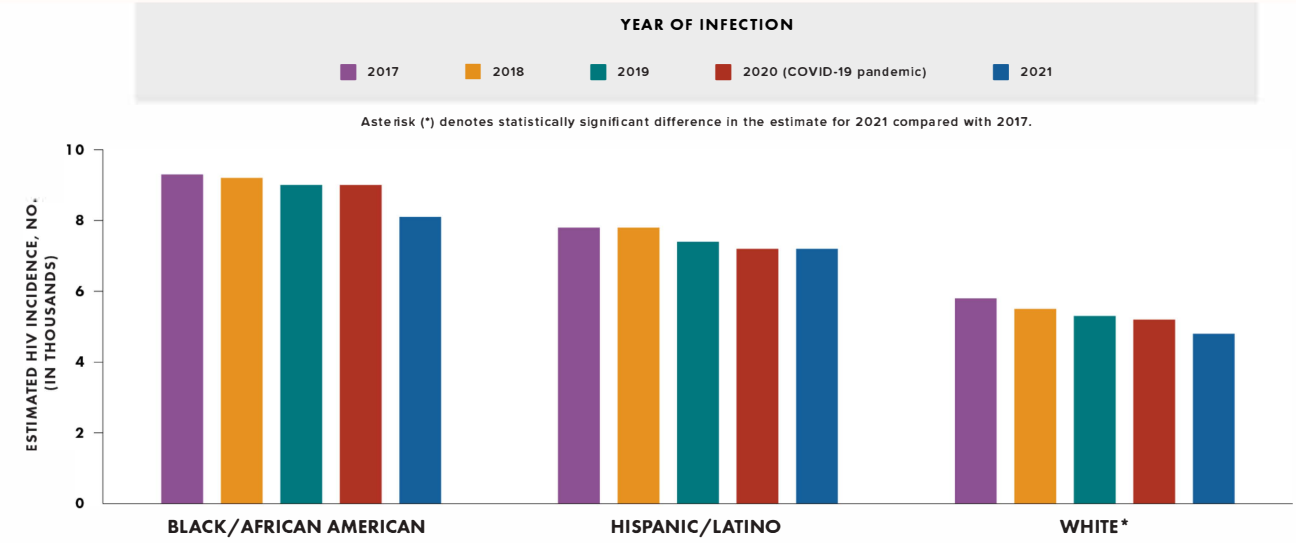


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

HIV Incidence among MSM, by Race/Ethnicity and Age Group

FIGURE 26

Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race.

Black/African American males (based on ASAB)

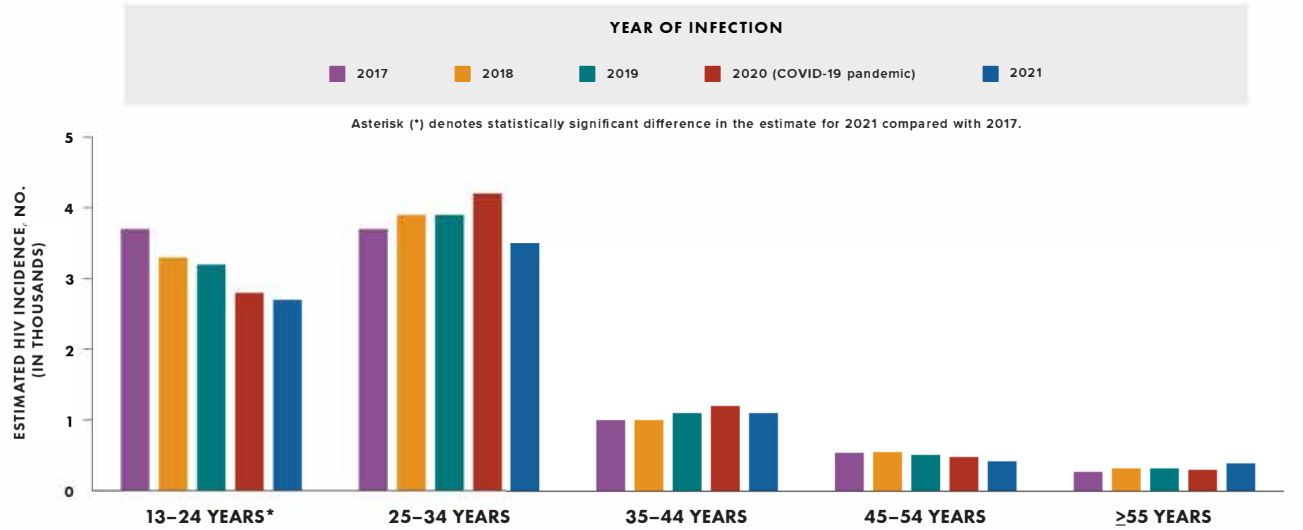
In 2021, HIV incidence among Black/African American males with infection attributed to MMSC was as follows:

- No change detected when compared with 2017 (Figure 26 and Table 5)
- Age at infection—decreased: aged 13–24 years; no change detected: all other age groups (Figure 27 and Table 5)

- The largest percentage (43%) was among young Black/African American males aged 25–34 years (43%) (Table 2)
- Accounted for 55% of infections among MMSC aged 13–24 years (Table 5)

FIGURE 27

Estimated HIV incidence among Black/African American males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

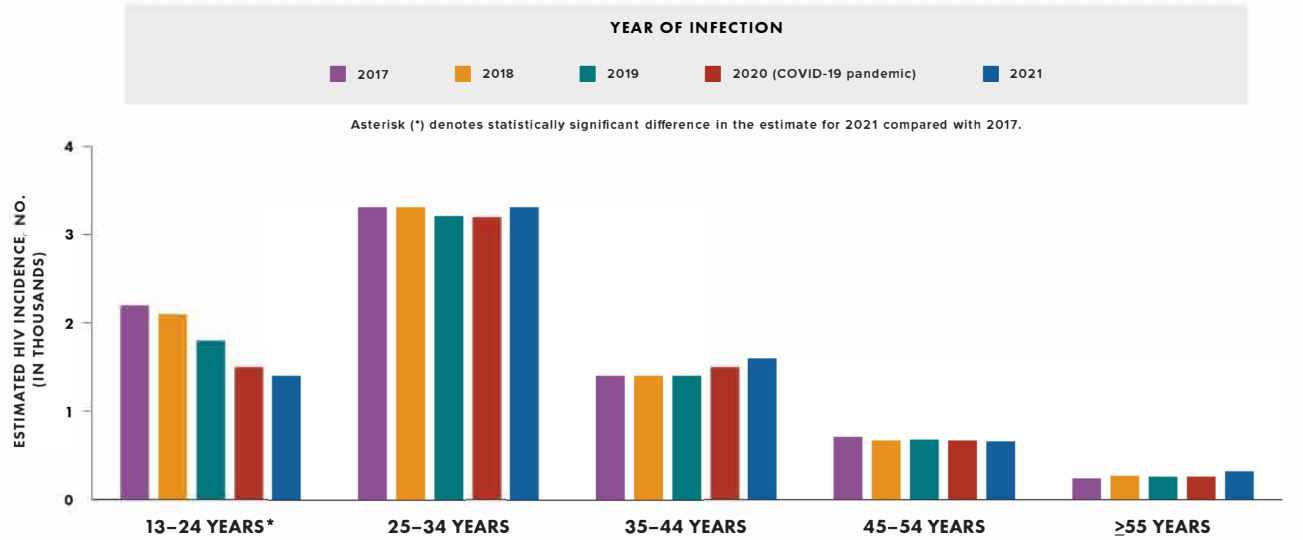
Hispanic/Latino males (based on ASAB)

In 2021, HIV incidence among Hispanic/Latino males with infection attributed to MMSC was as follows:

- No change detected when compared with 2017 (Figure 26)
- Age at infection—decreased: aged 13–24 years; no change detected: all other age groups (Figure 28 and Table 5)

FIGURE 28

Estimated HIV incidence among Hispanic/Latino males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States



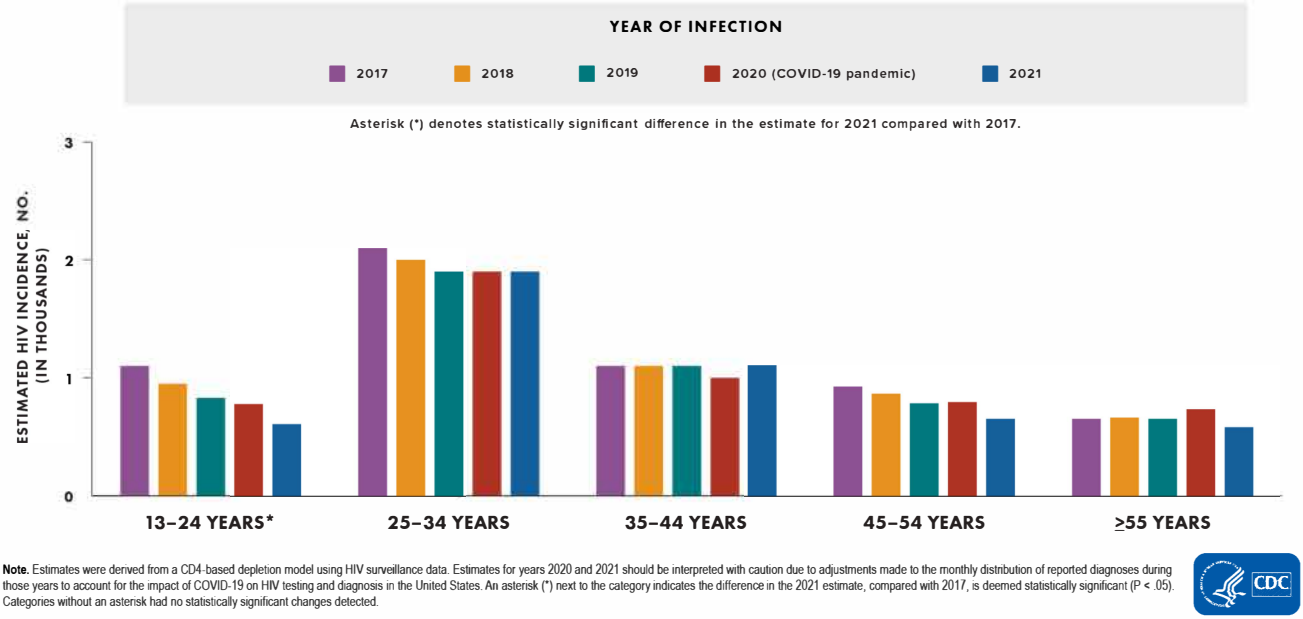
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race.

White males (based on ASAB)

In 2021, HIV incidence among White males with infection attributed to MMSC was as follows:

- Decreased when compared with 2017 (Figure 26)
- Age at infection—decreased: aged 13–24; no change detected: all other age groups (Figure 29 and Table 5)

FIGURE 29
Estimated HIV incidence among White males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

HIV Prevalence among MSM

At year end-2021, an estimated 716,900 MSM were living with diagnosed or undiagnosed HIV infection in the United States (of whom 85.8% were living with diagnosed HIV), accounting for 59% of all persons living with HIV (Table 8).

Among MSM living with HIV at year-end 2021, percentages were (Table 12):

- Black/African American—32%
- Hispanic/Latino—27%
- White—34%
- Other—7%

Persons Who Inject Drugs

Persons who inject drugs (PWID) can get HIV if they use and share needles, syringes, or other drug injection equipment (e.g., cookers) that someone with HIV has used. In recent years, the opioid (including prescription and synthetic opioids) and heroin crisis has led to increased numbers of PWID. HIV diagnoses among PWID have increased in the 50 states and District of Columbia. IDU in nonurban areas has created prevention challenges and brought attention to populations who would benefit from HIV prevention efforts.

Among PWID aged ≥13, no changes were detected in the estimated annual number of HIV infections in 2021, compared with 2017. Additional numbers were as follows:

ASAB (Table 1)

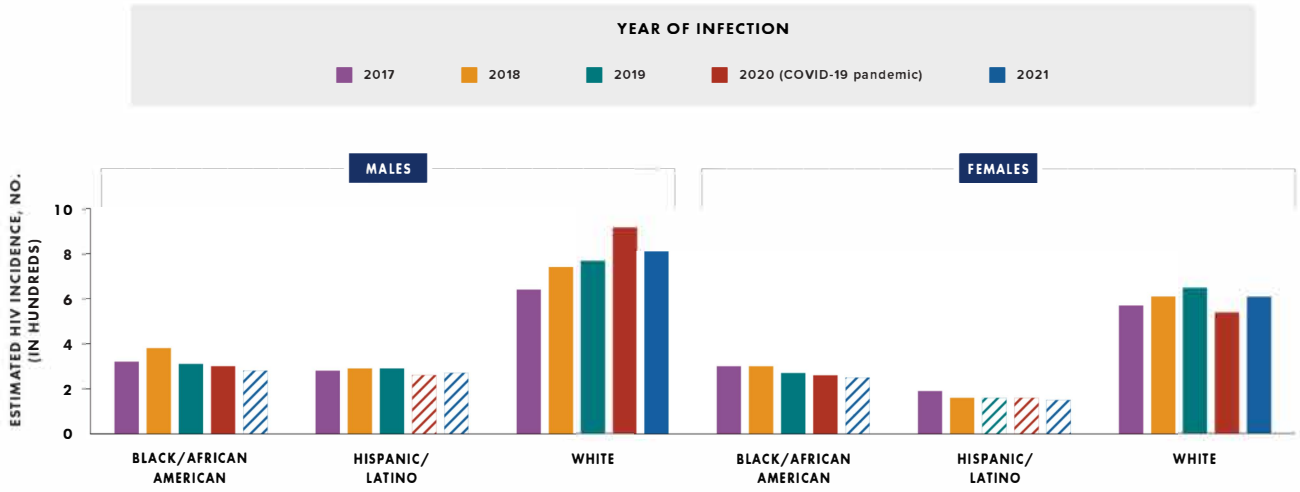
- Increased—none
- Decreased—none
- No change detected—both sexes

Race/Ethnicity

- Increased—none
- Decreased—none
- No change detected—Black/African American, Hispanic/Latino, and White persons

At year end-2021, an estimated 121,900 PWID were living with HIV (of whom 92.2% were living with diagnosed HIV) and accounted for 10% of all persons living with HIV (Table 8).

FIGURE 30
Estimated HIV incidence among persons aged ≥13 years with infection attributed to injection drug use, by assigned sex at birth and race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected. Hispanic/Latino persons can be of any race.

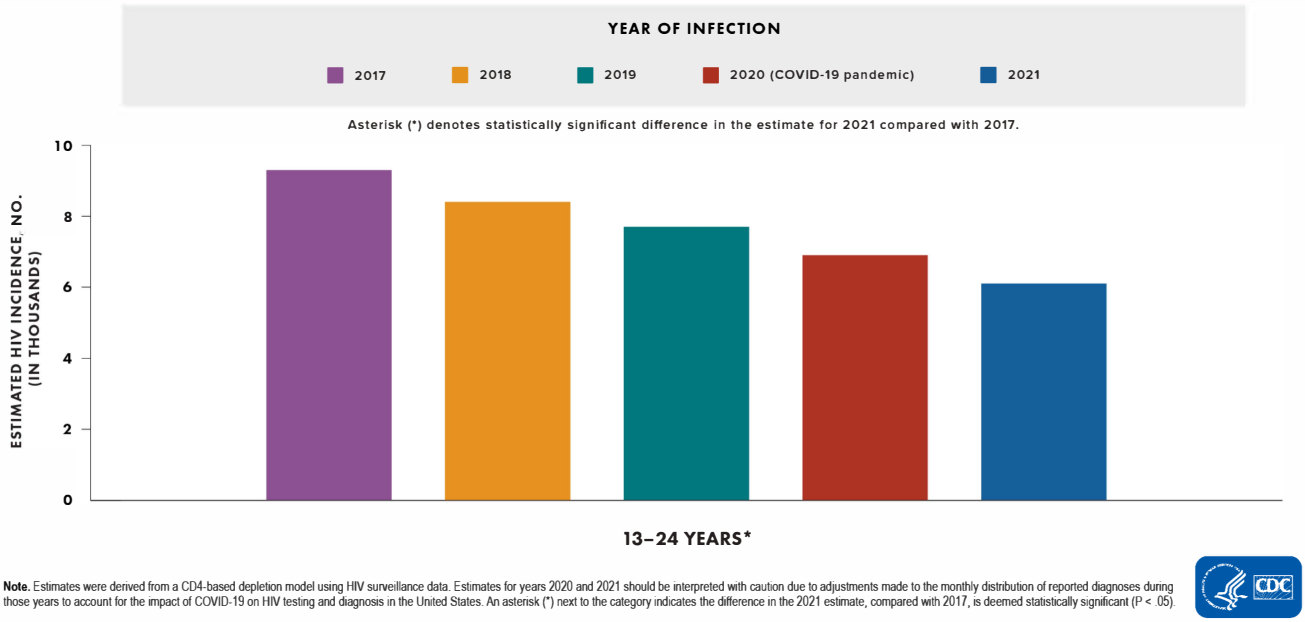
Persons Aged 13–24 Years

Persons aged 13–24 years accounted for 19% of the 32,100 estimated new HIV infections in 2021 in the United States. They are the least likely of any age group to be aware of their HIV infection. Lack of awareness of HIV status may be due to recent infection or low rates of HIV testing. Persons who do not know that they have HIV do not get medical care or receive treatment and can unknowingly infect others. In addition, persons aged 13–24 years have high rates of STDs and low rates of condom use, greatly increasing the chance of getting or transmitting HIV. Addressing HIV among persons aged 13–24 years requires that they have access to the information and tools they need to make healthy decisions, reduce their risk factors, obtain treatment, and stay in care.

The annual number of HIV infections in 2021, compared with 2017, decreased among persons aged 13–24 years overall and among MSM of the age group overall, and Black/African American, Hispanic/Latino, and White MSM (Tables 1 and 5) (Figures 29 and 31).

FIGURE 31

Estimated HIV incidence among persons aged 13–24 years, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$).

Among persons aged 13–24 years, the estimated annual number of HIV infections decreased in 2021, compared with 2017. Additional numbers were as follows:

Race/Ethnicity (Tables 2, 3, and 4)

- Increased—none
- Decreased—Black/African American males, Hispanic/Latino males, and White males
- No change detected—Black/African American females, Hispanic/Latino females, and White females

MSM (Table 5)

- Increased—none
- Decreased—overall, Black/African American, Hispanic/Latino, and White persons
- No change detected—none

At year end-2021, an estimated 41,900 persons aged 13–24 years were living with HIV infection (Table 8).

- Prevalence rate—80.7
- Percentage living with diagnosed HIV infection in 2021: 56.4%

Last Reviewed: May 23, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Technical Notes

A. Surveillance of HIV Infection Overview

Estimates presented in this report are based on case reports from the 50 states and the District of Columbia (and for jurisdiction-level estimates only, Puerto Rico; Tables 6, 13, A1 and A2), all of which have laws or regulations that require confidential reporting to the jurisdiction (not to the Centers for Disease Control and Prevention [CDC]), by name, for all persons with confirmed diagnoses of HIV infection. After the removal of personally identifiable information, data from these reports were submitted to CDC's National HIV Surveillance System (NHSS). Although AIDS cases have been reported to CDC since 1981, the date of implementation of HIV infection reporting has differed from jurisdiction to jurisdiction. All states, the District of Columbia, and Puerto Rico had fully implemented name-based HIV infection reporting by April 2008.

B. CD4 Model

CD4 cells, a type of white blood cell, aid in fighting infections. HIV targets CD4 cells and without treatment, HIV reduces the number of CD4 cells in a person's body. When no treatment has been received, the CD4 cell count can be used to estimate the time since infection at the date of CD4 test. CDC used the first CD4 test result after HIV diagnosis and a CD4-based depletion model (referred to hereafter as the "CD4 model") indicating disease progression or duration after infection [3–6], to estimate HIV incidence (estimated number of new HIV infections each year) and prevalence (persons living with diagnosed or undiagnosed infection) among persons aged ≥13 years during 2017–2021. Reporting of the first CD4 test result after diagnosis of HIV infection is a required data element on the HIV case report form. By December 2022, a CD4 test result had been reported to NHSS for 93.8% of persons with HIV diagnosed during 2017–2021. Completeness of reporting varied among states and local jurisdictions.

The following data were used:

1. CD4 model parameters adapted for the United States (predominately HIV subtype B)
    - Stratified by assigned sex at birth, transmission category, and age (Note. Race/ethnicity is not included in the cohort data used to estimate CD4 depletion.)
2. NHSS data
    - For HIV incidence estimation:
        - All cases of diagnosed HIV infection during 2010–2021

- First CD4 test result at or after diagnosis but presumed to be before treatment
  - CD4 data for persons with evidence of antiretroviral therapy (ART) use prior to their first CD4 test result were excluded from the CD4 model. CD4 counts for these persons were treated as missing and accounted for through weighting.
  - CD4 data for persons who had a viral load result <200 cells/mm3 prior to their first CD4 test result were excluded from the CD4 model. CD4 counts for these persons were treated as missing and accounted for through weighting.
- Case information on stage of disease, geographic and demographic characteristics, transmission category, and vital status

- For estimation of HIV prevalence and percentage of diagnosed infections:
  - Numbers of persons living with diagnosed HIV infection reported to NHSS (at year-end 2009)
  - Annual numbers of deaths among persons with diagnosed HIV infection (during 2010–2021)

B1. HIV Incidence and Prevalence Estimation

Applying the CD4 model to NHSS data, national and jurisdiction-level estimates of HIV incidence and prevalence were obtained in 5 steps:

1. The date of HIV infection was estimated for each person with a CD4 test result by using the CD4-model [6]. Not all persons with diagnosed HIV had a CD4 test result. The number of persons with a CD4 test result was weighted to account for those without a CD4 test result; weighting was based on the year of HIV diagnosis, assigned sex at birth, race/ethnicity, transmission category, age at diagnosis, disease classification, and vital status at year-end 2021. For jurisdiction-level estimates weighting was based on area of residence at diagnosis. Because the CD4 model is based on transmission categories for persons aged ≥13 years, persons aged <13 years at diagnosis and persons with infection attributed to a pediatric risk factor, such as perinatal exposure, were excluded.
2. The distribution of delay (from HIV infection to diagnosis) was used to estimate the annual number of HIV infections, which includes persons with diagnosed infection and persons with undiagnosed infection [3, 4].
3. The number of persons with undiagnosed HIV infection was estimated by subtracting cumulative diagnoses (reported to NHSS) from cumulative infections.
4. HIV prevalence, which represents counts of persons with diagnosed or undiagnosed HIV infection who were alive at the end of a given year, was estimated by adding the number of persons with undiagnosed HIV infection to the number of persons living with diagnosed HIV infection (reported to NHSS).
5. The percentage of diagnosed (or undiagnosed) infections was determined by dividing the number of persons living with diagnosed (or undiagnosed) infections by the total HIV prevalence for each year.

After estimates were produced, confidence intervals were calculated. To reflect model uncertainty, numbers were rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of <1,000. Jurisdiction-level estimates for HIV prevalence (Tables 13 and A2) were produced by using NHSS case data that reflected the person's most recent known address (i.e., at the end of the specified year).

B2. Relative Standard Errors

The relative standard error (RSE) was used to assess the reliability of each point estimate of HIV incidence, prevalence, and undiagnosed infection.

RSE is defined as follows:

$$Relative\ Standard\ Error = \frac{Standard\ error\ of\ estimate}{Estimate} \times 100 \cong \frac{(U95 - L95)/(2 \times 1.96)}{Estimate} \times 100$$

where U95 and L95 are the upper and lower limits of the 95% confidence interval

- RSE of <30%—Estimate meets the standard of reliability and is displayed.
- RSE of 30%–50%—Estimate meets a lower standard of reliability and is displayed but should be interpreted with caution; RSE is designated by an asterisk (*).
- RSE of >50%—Estimate is statistically unreliable and is not displayed; these estimates are expressed by an ellipsis (...).

CDC's National Center for Health Statistics (NCHS) encourages caution when using estimates with an RSE of ≥30% because they are subject to high estimation error [16]. Estimates that do not meet NCHS's requirement for a minimum degree of reliability are typically not published.
Confidence intervals were calculated by using the estimate of the population value and its associated standard error. The confidence intervals reflect the uncertainty of the estimate and represent the likely range in which the true population value lies [3].

B3. Rates

Rates per 100,000 population were calculated for (1) estimated numbers of HIV infections (incidence) and (2) estimated numbers of persons living with diagnosed or undiagnosed HIV infection (prevalence). The population denominators used to compute the rates for the 50 states, the District of Columbia, and Puerto Rico were based on the Vintage 2021 postcensal estimates file (for years 2017–2021) from the U.S. Census Bureau [17]. Rates for transmission categories are not provided in this report because of the absence of denominator data from the U.S. Census Bureau, the source of data used for calculating all rates in this report.

Rate per 100,000 population is defined as follows[a,b,c]:

$$rate = \left(\frac{incidence\ or\ prevalence}{population}\right) \cdot 100{,}000$$

[a] "incidence or prevalence" in the above equation refers to the total number of infections (incidence) or prevalent cases (prevalence) for the calendar year

[b] "population" in the denominator above refers to the total population for the calendar year

[c] the denominators in the above equation, used for calculating the rates specific to age, sex, and race/ethnicity were computed by applying the appropriate vintage estimates for age, sex, and race/ethnicity for the 50 states and the District of Columbia [17]

B4. Jurisdiction-level Estimates

Information only for persons residing in the jurisdiction of interest is used to model diagnosis delay and produce weights accounting for persons without a CD4 result. A person's residence at diagnosis is selected when producing jurisdiction-level estimates for incidence, and most recent known address is selected to determine prevalence of infections (based on data reported to NHSS).

Estimates for the following jurisdictions should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey, Pennsylvania, and Puerto Rico.

Prevalence estimates for the year 2021 are preliminary and based on deaths reported to CDC as of December 2022. The following jurisdictions had incomplete reporting of deaths for the year 2021 and should be interpreted with caution: Mississippi and Puerto Rico.

B5. Persons Living with Diagnosed HIV Infection

Numbers of persons aged ≥13 years living with diagnosed infection presented in Tables 8–13 and A2 are reported numbers, not estimates. These numbers are based on case reports with vital status information reported to CDC through December 2022; data for the year 2021 are preliminary. Persons reported to the NHSS are assumed alive unless their deaths have been reported to CDC.

Reported numbers of persons aged ≥13 years living with diagnosed HIV infection presented in this report (Tables 8–13 and A2) differ from the numbers published in the 2021 *HIV Surveillance Report* because of differences in case selection [14]. In this report, the tabulation for the number of persons aged ≥13 years living with diagnosed HIV infection excluded cases among persons with infection attributed to pediatric-related HIV transmission categories (e.g., perinatal exposure). Numbers of persons living with diagnosed HIV infection presented in the 2021 *HIV Surveillance Report* include all persons aged ≥13 years living with diagnosed HIV infection at the end of the specified year, regardless of HIV transmission category.

B6. Statistical Assessments of Differences (z test)

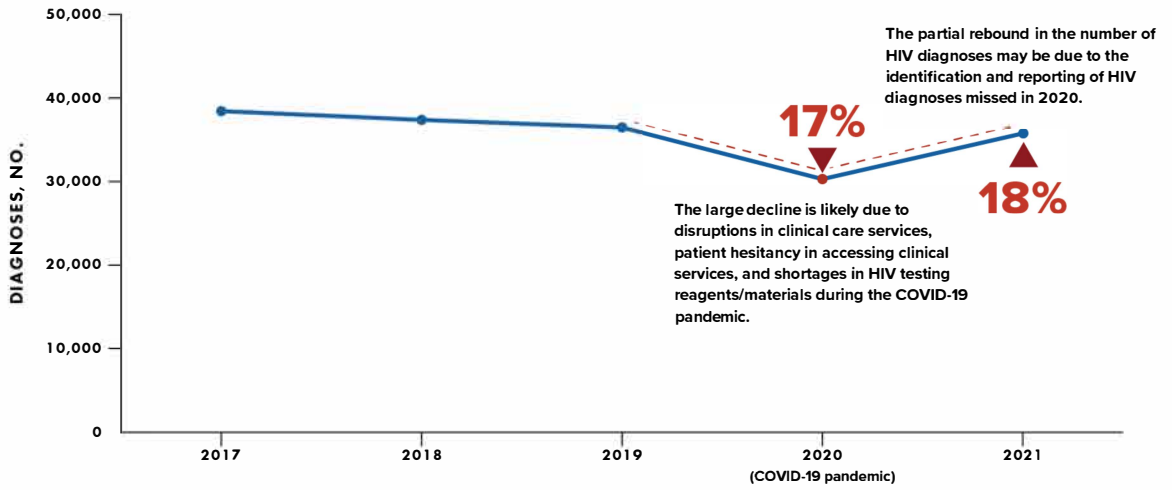
We used the z test to assess differences between estimated numbers of HIV infections and between estimated percentages of persons living with diagnosed HIV infection in 2021, compared with 2017. Differences were deemed statistically significant when P<.05. A statistically significant difference in the 2021 estimate, compared with the 2017 estimate, is indicated with a

footnote indicator on the 2021 estimate (Tables 1–6, 8–13, A1 and A2).

C. HIV Diagnoses Data Adjustments to Address COVID-19 Pandemic

HIV diagnosis is a primary data element used in the CD4 model for estimating HIV incidence and prevalence. A key assumption of the CD4 model is stable HIV testing during the most recent years of the analysis. HIV diagnoses declined 17% from 2019 to 2020 [7, 8]. The steep reduction in diagnoses in 2020 was likely due to disruptions in HIV testing and other clinical care services, patient hesitancy in accessing clinical services, and shortages in HIV testing reagents/materials during the COVID-19 pandemic [8–13] (Figure 32).

FIGURE 32
Diagnoses of HIV infection—United States, 2017–2021

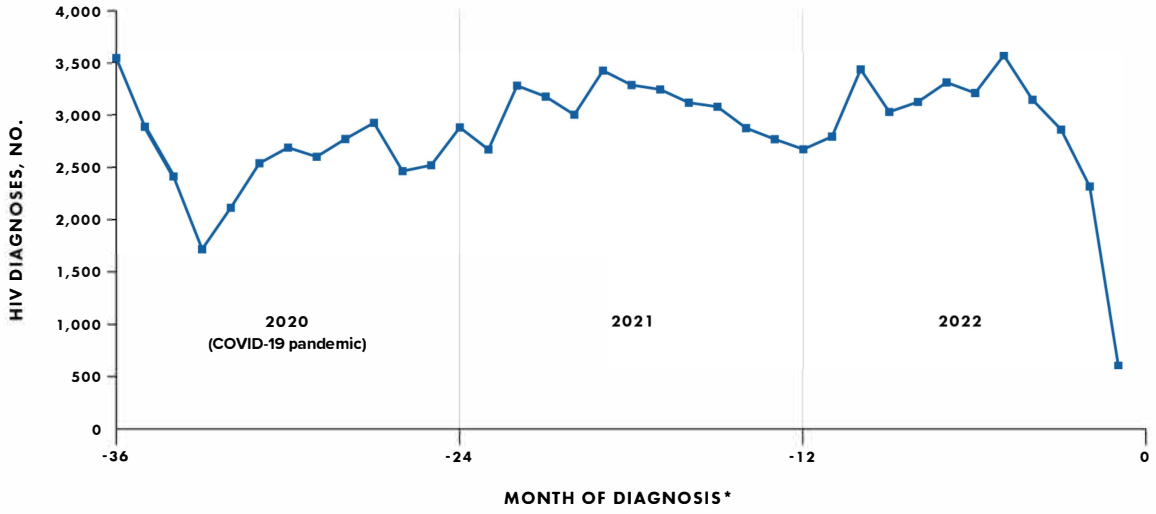


Note. The overall number of HIV diagnoses in the United States in 2020 (30,335) was 17% lower than in 2019. The decline in 2020 was larger than the average yearly decline (2%–3%) observed during 2017–2019. During 2021, the overall number of HIV diagnoses in the United States (35,769) partially rebounded and was 18% higher than in 2020.

In addition to the sharp decline in the overall annual number of diagnoses, there was a sharp decline in diagnoses reported during the early months of 2020 (February–April) when nationwide shelter in place orders were in effect (Figure 33). Consequently, the COVID-19 pandemic contributed to excess delays in HIV diagnosis which violates the assumption of stable testing [18].

FIGURE 33

Monthly distribution of HIV diagnoses among persons aged ≥13 years during 2020–2022 reported to the National HIV Surveillance System as of year-end of 2022

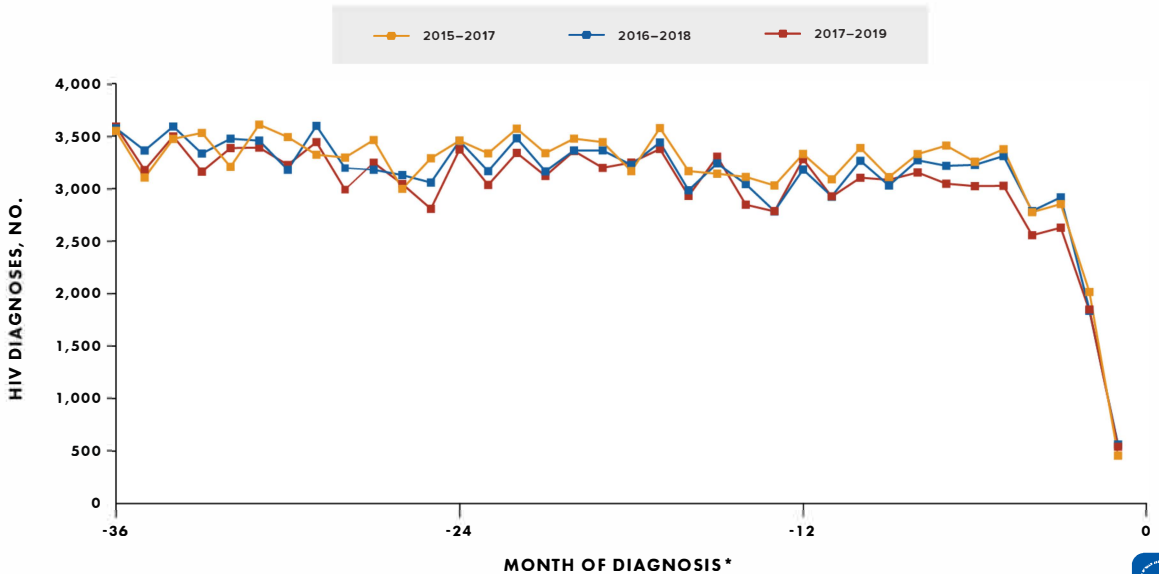


Note. Sharp decline in 2022 (months 0 to -6) are due to routine delays in reporting of HIV diagnoses to the National HIV Surveillance System for the most recent year. *Prior to year-end 2022.

To satisfy the assumption of stable HIV testing required for using the CD4 model, CDC developed an Adjusted Diagnoses Method by which the monthly distribution of HIV diagnoses reported to CDC during 2020–2022 (years affected by COVID-19) was adjusted to match the average monthly distribution of diagnoses reported during the previous 3 sets of 3-year pre-COVID periods (2015–2017, 2016–2018, 2017–2019). It is possible for the total number of diagnoses in each of the 3-year period to be different (depending on incidence and testing rate), while the monthly distribution of reported diagnoses during each of those three years can be the same. A 3-year period was used to adjust the monthly distribution of reported HIV diagnoses because COVID-19 has affected three years of diagnoses data reported to CDC (2020, 2021, and 2022). Three sets of 3-year periods (2015–2017, 2016–2018, 2017–2019) were used to produce more stable estimates for a 3-year monthly distribution (Figure 34).

FIGURE 34

Monthly distribution of three-year periods of HIV diagnoses among persons aged ≥13 years reported to the National HIV Surveillance System at year-end 2017, 2018, and 2019 (pre-COVID-19)



Note. Sharp decline in 2022 (months 0 to -6) are due to routine delays in reporting of HIV diagnoses to the National HIV Surveillance System for the most recent year. *Prior to year-end 2017, 2018, or 2019.

The adjusted monthly diagnoses for years 2020–2022 were calculated using the following steps:

1. The monthly average of reported numbers of diagnoses from 3 sets of pre-COVID 3-year periods (2015–2017, 2016–2018, 2017–2019; Figure 34) was calculated and used as a "template" for the typical 3-year pattern of HIV diagnoses in the United States (Figure 35, "Average" line).
2. The 3-year pattern "template" was used as a guide to recreate the pattern of monthly diagnoses reported during 2020–2022. The "template" was scaled (by a factor of K) to keep the same averaged pattern but to match the total cumulative number of reported diagnoses during years 2020–2022 (Figure 35, "Adjusted" line).

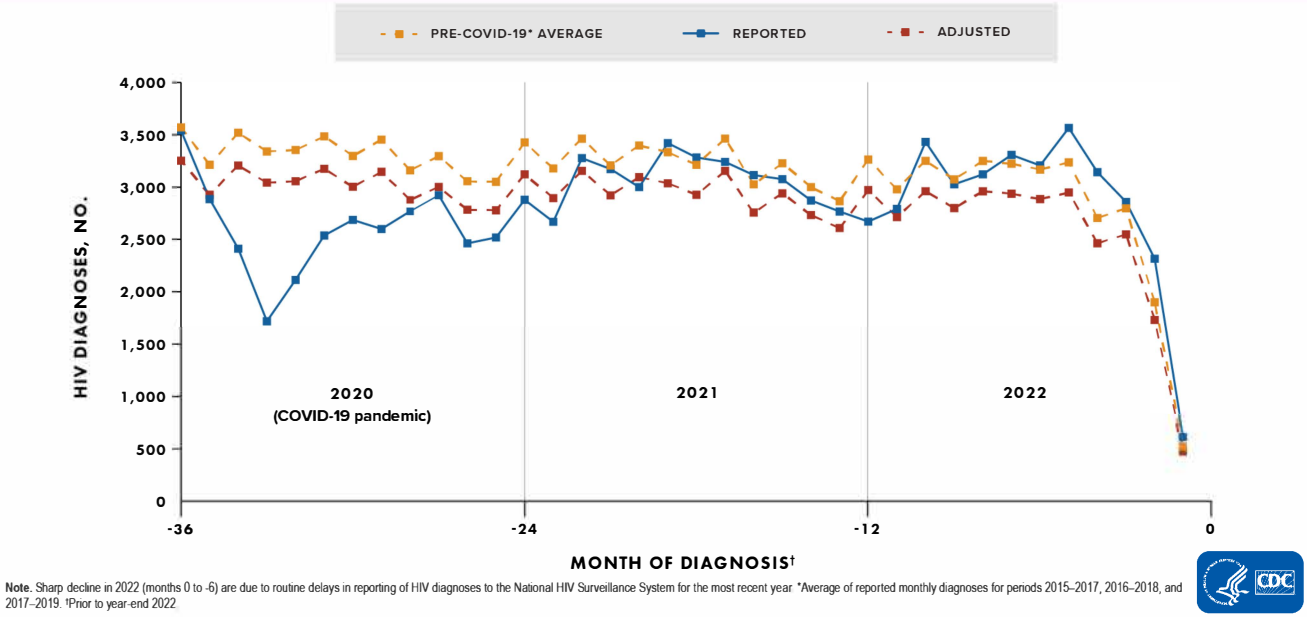
$$K = \frac{Total\ Reported\ Diagnoses\ 2020-2022}{Average\ of\ Total\ Reported\ Diagnoses\ (2015-2017, 2016-2018, 2017-2019)}$$

Adjusted Number of Diagnoses for a month in 2020–2022 =

$$K \times Average\ number\ of\ Reported\ Diagnoses\ in\ the\ corresponding\ month\ during\ (2015-2017,\ 2016-2018,\ 2017-2019)$$

FIGURE 35

Reported and adjusted monthly distributions of HIV diagnoses during 2020–2022, National HIV Surveillance System at year-end 2022



Note. Sharp decline in 2022 (months 0 to -6) are due to routine delays in reporting of HIV diagnoses to the National HIV Surveillance System for the most recent year *Average of reported monthly diagnoses for periods 2015–2017, 2016–2018, and 2017–2019. †Prior to year-end 2022.

3. Monthly weights were calculated based on the reported monthly reported diagnoses data for years 2020–2022 and the adjusted monthly diagnoses derived from the previous step. (Note. The cumulative number of diagnoses reported during years 2020–2022 is not adjusted; see Figure 36.)

$$Wt(t) = \frac{Adjusted\ Diagnoses\ 2020-2022\ (t)}{Reported\ Diagnoses\ 2020-2022\ (t)}$$

The reported monthly diagnoses data and monthly weights for years 2020–2021 were used in the CD4 model to estimate incidence and prevalence. Diagnoses data for the year 2022 were only used to determine the 3-year monthly diagnoses distribution pattern "template" (Figure 36, shaded area). Diagnoses data for the year 2022 were not included in the diagnoses data used in the CD4 model to estimate incidence and prevalence.

Figure 36

Monthly weights applied to 2020–2021 HIV diagnoses for use in CD4 model

YEAR/MONTH (t)		REPORTED DIAGNOSES	ADJUSTED DIAGNOSES	WEIGHT (Wt)
2020	January	3,541	3,253	0.92
	February	2,886	2,928	1.01
	March	2,412	3,206	1.33
	April	1,719	3,043	1.77
	May	2,114	3,056	1.45
	June	2,538	3,175	1.25
	July	2,687	3,004	1.12
	August	2,600	3,146	1.21
	September	2,769	2,878	1.04
	October	2,923	3,002	1.03
	November	2,463	2,784	1.13
	December	2,519	2,779	1.10
2021	January	2,879	3,122	1.08
	February	2,669	2,895	1.09
	March	3,277	3,155	0.96
	April	3,173	2,921	0.92
	May	3,000	3,095	1.03
	June	3,421	3,037	0.89
	July	3,283	2,927	0.89
	August	3,241	3,155	0.97
	September	3,115	2,757	0.89
	October	3,076	2,940	0.96
	November	2,873	2,733	0.95
	December	2,767	2,610	0.94
2022*	January	2,671	2,972	1.11
	February	2,792	2,714	0.97
	March	3,432	2,961	0.86
	April	3,027	2,800	0.93
	May	3,122	2,960	0.95
	June	3,308	2,937	0.89
	July	3,207	2,886	0.90
	August	3,566	2,949	0.83
	September	3,143	2,464	0.78
	October	2,859	2,549	0.89
	November	2,316	1,731	0.75
	December	611	474	0.77
2020–2022	**Total**	101,999	101,999	

*Diagnoses data for the year 2022 were only used to determine the 3-year monthly diagnoses distribution pattern "template" (shaded area). Year 2022 diagnoses data were not used in the CD4 model to estimate incidence and prevalence. Sharp decline in most recent months is due to delays in reporting of HIV diagnoses to the National HIV Surveillance System (NHSS).

4. Effects of covariates (assigned sex at birth, age, race/ethnicity, transmission category) were considered in the process of producing monthly weights.

Assumptions of Adjusted Diagnoses Method. Estimates for years 2020 and 2021 should be interpreted with caution. We interpret the use of adjusted diagnoses as how HIV diagnoses would have been reported to CDC if COVID-19 did not cause excess delays. The validity of the adjustments made to the monthly distribution of HIV diagnoses for 2020 and 2021 relies on the following three assumptions:

1. That there were longer-than-normal delays in the time from acquiring HIV infection to diagnosis during 2020 and 2021 because of the adverse impact of COVID-19 on HIV testing and diagnosis in the United States during those years. This

assumption is supported by published studies [18, 19].

2. That all delayed HIV diagnoses were recovered and reported to CDC by December 2022. If this assumption is not true, incidence estimates produced for years 2020 and 2021, based on the adjusted data, may be lower than they should be.
3. That there would have been a similar pattern (relative distribution) of monthly reported HIV diagnoses during 2020–2022 compared to previous years if COVID-19 had not delayed any diagnoses.

Important note. HIV incidence and prevalence estimates for years presented in this report may change in the future when more diagnoses data have been reported to CDC. The most recent years' estimates are the most unreliable due to delays in reporting of diagnoses to CDC.

D. Tabulation and Presentation of Data

Numbers and percentages in this surveillance supplemental report (except numbers of persons living with diagnosed HIV infection) were estimated by using the CD4 depletion model [3–6]. The estimated numbers and rates of HIV incidence and the estimated numbers, rates, and percentages of persons living with diagnosed or undiagnosed infection are presented with associated 95% confidence intervals in the tables. The data are organized into 2 sections: National Profile and Special Focus Profiles. For both the National Profile and Special Focus Profiles, figures are presented. The tables are organized into 3 sections:

1. Tables 1–6: numbers and rates of estimated HIV incidence among persons aged ≥13 years
2. Tables 7–13: numbers and rates of estimated HIV prevalence among persons aged ≥13 years (persons living with diagnosed or undiagnosed infection); numbers and percentages of persons living with undiagnosed infection (Table 7) or living with diagnosed infection (Tables 8–13)
3. Appendix
    a. Table A1: numbers and rates of estimated HIV incidence among persons aged ≥13 years residing in Ending the HIV Epidemic Phase I jurisdictions
    b. Table A2: numbers and rates of estimated HIV prevalence among persons aged ≥13 years (persons living with diagnosed or undiagnosed infection); numbers (reported to NHSS) and estimated percentage of persons living with diagnosed infection residing in Ending the HIV Epidemic Phase I jurisdictions

D1. Age

For this report, age assignments are based on the following:

- For presentations of estimated HIV incidence (Tables 1–5), age group assignment (e.g., 13–24 years) is based on age at infection
- For presentations of estimated HIV prevalence (Tables 7–12), age group assignment is based on age as of December 31 of the specified year

D2. Assigned Sex at Birth (ASAB)

Sex designations in this report are based on a person's assigned sex at birth. Data for gender are not provided in this report because the small numbers for transgender persons and persons of additional gender identity yield unreliable estimates.

D3. Race and Ethnicity

In the Federal Register for October 30, 1997, the Office of Management and Budget (OMB) announced the Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Implementation by January 1, 2003, was mandated [20].

More information on race and ethnicity can be found in the Technical Notes of the 2021 *HIV Surveillance Report* at https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html.

D4. Transmission Categories

Transmission category is the term for the classification of cases that summarizes a person's (aged ≥13 years) 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.

More information on transmission categories can be found in the Technical Notes of the 2021 *HIV Surveillance Report* at https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html.

D5. Geographic Designations

The 4 regions of residence used in this report are defined by the U.S. Census Bureau as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

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

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming

E. Limitations of Data, Assumptions, and Reliability

E1. Limitations

The CD4 model can be used to produce estimates of HIV incidence, prevalence, and undiagnosed infection for any population, at any level of stratification for which surveillance data are available. However, when stratifying variables to produce estimates for select populations, one must take the following into consideration:

- **Reliability of estimates**, as measured by RSE (primary consideration). Smaller populations generally result in less reliable estimates.
- **Stratification variables**. Assigned sex at birth, race/ethnicity, transmission category, and age are acceptable variables for stratifications. Other variables should be used with caution because the modeling for diagnosis delay does not account for them.
- **Completeness of CD4 data**. By December 2022, a CD4 test result had been reported to NHSS for 93.8% of persons with HIV infection diagnosed during 2017–2021. However, completeness of reporting varied among states and local jurisdictions.
- **Impact of migration** (for geographic analyses). Geographic areas are assumed to be closed (people get infected, receive a diagnosis, and die in the area under consideration) or balanced (approximately the same number of infected people moved into or out of the area under consideration). Smaller geographic areas are less likely to be closed or balanced; estimates should be interpreted with caution.

Important note. HIV incidence and prevalence estimates for years presented in this report may change in the future when more diagnoses data have been reported to CDC. The most recent years' estimates are the most unreliable due to delays in reporting of diagnoses to CDC.

E2. Assumptions of CD4 Model

The CD4 model relies on a series of assumptions:

1. The CD4 depletion model is accurate.
2. Persons received no treatment before the first CD4 test.
3. All data adjustments (e.g., multiple imputation for missing values of transmission category, weighting to account for cases without a CD4 test, adjusted monthly distribution of diagnoses to address COVID-19 impact) are unbiased.
4. The distribution of diagnosis delay is relatively stable (no significant change in testing over time).
5. A person's HIV infection, diagnosis, and death occur in a closed population (no migration).

Suggested Readings

1. CDC. *HIV Surveillance Report*, 2021; vol.34. https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2023. Accessed May 2023.
2. CDC [Branson BM, Handsfield HH, Lampe MA, et al]. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(RR-14):1–17. https://www.cdc.gov/mmwr/indrr_2006.html. Accessed May 3, 2023.

3. CDC [Selik RM, Mokotoff ED, Branson B, Owen SM, Whitmore S, Hall HI]. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014;63(RR-03):1–10. https://www.cdc.gov/mmwr/indrr_2014.html. Accessed May 3, 2023.
4. CDC [Schneider E, Whitmore S, Glynn MK, Dominguez K, Mitsch A, McKenna MT]. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. *MMWR* 2008;57(RR-10):1–12. https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm. Accessed May 3, 2023.
5. Hall HI, Song R, Tang T, et al. HIV trends in the United States: Diagnoses and estimated incidence. *JMIR Public Health Surveill* 2017;3(1):e8. doi:10.2196/publichealth.7051
6. Satcher Johnson A, Song R. Incident and prevalent HIV infections attributed to sexual transmission in the United States, 2018. *Sex Transm Dis* 2021;48(4):285–291. doi:10.1097/OLQ.0000000000001354
7. Satcher Johnson A, Song R, Hall HI. Estimated HIV incidence, prevalence, and undiagnosed infections in US states and Washington, DC, 2010–2014. *J Acquir Immune Defic Syndr* 2017;76(2):116–122. doi:10.1097/QAI.0000000000001495
8. Singh S, Song R, Satcher Johnson A, McCray E, Hall HI. HIV incidence, HIV prevalence, and undiagnosed HIV infections in men who have sex with men, United States. *Ann Intern Med* 2018;168(10):685–694. doi:10.7326/M17-2082

1. HHS. What is 'Ending the HIV Epidemic: A Plan for America'? https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview . Published October 4, 2019. Accessed May 3, 2023.
2. Rodger AJ, Cambiano V, Bruun T, et al. Sexual activity without condoms and risk of HIV transmission in sero-different couples when the HIV-positive partner is using suppressive antiretroviral therapy. *JAMA* 2016;316(2):171–181. doi:10.1001/jama.2016.5148
3. Song R, Hall HI, Green TA, Szwarcwald CL, Pantazis N. Using CD4 data to estimate HIV incidence, prevalence, and percent of undiagnosed infections in the United States. *J Acquir Immune Defic Syndr* 2017;74(1):3–9. doi:10.1097/QAI.0000000000001151
4. Hall HI, Song R, Szwarcwald CL, Green T. Time from infection with the human immunodeficiency virus to diagnosis, United States. *J Acquir Immune Defic Syndr* 2015; 69(2):248–251. doi:10.1097/QAI.0000000000000589
5. Lodi S, Phillips A, Touloumi G, et al; for CASCADE Collaboration in EuroCoord. Time from human immuno-deficiency virus seroconversion to reaching CD4+ cell count thresholds <200, <350, and <500 cells/mm^3: assessment of need following changes in treatment guidelines. *Clin Infect Dis* 2011;53(8):817–825. doi:10.1093/cid/cir494
6. Touloumi G, Pantazis N, Pillay D, et al; for CASCADE Collaboration in EuroCoord. Impact of HIV-1 subtype on CD4 count at HIV seroconversion, rate of decline, and viral load set point in European seroconverter cohorts. *Clin Infect Dis* 2013;56(6):888–897. doi:10.1093/cid/cis1000
7. CDC [Schuchat A, CDC COVID-19 Response Team]. Public health response to the initiation and spread of pandemic COVID-19 in the United States, February 24–April 21, 2020. *MMWR* 2020;69(18):551–556. doi:10.15585/mmwr.mm6918e2
8. CDC. HIV Surveillance Report, 2020; vol. 33. https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2022. Accessed May 3, 2023.
9. Delaney KP, Jayanthi P, Emerson B, et al. Impact of COVID-19 on commercial laboratory testing for HIV in the United States. 2021 CROI, March 6–10, 2021. Abstract 739.
10. Moitra E, Tao J, Olsen J, et al. Impact of the COVID-19 pandemic on HIV testing rates across four geographically diverse urban centres in the United States: an observational study. *Lancet Reg Health Am* 2022;7:100159. doi:10.1016/j.lana.2021.100159
11. Chang JJ, Chen Q, Hechter RC, Dionne-Odom J, Bruxvoort K. Changes in HIV and STI testing and diagnoses during the COVID-19 pandemic. 2022 CROI, February 12–16 and 22–24, 2022. Oral Abstract 142.
12. Hoover KW, Zhu W, Gant ZC, et al. HIV services and outcomes during the COVID-19 pandemic—United States, 2019–2021. *MMWR* 2022;71(48):1505–1510. doi:10.15585/mmwr.mm7148a1
13. CDC [DiNenno EA, Delaney KP, Pitasi MA, et al.] HIV testing before and during the COVID-19 pandemic—United States, 2019–2020. *MMWR* 2022;71(25):820–824. doi:10.15585/mmwr.mm7125a2
14. CDC. HIV Surveillance Report, 2021; vol. 34. https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html Published May 2023. Accessed May 2023.

15. Collins J, Niakan K, Schweitzer K, Silseth S. Study of the impact of COVID-19 on HIV testing, diagnosis, and treatment in the United States. Published October 2022. Milliman White Paper available at https://www.milliman.com/en/insight/impact-of-covid-19-on-hiv . Accessed May 3, 2023.
16. Klein RJ, Proctor SE, Boudreault MA, Turczyn KM. Healthy People 2010 criteria for data suppression. *Healthy People 2010 Stat Notes* 2002;(No. 24):1–11. https://www.cdc.gov/nchs/data/statnt/statnt24.pdf . Accessed May 3, 2023.
17. U.S. Census Bureau. Population and housing unit estimates datasets. https://www.census.gov/programs-surveys/popest/data/data-sets.html . May 3, 2023.
18. Viguerie A, Song R, Johnson AS, Lyles CM, Hernandez A, Farnham PG. Isolating the effect of COVID-19–related disruptions on HIV diagnoses in the United States in 2020. *J Acquir Immune Defic Syndr* 2023;92(4):293–299. doi:10.1097/QAI.0000000000003140
19. CDC [DiNenno EA, Delaney KP, Pitasi MA, et al]. HIV testing before and during the COVID-19 pandemic—United States, 2019–2020. *MMWR* 2022;71(25):820–824. doi:10.15585/mmwr.mm7125a2
20. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register* 1997;62:58782–58790. https://www.federalregister.gov/documents/1997/10/30/97-28653/revisions-to-the-standards-for-the-classification-of-federal-data-on-race-and-ethnicity . Accessed May 3, 2023.

Last Reviewed: May 23, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Tables

All Tables

Report Contents

Other Reports

Table 1. Estimated HIV incidence among persons aged ≥13 years, by selected characteristics, 2017–2021—United States

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Assigned sex at birth					
Male	29,700	2.1	28,500—30,900	22.3	21.4—23.2
Female	6,800	4.1	6,200—7,300	4.9	4.5—5.3
Age at infection (yr)					
13–24	9,300	3.7	8,600—10,000	18.0	16.7—19.4
25–34	13,600	3.1	12,700—14,400	29.9	28.1—31.8
35–44	6,500	4.5	5,900—7,000	15.8	14.5—17.2
45–54	4,300	5.5	3,900—4,800	10.3	9.1—11.4
≥55	2,800	7.0	2,400—3,200	3.0	2.6—3.5
Race/ethnicity					
American Indian/Alaska Native	190	26.3	90—290	9.6	4.7—14.6
Asian	600	15.3	420—780	3.9	2.7—5.0
Black/African American	15,100	2.9	14,300—16,000	45.3	42.8—47.8
Hispanic/Latino[c]	10,100	3.8	9,400—10,900	22.5	20.9—24.2
Native Hawaiian/other Pacific Islander	60	*49.1	0—110	11.7	0.4—22.9
White	9,000	3.7	8,400—9,700	5.3	4.9—5.6
Multiracial	1,400	10.1	1,100—1,600	30.0	24.1—36.0

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Transmission category[d]					
Male-to-male sexual contact[e]	24,500	2.3	23,400—25,600	—	—
Injection drug use[f]	2,400	6.6	2,100—2,700	—	—
Male	1,300	9.7	1,100—1,600	—	—
Female	1,100	8.9	930—1,300	—	—
Male-to-male sexual contact[e] and injection drug use[f]	1,400	8.8	1,200—1,600	—	—
Heterosexual contact[g]	8,100	4.2	7,400—8,800	—	—
Male	2,500	9.1	2,100—3,000	—	—
Female	5,600	4.7	5,100—6,100	—	—
Region of residence					
Northeast	5,100	5.1	4,600—5,600	10.7	9.6—11.8
Midwest	4,900	5.1	4,400—5,300	8.5	7.7—9.3
South	19,000	2.6	18,000—20,000	18.4	17.5—19.4
West	7,500	4.2	6,900—8,100	11.6	10.7—12.6
Total[h]	**36,500**	**1.9**	**35,100—37,800**	**13.4**	**12.9—13.9**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Assigned sex at birth					
Male	29,400	2.4	28,000—30,800	21.9	20.9—23.0
Female	6,700	4.7	6,100—7,300	4.8	4.3—5.2
Age at infection (yr)					
13–24	8,400	4.4	7,700—9,200	16.5	15.0—17.9
25–34	13,800	3.5	12,900—14,800	30.3	28.2—32.4
35–44	6,700	5.0	6,000—7,300	16.2	14.6—17.8
45–54	4,200	6.4	3,700—4,800	10.2	8.9—11.5
≥55	2,900	7.6	2,500—3,400	3.1	2.6—3.6
Race/ethnicity					
American Indian/Alaska Native	180	*31.2	70—280	8.9	3.5—14.4
Asian	560	18.2	360—760	3.5	2.3—4.8
Black/African American	15,000	3.3	14,000—15,900	44.4	41.6—47.3
Hispanic/Latino[c]	10,100	4.3	9,200—10,900	21.9	20.1—23.8
Native Hawaiian/other Pacific Islander	…	…	…	…	…
White	9,000	4.2	8,200—9,700	5.2	4.8—5.7
Multiracial	1,300	11.6	1,000—1,600	27.8	21.5—34.1
Transmission category[d]					
Male-to-male sexual contact[e]	23,900	2.7	22,700—25,200	—	—
Injection drug use[f]	2,600	7.6	2,200—3,000	—	—
Male	1,500	10.3	1,200—1,800	—	—
Female	1,100	10.6	910—1,400	—	—
Male-to-male sexual contact[e] and injection drug use[f]	1,500	9.2	1,200—1,800	—	—
Heterosexual contact[g]	8,000	4.8	7,200—8,800	—	—
Male	2,500	10.3	2,000—3,000	—	—
Female	5,500	5.3	5,000—6,100	—	—

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Region of residence					
Northeast	5,000	5.8	4,400—5,500	10.4	9.2—11.5
Midwest	4,800	5.8	4,300—5,300	8.4	7.4—9.3
South	18,800	3.0	17,700—19,900	18.0	16.9—19.1
West	7,600	4.7	6,900—8,300	11.7	10.6—12.8
Total[h]	**36,100**	**2.2**	**34,600—37,700**	**13.2**	**12.6—13.7**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2019				
Assigned sex at birth					
Male	28,500	2.8	26,900—30,000	21.1	19.9—22.3
Female	6,400	5.4	5,700—7,000	4.5	4.0—5.0
Age at infection (yr)					
13–24	7,700	5.4	6,900—8,500	15.0	13.5—16.6
25–34	13,500	4.0	12,500—14,600	29.4	27.1—31.7
35–44	6,800	5.7	6,000—7,500	16.2	14.4—18.0
45–54	3,900	7.5	3,400—4,500	9.7	8.2—11.1
≥55	2,900	8.7	2,400—3,400	3.0	2.5—3.6
Race/ethnicity					
American Indian/Alaska Native	210	*32.7	70—340	10.4	3.7—17.0
Asian	540	20.3	330—760	3.4	2.0—4.7
Black/African American	14,400	3.8	13,300—15,400	42.3	39.1—45.4
Hispanic/Latino[c]	9,600	5.1	8,600—10,600	20.5	18.4—22.5
Native Hawaiian/other Pacific Islander	...	...	...	...	...
White	8,800	4.8	8,000—9,600	5.1	4.7—5.6
Multiracial	1,300	13.3	930—1,600	26.0	19.2—32.7
Transmission category[d]					
Male-to-male sexual contact[e]	23,100	3.1	21,700—24,500	—	—
Injection drug use[f]	2,600	8.6	2,200—3,000	—	—
Male	1,400	12.4	1,100—1,800	—	—
Female	1,200	11.6	890—1,400	—	—
Male-to-male sexual contact[e] and injection drug use[f]	1,500	10.4	1,200—1,800	—	—
Heterosexual contact[g]	7,600	5.5	6,800—8,400	—	—
Male	2,400	11.5	1,900—3,000	—	—
Female	5,200	6.1	4,600—5,800	—	—
Region of residence					
Northeast	4,700	6.9	4,100—5,300	9.8	8.5—11.2
Midwest	4,500	6.9	3,900—5,200	7.9	6.8—9.0
South	18,400	3.5	17,100—19,600	17.4	16.3—18.6
West	7,200	5.5	6,500—8,000	11.0	9.8—12.2
Total[h]	**34,800**	**2.5**	**33,100—36,600**	**12.6**	**12.0—13.2**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				
Assigned sex at birth					
Male	27,700	3.4	25,900—29,600	20.2	18.8—21.6
Female	5,900	6.6	5,100—6,700	4.2	3.6—4.7
Age at infection (yr)					
13–24	6,900	6.8	6,000—7,800	13.3	11.5—15.1
25–34	13,700	4.8	12,400—14,900	29.9	27.1—32.7
35–44	6,700	6.9	5,800—7,600	15.5	13.4—17.6
45–54	3,700	9.2	3,000—4,400	9.0	7.4—10.6
≥55	2,700	10.6	2,200—3,300	2.8	2.2—3.4
Race/ethnicity					
American Indian/Alaska Native	230	*35.9	70—390	11.3	3.3—19.2
Asian	510	25.2	260—760	3.1	1.5—4.6
Black/African American	13,900	4.7	12,600—15,200	40.3	36.5—44.0
Hispanic/Latino[c]	9,100	6.3	8,000—10,200	18.9	16.5—21.2
Native Hawaiian/other Pacific Islander	…	…	…	…	…
White	8,800	5.6	7,800—9,700	5.1	4.5—5.7
Multiracial	1,100	17.0	730—1,500	21.6	14.4—28.8
Transmission category[d]					
Male-to-male sexual contact[e]	22,700	3.8	21,000—24,400	—	—
Injection drug use[f]	2,600	10.9	2,000—3,100	—	—
Male	1,500	14.7	1,100—2,000	—	—
Female	1,000	15.6	700—1,300	—	—
Male-to-male sexual contact[e] and injection drug use[f]	1,400	13.2	1,000—1,700	—	—
Heterosexual contact[g]	6,900	6.8	6,000—7,800	—	—
Male	2,100	15.1	1,400—2,700	—	—
Female	4,900	7.4	4,200—5,600	—	—
Region of residence					
Northeast	4,600	8.4	3,800—5,300	9.3	7.8—10.9
Midwest	4,700	8.1	3,900—5,400	8.1	6.8—9.3
South	17,200	4.3	15,700—18,600	16.2	14.8—17.6
West	7,200	6.6	6,300—8,200	10.9	9.5—12.4
Total[h]	**33,600**	**3.1**	**31,600—35,700**	**12.1**	**11.3—12.8**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
Assigned sex at birth					
Male	25,900[i]	4.0	23,900—27,900	18.8	17.3—20.2
Female	6,200	6.9	5,400—7,000	4.4	3.8—5.0
Age at infection (yr)					
13–24	6,100[i]	8.0	5,200—7,100	11.8	10.0—13.7
25–34	12,600	5.6	11,200—14,000	27.7	24.7—30.7
35–44	6,800	7.6	5,800—7,800	15.6	13.3—18.0
45–54	3,600	10.3	2,900—4,300	8.8	7.0—10.6
≥55	3,000	11.3	2,300—3,600	3.0	2.3—3.7

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
Race/ethnicity					
American Indian/Alaska Native	190	*45.8	20—360	9.2	0.9—17.4
Asian	470	29.6	200—750	2.8	1.2—4.5
Black/African American	13,000[i]	5.4	11,600—14,300	37.3	33.4—41.3
Hispanic/Latino[c]	9,300	6.9	8,100—10,600	18.9	16.4—21.5
Native Hawaiian/other Pacific Islander	...	...	...	...	...
White	8,200	6.5	7,100—9,200	4.8	4.2—5.4
Multiracial	890[i]	21.1	520—1,300	17.0	10.0—24.1
Transmission category[d]					
Male-to-male sexual contact[e]	21,100[i]	4.4	19,300—23,000	—	—
Injection drug use[f]	2,500	12.4	1,900—3,100	—	—
Male	1,400	17.6	930—1,900	—	—
Female	1,100	17.3	710—1,400	—	—
Male-to-male sexual contact[e] and injection drug use[f]	1,300	15.2	890—1,600	—	—
Heterosexual contact[g]	7,100	7.2	6,100—8,100	—	—
Male	2,000	16.5	1,400—2,700	—	—
Female	5,100	7.6	4,300—5,800	—	—
Region of residence					
Northeast	4,400	9.4	3,600—5,200	9.0	7.3—10.7
Midwest	4,400	9.2	3,600—5,200	7.6	6.2—9.0
South	16,700[i]	4.8	15,100—18,200	15.6	14.1—17.1
West	6,600	7.7	5,600—7,600	10.0	8.4—11.5
Total[h]	**32,100[i]**	**3.5**	**29,900—34,300**	**11.5**	**10.7—12.2**

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE >50% are not shown and are replaced with an ellipsis (...).

[a]Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data.
[b]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c]Hispanic/Latino persons can be of any race.
[d]Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[e]Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[f]Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[g]Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[h]Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[i]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 2. Estimated HIV incidence among Black/African American persons aged ≥13 years, by year of infection, assigned sex at birth, and selected characteristics, 2017–2021—United States

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Male					
Age at infection (yr)					
13–24	3,900	5.6	3,500—4,400	106.6	94.9—118.2
25–34	4,300	5.4	3,900—4,800	139.9	125.2—154.6
35–44	1,500	9.5	1,200—1,800	60.1	48.9—71.2
45–54	920	12.4	700—1,100	37.3	28.3—46.4
≥55	690	14.9	490—890	17.1	12.1—22.1
Transmission category[c]					
Male-to-male sexual contact[d]	9,300	3.6	8,600—9,900	—	—
Injection drug use[e]	320	18.8	200—440	—	—
Male-to-male sexual contact[d] and injection drug use[e]	260	20.2	150—360	—	—
Heterosexual contact[f]	1,500	11.6	1,100—1,800	—	—
Subtotal[g]	11,300	3.4	10,600—12,100	72.0	67.3—76.8
Female					
Age at infection (yr)					
13–24	670	13.3	500—850	18.7	13.8—23.6
25–34	1,100	10.4	860—1,300	34.2	27.2—41.2
35–44	790	12.1	600—980	28.8	22.0—35.7
45–54	670	13.3	490—840	23.9	17.7—30.1
≥55	560	14.4	400—720	10.6	7.6—13.6
Transmission category[c]					
Injection drug use[e]	300	17.3	200—400	—	—
Heterosexual contact[f]	3,400	5.9	3,000—3,900	—	—
Subtotal[g]	3,800	5.6	3,400—4,200	21.4	19.1—23.8
Total[g]	**15,100**	**2.9**	**14,300—16,000**	**45.3**	**42.8—47.8**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Male					
Age at infection (yr)					
13–24	3,600	6.7	3,100—4,000	98.0	85.2—110.9
25–34	4,600	5.9	4,000—5,100	144.2	127.5—161.0
35–44	1,500	10.8	1,200—1,800	59.2	46.7—71.7
45–54	930	13.9	680—1,200	38.3	27.8—48.7
≥55	740	15.9	510—970	17.8	12.2—23.3
Transmission category[c]					
Male-to-male sexual contact[d]	9,200	4.1	8,400—9,900	—	—
Injection drug use[e]	380	18.5	240—510	—	—
Male-to-male sexual contact[d] and injection drug use[e]	270	21.8	150—380	—	—
Heterosexual contact[f]	1,400	13.1	1,100—1,800	—	—

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Subtotal[g]	11,300	3.8	10,400—12,100	71.0	65.7—76.3
Female					
Age at infection (yr)					
13–24	620	15.4	430—810	17.6	12.3—23.0
25–34	1,000	12.1	770—1,200	31.3	23.9—38.7
35–44	830	13.4	610—1,000	29.9	22.0—37.7
45–54	620	15.3	440—810	22.6	15.8—29.4
≥55	600	15.7	410—780	10.9	7.5—14.2
Transmission category[c]					
Injection drug use[e]	300	22.0	170—430	—	—
Heterosexual contact[f]	3,300	6.8	2,900—3,800	—	—
Subtotal[g]	3,700	6.3	3,200—4,100	20.7	18.1—23.3
Total[g]	**15,000**	**3.3**	**14,000—15,900**	**44.4**	**41.6—47.3**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2019				
Male					
Age at infection (yr)					
13–24	3,400	8.0	2,800—3,900	93.7	79.0—108.5
25–34	4,500	6.9	3,900—5,100	137.1	118.4—155.7
35–44	1,600	11.9	1,200—2,000	62.7	48.0—77.3
45–54	850	16.7	570—1,100	35.5	23.9—47.2
≥55	730	18.5	470—990	17.0	10.9—23.2
Transmission category[c]					
Male-to-male sexual contact[d]	9,000	4.9	8,100—9,800	—	—
Injection drug use[e]	310	24.1	160—460	—	—
Male-to-male sexual contact[d] and injection drug use[e]	250	25.2	130—380	—	—
Heterosexual contact[f]	1,400	14.6	1,000—1,800	—	—
Subtotal[g]	11,000	4.5	10,000—12,000	68.5	62.5—74.5
Female					
Age at infection (yr)					
13–24	540	18.6	340—740	15.5	9.8—21.1
25–34	960	13.9	700—1,200	29.2	21.3—37.2
35–44	730	16.1	500—960	26.1	17.8—34.3
45–54	540	18.5	350—740	20.0	12.7—27.2
≥55	600	17.6	400—810	10.7	7.0—14.4
Transmission category[c]					
Injection drug use[e]	270	24.4	140—400	—	—
Heterosexual contact[f]	3,100	7.9	2,600—3,500	—	—
Subtotal[g]	3,400	7.4	2,900—3,900	18.8	16.1—21.5
Total[g]	**14,400**	**3.8**	**13,300—15,400**	**42.3**	**39.1—45.4**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				
Male					
Age at infection (yr)					
13–24	3,100	10.1	2,500—3,700	84.7	67.9—101.5
25–34	4,700	8.2	4,000—5,500	145.9	122.5—169.4
35–44	1,600	14.3	1,100—2,000	59.7	42.9—76.4
45–54	790	20.7	470—1,100	32.4	19.2—45.5
≥55	660	22.9	360—950	14.8	8.1—21.5
Transmission category[c]					
Male-to-male sexual contact[d]	9,000	5.9	7,900—10,000	—	—
Injection drug use[e]	300	29.8	130—480	—	—
Male-to-male sexual contact[d] and injection drug use[e]	290	28.8	130—450	—	—
Heterosexual contact[f]	1,300	18.1	820—1,700	—	—
Subtotal[g]	10,800	5.4	9,700—12,000	66.1	59.1—73.2
Female					
Age at infection (yr)					
13–24	480	23.2	260—700	13.6	7.4—19.8
25–34	1,000	15.9	690—1,300	30.6	21.1—40.2
35–44	660	19.8	400—920	23.1	14.1—32.1
45–54	450	23.8	240—670	16.8	9.0—24.7
≥55	440	24.0	230—650	7.7	4.1—11.3
Transmission category[c]					
Injection drug use[e]	260	29.9	110—410	—	—
Heterosexual contact[f]	2,800	9.8	2,200—3,300	—	—
Subtotal[g]	3,000	9.2	2,500—3,600	16.8	13.8—19.9
Total[g]	**13,900**	**4.7**	**12,600—15,200**	**40.3**	**36.5—44.0**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
Male					
Age at infection (yr)					
13–24	2,800[h]	11.9	2,200—3,500	77.9	59.7—96.0
25–34	4,000	10.0	3,200—4,700	121.6	97.6—145.5
35–44	1,500	16.3	1,000—2,000	57.0	38.7—75.2
45–54	670	24.9	340—1,000	28.1	14.4—41.8
≥55	770	23.6	410—1,100	17.0	9.1—24.9
Transmission category[c]					
Male-to-male sexual contact[d]	8,100	7.0	7,000—9,200	—	—
Injection drug use[e]	280	*34.7	90—470	—	—
Male-to-male sexual contact[d] and injection drug use[e]	230	*36.7	60—390	—	—
Heterosexual contact[f]	1,200	20.8	700—1,700	—	—
Subtotal[g]	9,800[h]	6.4	8,500—11,000	59.2	51.7—66.7
Female					
Age at infection (yr)					
13–24	440	25.6	220—660	12.5	6.2—18.7

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
25–34	960	17.3	640—1,300	29.3	19.4—39.3
35–44	700	20.3	420—980	24.3	14.6—33.9
45–54	540	23.0	300—790	20.3	11.1—29.5
≥55	540	23.2	290—780	9.2	5.0—13.4
Transmission category[c]					
Injection drug use[e]	250	*34.4	80—420	—	—
Heterosexual contact[f]	2,900	10.0	2,300—3,500	—	—
Subtotal[g]	3,200	9.5	2,600—3,800	17.5	14.2—20.8
Total[g]	**13,000[h]**	**5.4**	**11,600—14,300**	**37.3**	**33.4—41.3**

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE >50% are not shown and are replaced with an ellipsis (…).

[a]Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data.
[b]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c]Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[d]Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[e]Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[f]Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[g]Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[h]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 3. Estimated HIV incidence among Hispanic/Latino persons aged ≥13 years, by year of infection, assigned sex at birth, and selected characteristics, 2017–2021—United States

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Male					
Age at infection (yr)					
13–24	2,400	7.8	2,000—2,800	40.0	33.8—46.1
25–34	3,700	6.2	3,200—4,100	75.7	66.5—85.0
35–44	1,600	9.5	1,300—1,900	37.7	30.6—44.8
45–54	880	13.1	650—1,100	25.7	19.1—32.3
≥55	370	21.2	210—520	9.1	5.3—12.8
Transmission category[c]					
Male-to-male sexual contact[d]	7,800	4.3	7,200—8,500	—	—
Injection drug use[e]	280	22.0	160—400	—	—

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Male-to-male sexual contact[d] and injection drug use[e]	340	20.0	200—470	—	—
Heterosexual contact[f]	520	21.6	300—740	—	—
Subtotal[g]	8,900	4.0	8,200—9,700	39.5	36.4—42.7
Female					
Age at infection (yr)					
13–24	220	23.6	120—320	3.8	2.0—5.6
25–34	370	18.1	240—500	8.4	5.4—11.4
35–44	270	20.9	160—380	6.7	3.9—9.4
45–54	200	24.8	100—290	5.8	3.0—8.7
≥55	130	*30.7	50—200	2.7	1.1—4.3
Transmission category[c]					
Injection drug use[e]	190	21.4	110—260	—	—
Heterosexual contact[f]	990	11.4	770—1,200	—	—
Subtotal[g]	1,200	10.1	950—1,400	5.3	4.2—6.3
Total[g]	**10,100**	**3.8**	**9,400—10,900**	**22.5**	**20.9—24.2**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Male					
Age at infection (yr)					
13–24	2,200	9.3	1,800—2,600	36.4	29.8—43.1
25–34	3,800	7.1	3,200—4,300	76.5	65.8—87.1
35–44	1,700	10.7	1,300—2,100	38.7	30.6—46.8
45–54	860	15.3	600—1,100	24.4	17.1—31.7
≥55	390	23.2	210—570	9.2	5.0—13.4
Transmission category[c]					
Male-to-male sexual contact[d]	7,800	4.9	7,000—8,500	—	—
Injection drug use[e]	290	24.0	160—430	—	—
Male-to-male sexual contact[d] and injection drug use[e]	360	21.1	210—510	—	—
Heterosexual contact[f]	520	24.3	270—760	—	—
Subtotal[g]	8,900	4.6	8,100—9,700	38.5	35.0—42.1
Female					
Age at infection (yr)					
13–24	190	28.3	90—300	3.3	1.5—5.2
25–34	340	21.3	200—490	7.7	4.5—10.9
35–44	310	22.1	180—450	7.5	4.3—10.8
45–54	180	28.9	80—290	5.3	2.3—8.3
≥55	130	*34.9	40—220	2.6	0.8—4.3
Transmission category[c]					
Injection drug use[e]	160	26.8	80—250	—	—
Heterosexual contact[f]	990	12.7	740—1,200	—	—
Subtotal[g]	1,200	11.5	900—1,400	5.1	3.9—6.2
Total[g]	**10,100**	**4.3**	**9,200—10,900**	**21.9**	**20.1—23.8**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2019				
Male					
Age at infection (yr)					
13–24	2,000	11.3	1,500—2,400	32.2	25.0—39.4
25–34	3,700	8.3	3,100—4,300	73.4	61.4—85.4
35–44	1,700	12.3	1,300—2,100	37.9	28.7—47.0
45–54	860	17.6	570—1,200	24.1	15.8—32.4
≥55	380	26.7	180—580	8.6	4.1—13.1
Transmission category[c]					
Male-to-male sexual contact[d]	7,400	5.9	6,500—8,200	—	—
Injection drug use[e]	290	27.8	130—450	—	—
Male-to-male sexual contact[d] and injection drug use[e]	420	21.1	250—590	—	—
Heterosexual contact[f]	480	28.4	210—750	—	—
Subtotal[g]	8,600	5.5	7,600—9,500	36.3	32.4—40.1
Female					
Age at infection (yr)					
13–24	160	*34.9	50—270	2.8	0.9—4.6
25–34	330	24.7	170—480	7.2	3.7—10.6
35–44	280	26.6	130—420	6.6	3.1—10.0
45–54	180	*33.4	60—290	5.0	1.7—8.4
≥55	100	*43.7	10—190	2.0	0.3—3.7
Transmission category[c]					
Injection drug use[e]	160	*31.2	60—260	—	—
Heterosexual contact[f]	880	15.4	620—1,100	—	—
Subtotal[g]	1,000	13.8	760—1,300	4.5	3.3—5.7
Total[g]	**9,600**	**5.1**	**8,600—10,600**	**20.5**	**18.4—22.5**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				
Male					
Age at infection (yr)					
13–24	1,700	14.9	1,200—2,100	26.1	18.5—33.8
25–34	3,600	10.2	2,900—4,300	72.7	58.2—87.2
35–44	1,700	14.7	1,200—2,200	37.6	26.8—48.4
45–54	820	21.6	470—1,200	21.8	12.6—31.0
≥55	350	*34.0	120—580	7.3	2.4—12.2
Transmission category[c]					
Male-to-male sexual contact[d]	7,200	7.2	6,200—8,200	—	—
Injection drug use[e]	260	*35.6	80—450	—	—
Male-to-male sexual contact[d] and injection drug use[e]	330	28.7	150—520	—	—
Heterosexual contact[f]	370	*39.8	80—660	—	—
Subtotal[g]	8,200	6.8	7,100—9,200	33.4	29.0—37.8
Female					
Age at infection (yr)					
13–24	180	*39.6	40—330	3.0	0.7—5.4

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				
25–34	340	28.8	150—530	7.4	3.2—11.5
35–44	200	*37.6	50—350	4.7	1.2—8.1
45–54	130	*46.5	10—250	3.7	0.3—7.0
≥55	…	…	…	…	…
Transmission category[c]					
Injection drug use[e]	160	*39.1	40—280	—	—
Heterosexual contact[f]	790	19.4	490—1,100	—	—
Subtotal[g]	960	17.3	630—1,300	4.0	2.6—5.4
Total[g]	**9,100**	**6.3**	**8,000—10,200**	**18.9**	**16.5—21.2**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
Male					
Age at infection (yr)					
13–24	1,500[h]	17.7	950—2,000	22.6	14.8—30.5
25–34	3,600	11.2	2,800—4,400	73.7	57.5—89.9
35–44	1,800	16.0	1,300—2,400	38.9	26.7—51.1
45–54	830	24.0	440—1,200	21.6	11.5—31.8
≥55	450	*33.0	160—740	9.0	3.2—14.7
Transmission category[c]					
Male-to-male sexual contact[d]	7,200	7.9	6,100—8,400	—	—
Injection drug use[e]	270	*39.9	60—480	—	—
Male-to-male sexual contact[d] and injection drug use[e]	280	*36.5	80—480	—	—
Heterosexual contact[f]	420	*40.4	90—750	—	—
Subtotal[g]	8,200	7.5	7,000—9,400	32.9	28.1—37.8
Female					
Age at infection (yr)					
13–24	180	*40.7	40—330	3.0	0.6—5.4
25–34	320	*30.8	130—520	7.0	2.8—11.2
35–44	310	*31.5	120—500	7.2	2.7—11.6
45–54	180	*41.5	30—320	4.8	0.9—8.8
≥55	120	*49.8	0—240	2.2	0.0—4.4
Transmission category[c]					
Injection drug use[e]	150	*45.4	20—280	—	—
Heterosexual contact[f]	960	17.9	620—1,300	—	—
Subtotal[g]	1,100	16.6	760—1,500	4.6	3.1—6.1
Total[g]	**9,300**	**6.9**	**8,100—10,600**	**18.9**	**16.4—21.5**

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE >50% are not shown and are replaced with an ellipsis (…).
Hispanic/Latino persons can be of any race.

[a]Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data.

[b]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.

[c]Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.

[d]Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

[e]Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

[f]Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.

[g]Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

[h]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 4. Estimated HIV incidence among White persons aged ≥13 years, by year of infection, assigned sex at birth, and selected characteristics, 2017–2021—United States

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2017				
Male					
Age at infection (yr)					
13–24	1,300	9.9	1,000—1,500	9.2	7.4—10.9
25–34	2,700	6.8	2,400—3,100	21.3	18.4—24.1
35–44	1,500	9.1	1,200—1,800	12.8	10.5—15.1
45–54	1,200	10.2	960—1,400	9.0	7.2—10.8
≥55	820	12.5	620—1,000	2.6	1.9—3.2
Transmission category[c]					
Male-to-male sexual contact[d]	5,800	4.7	5,300—6,300	—	—
Injection drug use[e]	640	13.8	470—820	—	—
Male-to-male sexual contact[d] and injection drug use[e]	710	11.7	550—870	—	—
Heterosexual contact[f]	390	22.3	220—560	—	—
Subtotal[g]	7,500	4.1	6,900—8,100	9.0	8.2—9.7
Female					
Age at infection (yr)					
13–24	230	21.5	140—330	1.8	1.0—2.5
25–34	510	14.4	360—650	4.1	2.9—5.2
35–44	360	16.8	240—480	3.1	2.1—4.2
45–54	240	21.3	140—340	1.8	1.0—2.5
≥55	140	28.4	60—210	0.4	0.2—0.6
Transmission category[c]					
Injection drug use[e]	570	12.5	430—710	—	—
Heterosexual contact[f]	900	11.2	700—1,100	—	—
Subtotal[g]	1,500	8.4	1,200—1,700	1.7	1.4—2.0
Total[g]	**9,000**	**3.7**	**8,400—9,700**	**5.3**	**4.9—5.6**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2018				
Male					
Age at infection (yr)					
13–24	1,100	12.0	860—1,400	8.1	6.2—10.0
25–34	2,800	7.5	2,400—3,200	21.7	18.5—24.9
35–44	1,600	10.0	1,300—1,900	13.7	11.0—16.4
45–54	1,100	12.0	880—1,400	8.8	6.7—10.9
≥55	810	14.3	580—1,000	2.5	1.8—3.2
Transmission category[c]					
Male-to-male sexual contact[d]	5,500	5.4	5,000—6,100	—	—
Injection drug use[e]	740	14.9	520—960	—	—
Male-to-male sexual contact[d] and injection drug use[e]	780	12.2	590—970	—	—
Heterosexual contact[f]	410	24.2	220—610	—	—
Subtotal[g]	7,500	4.6	6,800—8,200	8.9	8.1—9.7
Female					
Age at infection (yr)					
13–24	200	25.8	100—310	1.5	0.8—2.3
25–34	520	15.9	360—680	4.2	2.9—5.5
35–44	400	18.3	250—540	3.4	2.2—4.6
45–54	240	24.0	130—350	1.8	1.0—2.7
≥55	140	*31.6	50—220	0.4	0.1—0.6
Transmission category[c]					
Injection drug use[e]	610	14.1	440—770	—	—
Heterosexual contact[f]	880	12.9	660—1,100	—	—
Subtotal[g]	1,500	9.4	1,200—1,800	1.7	1.4—2.0
Total[g]	**9,000**	**4.2**	**8,200—9,700**	**5.2**	**4.8—5.7**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2019				
Male					
Age at infection (yr)					
13–24	990	14.4	710—1,300	7.1	5.1—9.2
25–34	2,700	8.6	2,300—3,200	21.4	17.8—25.0
35–44	1,600	11.3	1,300—2,000	13.8	10.7—16.8
45–54	1,000	14.1	760—1,300	8.3	6.0—10.7
≥55	820	16.1	560—1,100	2.5	1.7—3.3
Transmission category[c]					
Male-to-male sexual contact[d]	5,300	6.2	4,600—5,900	—	—
Injection drug use[e]	770	17.5	510—1,000	—	—
Male-to-male sexual contact[d] and injection drug use[e]	740	14.4	530—950	—	—
Heterosexual contact[f]	430	26.3	210—650	—	—
Subtotal[g]	7,200	5.4	6,500—8,000	8.6	7.7—9.5
Female					
Age at infection (yr)					
13–24	200	29.2	90—310	1.5	0.7—2.4

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2019				
25–34	560	17.2	370—750	4.5	3.0—6.1
35–44	390	20.6	230—550	3.4	2.0—4.7
45–54	270	25.1	140—400	2.1	1.1—3.2
≥55	160	*33.0	60—260	0.4	0.1—0.7
Transmission category[c]					
Injection drug use[e]	650	15.5	450—840	—	—
Heterosexual contact[f]	930	14.0	670—1,200	—	—
Subtotal[g]	1,600	10.3	1,300—1,900	1.8	1.4—2.2
Total[g]	**8,800**	**4.8**	**8,000—9,600**	**5.1**	**4.7—5.6**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2020 (COVID-19 Pandemic)[b]				
Male					
Age at infection (yr)					
13–24	890	17.6	580—1,200	6.4	4.2—8.6
25–34	2,700	10.2	2,200—3,300	21.8	17.4—26.1
35–44	1,700	13.2	1,200—2,100	13.5	10.0—17.0
45–54	1,000	16.6	710—1,400	8.3	5.6—11.0
≥55	870	18.1	560—1,200	2.6	1.7—3.5
Transmission category[c]					
Male-to-male sexual contact[d]	5,200	7.2	4,500—6,000	—	—
Injection drug use[e]	920	19.6	570—1,300	—	—
Male-to-male sexual contact[d] and injection drug use[e]	680	18.0	440—920	—	—
Heterosexual contact[f]	350	*35.5	110—600	—	—
Subtotal[g]	7,200	6.3	6,300—8,100	8.5	7.4—9.5
Female					
Age at infection (yr)					
13–24	200	*34.2	70—340	1.5	0.5—2.6
25–34	520	21.6	300—740	4.2	2.4—6.0
35–44	410	24.3	220—610	3.4	1.8—5.1
45–54	230	*32.1	90—380	1.9	0.7—3.1
≥55	200	*34.8	60—330	0.5	0.2—0.9
Transmission category[c]					
Injection drug use[e]	540	22.1	310—780	—	—
Heterosexual contact[f]	1,000	15.2	710—1,300	—	—
Subtotal[g]	1,600	12.4	1,200—1,900	1.8	1.4—2.2
Total[g]	**8,800**	**5.6**	**7,800—9,700**	**5.1**	**4.5—5.7**

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
Male					
Age at infection (yr)					
13–24	720[h]	21.8	410—1,000	5.2	3.0—7.4
25–34	2,600	11.6	2,000—3,200	20.7	16.0—25.4

	No	RSE (%)	95% CI	Rate[a]	95% CI
	2021[b]				
35–44	1,600	15.1	1,100—2,100	12.8	9.0—16.6
45–54	930	19.6	570—1,300	7.5	4.6—10.4
≥55	770	21.7	440—1,100	2.3	1.3—3.2
Transmission category[c]					
Male-to-male sexual contact[d]	4,800[h]	8.4	4,000—5,500	—	—
Injection drug use[e]	810	24.4	420—1,200	—	—
Male-to-male sexual contact[d] and injection drug use[e]	680	19.7	410—940	—	—
Heterosexual contact[f]	340	*38.7	80—600	—	—
Subtotal[g]	6,600	7.3	5,600—7,500	7.8	6.7—8.9
Female					
Age at infection (yr)					
13–24	200	*38.1	50—350	1.5	0.4—2.7
25–34	470	25.4	230—700	3.9	1.9—5.8
35–44	430	26.2	210—660	3.6	1.7—5.4
45–54	290	*32.0	110—480	2.4	0.9—3.9
≥55	200	*37.9	50—350	0.5	0.1—0.9
Transmission category[c]					
Injection drug use[e]	610	23.3	330—890	—	—
Heterosexual contact[f]	970	16.9	650—1,300	—	—
Subtotal[g]	1,600	13.6	1,200—2,000	1.8	1.3—2.3
Total[g]	**8,200**	**6.5**	**7,100—9,200**	**4.8**	**4.2—5.4**

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE >50% are not shown and are replaced with an ellipsis (…).

[a]Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data.
[b]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c]Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[d]Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[e]Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[f]Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[g]Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[h]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 5. Estimated HIV incidence among males, based on assigned sex at birth, with HIV attributed to male-to-male sexual contact, by year of infection, race/ethnicity, and age at infection, 2017–2021—United States

	No.	RSE (%)	95% CI
	2017		
Black/African American			
Age at infection (yr)			
13–24	3,700	5.7	3,300—4,100
25–34	3,700	5.6	3,300—4,200
35–44	1,000	10.6	820—1,300
45–54	540	14.8	380—700
≥55	270	21.0	160—390
Subtotal	9,300	3.6	8,600—9,900
Hispanic/Latino[b]			
Age at infection (yr)			
13–24	2,200	8.1	1,900—2,600
25–34	3,300	6.5	2,900—3,700
35–44	1,400	10.2	1,100—1,600
45–54	710	14.2	510—910
≥55	240	24.2	130—350
Subtotal	7,800	4.3	7,200—8,500
White			
Age at infection (yr)			
13–24	1,100	11.0	840—1,300
25–34	2,100	7.7	1,800—2,400
35–44	1,100	10.8	840—1,300
45–54	920	11.7	710—1,100
≥55	650	13.9	470—820
Subtotal	5,800	4.7	5,300—6,300
All[c]			
Age at infection (yr)			
13–24	7,400	4.2	6,800—8,000
25–34	9,800	3.6	9,100—10,500
35–44	3,700	5.9	3,300—4,200
45–54	2,300	7.5	2,000—2,700
≥55	1,200	10.3	960—1,500
Total[c]	**24,500**	**2.3**	**23,400—25,600**

	No.	RSE (%)	95% CI
	2018		
Black/African American			
Age at infection (yr)			
13–24	3,300	6.8	2,900—3,800
25–34	3,900	6.3	3,500—4,400

	No.	RSE (%)	95% CI
	2018		
35–44	1,000	12.3	780—1,300
45–54	550	17.1	360—730
≥55	320	23.2	170—460
Subtotal	9,200	4.1	8,400—9,900
Hispanic/Latino[b]			
Age at infection (yr)			
13–24	2,100	9.6	1,700—2,500
25–34	3,300	7.5	2,800—3,800
35–44	1,400	11.5	1,100—1,700
45–54	670	16.8	450—890
≥55	270	26.5	130—410
Subtotal	7,800	4.9	7,000—8,500
White			
Age at infection (yr)			
13–24	950	13.1	710—1,200
25–34	2,000	9.0	1,600—2,300
35–44	1,100	12.0	840—1,400
45–54	860	13.7	630—1,100
≥55	660	15.6	450—860
Subtotal	5,500	5.4	5,000—6,100
All[c]			
Age at infection (yr)			
13–24	6,800	5.0	6,100—7,400
25–34	9,900	4.1	9,100—10,700
35–44	3,700	6.7	3,300—4,200
45–54	2,200	8.8	1,800—2,600
≥55	1,300	11.4	1,000—1,600
Total[c]	**23,900**	**2.7**	**22,700—25,200**

	No.	RSE (%)	95% CI
	2019		
Black/African American			
Age at infection (yr)			
13–24	3,200	8.2	2,600—3,700
25–34	3,900	7.4	3,300—4,400
35–44	1,100	13.6	840—1,400
45–54	510	20.6	300—710
≥55	320	26.0	160—490
Subtotal	9,000	4.9	8,100—9,800
Hispanic/Latino[b]			
Age at infection (yr)			
13–24	1,800	11.8	1,400—2,200
25–34	3,200	8.9	2,600—3,800
35–44	1,400	13.5	1,000—1,800

	No.	RSE (%)	95% CI
	2019		
45–54	680	19.4	420—930
≥55	260	*31.3	100—420
Subtotal	7,400	5.9	6,500—8,200
White			
Age at infection (yr)			
13–24	830	15.7	570—1,100
25–34	1,900	10.2	1,600—2,300
35–44	1,100	13.6	800—1,400
45–54	780	16.2	530—1,000
≥55	650	17.8	420—870
Subtotal	5,300	6.2	4,600—5,900
All[c]			
Age at infection (yr)			
13–24	6,200	6.0	5,400—6,900
25–34	9,600	4.8	8,700—10,500
35–44	3,900	7.5	3,400—4,500
45–54	2,100	10.4	1,600—2,500
≥55	1,300	13.1	960—1,600
Total[c]	**23,100**	**3.1**	**21,700—24,500**

	No.	RSE (%)	95% CI
	2020 (COVID-19 Pandemic)[a]		
Black/African American			
Age at infection (yr)			
13–24	2,800	10.5	2,300—3,400
25–34	4,200	8.7	3,400—4,900
35–44	1,200	16.2	810—1,600
45–54	480	25.7	240—720
≥55	300	*32.6	110—500
Subtotal	9,000	5.9	7,900—10,000
Hispanic/Latino[b]			
Age at infection (yr)			
13–24	1,500	15.5	1,100—2,000
25–34	3,200	10.8	2,500—3,900
35–44	1,500	15.6	1,100—2,000
45–54	670	23.5	360—970
≥55	260	*37.9	70—450
Subtotal	7,200	7.2	6,200—8,200
White			
Age at infection (yr)			
13–24	780	18.7	490—1,100
25–34	1,900	11.8	1,500—2,400
35–44	1,000	16.5	680—1,300
45–54	790	18.6	500—1,100

	No.	RSE (%)	95% CI
	2020 (COVID-19 Pandemic)[a]		
≥55	730	19.3	460—1,000
Subtotal	5,200	7.2	4,500—6,000
All[c]			
Age at infection (yr)			
13–24	5,500	7.7	4,700—6,300
25–34	9,800	5.7	8,700—11,000
35–44	4,000	9.0	3,300—4,700
45–54	2,000	12.4	1,600—2,500
≥55	1,400	14.9	960—1,800
Total[c]	**22,700**	**3.8**	**21,000—24,400**

	No.	RSE (%)	95% CI
	2021[a]		
Black/African American			
Age at infection (yr)			
13–24	2,700[d]	12.2	2,000—3,300
25–34	3,500	10.7	2,800—4,200
35–44	1,100	19.1	690—1,500
45–54	420	*30.8	170—670
≥55	390	*32.0	140—630
Subtotal	8,100	7.0	7,000—9,200
Hispanic/Latino[b]			
Age at infection (yr)			
13–24	1,400[d]	18.2	880—1,900
25–34	3,300	11.8	2,500—4,000
35–44	1,600	16.9	1,100—2,100
45–54	660	26.3	320—1,000
≥55	320	*38.0	80—560
Subtotal	7,200	7.9	6,100—8,400
White			
Age at infection (yr)			
13–24	610[d]	23.3	330—890
25–34	1,900	13.4	1,400—2,400
35–44	1,100	17.8	680—1,400
45–54	650	22.7	360—940
≥55	580	24.0	310—850
Subtotal	4,800[d]	8.4	4,000—5,500
All[c]			
Age at infection (yr)			
13–24	4,900[d]	9.1	4,000—5,800
25–34	9,100	6.7	7,900—10,300
35–44	4,000	10.0	3,200—4,800
45–54	1,800	14.8	1,300—2,300
≥55	1,400	16.9	900—1,800

	No.	RSE (%)	95% CI
	2021[a]		
Total[c]	21,100[d]	4.4	19,300—23,000

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%-50%, preceded by an asterisk(*), should be used with caution.

[a]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[b]Hispanic/Latino persons can be of any race.
[c]Includes data for all race/ethnicities.
[d]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 6. Estimated HIV incidence among persons aged ≥ 13 years, by area of residence, 2017–2021—United States and Puerto Rico

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
	2017						
Alabama	620	13.9	450	790	15.1	11.0	19.3
Alaska	…	…	…	…	…	…	…
Arizona	800	13.0	590	1,000	13.6	10.1	17.1
Arkansas	300	23.7	160	430	11.9	6.4	17.4
California	4,600	5.2	4,200	5,100	14.1	12.7	15.6
Colorado	440	17.1	290	580	9.3	6.1	12.4
Connecticut	250	22.5	140	350	8.0	4.5	11.6
Delaware	120	*33.1	40	200	15.1	5.3	24.9
District of Columbia	230	24.8	120	340	38.6	19.8	57.4
Florida	4,400	5.3	3,900	4,800	24.4	21.9	27.0
Georgia	2,600	7.4	2,200	3,000	29.9	25.5	34.2
Hawaii	80	*41.5	10	150	6.7	1.2	12.2
Idaho	…	…	…	…	…	…	…
Illinois	1,300	9.8	1,000	1,500	11.9	9.6	14.2
Indiana	510	16.0	350	670	9.2	6.3	12.2
Iowa	100	*36.8	30	180	4.0	1.1	6.8
Kansas	90	*43.0	10	170	3.9	0.6	7.2
Kentucky	330	19.9	200	460	8.9	5.4	12.3
Louisiana	920	12.0	700	1,100	23.7	18.1	29.3
Maine	…	…	…	…	…	…	…
Maryland	770	13.4	570	970	15.2	11.2	19.2
Massachusetts	500	15.1	350	650	8.4	6.0	10.9
Michigan	660	13.7	480	840	7.8	5.7	9.9
Minnesota	250	22.6	140	360	5.4	3.0	7.8
Mississippi	420	18.6	270	580	17.1	10.9	23.4
Missouri	540	13.4	400	690	10.6	7.8	13.4

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2017							
Montana	...	...	...	...	...	...	...
Nebraska	110	*35.2	30	180	6.7	2.1	11.3
Nevada	530	16.1	370	700	21.6	14.8	28.4
New Hampshire	...	...	...	...	...	...	...
New Jersey[c]	1,100	12.2	820	1,300	14.4	10.9	17.8
New Mexico	140	26.3	70	210	7.9	3.8	12.0
New York	2,200	7.6	1,900	2,600	13.4	11.4	15.4
North Carolina	1,300	9.5	1,000	1,500	14.8	12.0	17.5
North Dakota	...	...	...	...	...	...	...
Ohio	920	11.7	710	1,100	9.4	7.2	11.5
Oklahoma	340	18.9	220	470	10.6	6.7	14.6
Oregon	190	26.1	90	290	5.4	2.6	8.1
Pennsylvania[c]	980	12.9	740	1,200	9.0	6.7	11.3
Puerto Rico[c]	410	18.6	260	560	14.3	9.1	19.6
Rhode Island	80	*34.5	30	140	9.1	2.9	15.2
South Carolina	690	15.0	480	890	16.2	11.4	21.0
South Dakota	...	...	...	...	...	...	...
Tennessee	750	12.0	570	930	13.3	10.2	16.4
Texas	4,400	5.5	3,900	4,800	19.0	17.0	21.1
Utah	130	*34.1	40	220	5.4	1.8	8.9
Vermont	...	...	...	...	...	...	...
Virginia	850	12.8	630	1,100	11.9	8.9	14.9
Washington	450	17.1	300	600	7.2	4.8	9.7
West Virginia	110	*37.7	30	200	7.3	1.9	12.6
Wisconsin	250	23.1	130	360	5.0	2.8	7.3
Wyoming	...	...	...	...	...	...	...

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2018							
Alabama	570	16.7	390	760	14.0	9.4	18.5
Alaska	...	...	...	...	...	...	...
Arizona	820	14.9	580	1,100	13.7	9.7	17.7
Arkansas	260	29.6	110	410	10.3	4.3	16.4
California	4,700	5.9	4,100	5,200	14.2	12.5	15.8
Colorado	400	21.0	230	560	8.3	4.9	11.7
Connecticut	210	28.6	90	320	6.7	2.9	10.5
Delaware	90	*48.7	0	170	10.6	0.5	20.8
District of Columbia	230	26.7	110	350	38.2	18.2	58.3
Florida	4,100	6.3	3,600	4,700	22.7	19.9	25.5
Georgia	2,500	8.7	2,100	3,000	29.0	24.1	34.0
Hawaii	...	...	...	...	...	...	...
Idaho	...	...	...	...	...	...	...
Illinois	1,300	11.1	1,000	1,600	12.2	9.5	14.8
Indiana	550	17.4	360	740	9.9	6.5	13.2
Iowa	120	*37.7	30	210	4.7	1.2	8.2

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2018							
Kansas	120	*40.8	20	210	4.9	1.0	8.9
Kentucky	440	18.9	270	600	11.7	7.4	16.0
Louisiana	950	13.3	700	1,200	24.6	18.1	31.0
Maine	...	...	...	...	...	...	...
Maryland	840	13.8	610	1,100	16.5	12.0	20.9
Massachusetts	590	15.0	420	760	9.9	7.0	12.8
Michigan	640	15.7	440	840	7.6	5.3	9.9
Minnesota	310	22.7	170	450	6.6	3.7	9.6
Mississippi	440	21.2	260	630	17.9	10.5	25.3
Missouri	480	16.8	320	640	9.4	6.3	12.5
Montana	...	...	...	...	...	...	...
Nebraska	...	...	...	...	...	...	...
Nevada	590	17.7	380	790	23.2	15.1	31.3
New Hampshire	...	...	...	...	...	...	...
New Jersey[c]	920	15.2	650	1,200	12.3	8.6	15.9
New Mexico	190	25.6	90	280	10.7	5.3	16.0
New York	2,000	9.1	1,700	2,400	12.2	10.1	14.4
North Carolina	1,200	11.0	970	1,500	14.2	11.1	17.2
North Dakota	...	...	...	...	...	...	...
Ohio	890	13.6	660	1,100	9.1	6.7	11.5
Oklahoma	340	22.3	190	480	10.3	5.8	14.8
Oregon	170	*31.4	70	280	4.9	1.9	7.9
Pennsylvania[c]	1,000	13.3	760	1,300	9.4	6.9	11.8
Puerto Rico[c]	350	22.4	200	510	12.7	7.1	18.2
Rhode Island	60	*47.7	0	120	6.6	0.4	12.9
South Carolina	700	17.2	460	930	16.2	10.7	21.6
South Dakota	...	...	...	...	...	...	...
Tennessee	740	13.8	540	940	12.9	9.4	16.5
Texas	4,500	6.2	3,900	5,000	19.1	16.8	21.4
Utah	140	*37.1	40	240	5.7	1.5	9.8
Vermont	...	...	...	...	...	...	...
Virginia	820	14.9	580	1,100	11.4	8.1	14.7
Washington	540	17.5	360	730	8.6	5.6	11.5
West Virginia	170	*35.4	50	300	11.3	3.5	19.2
Wisconsin	210	29.5	90	330	4.3	1.8	6.8
Wyoming	...	...	...	...	...	...	...

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2019							
Alabama	540	19.9	330	750	13.1	8.0	18.2
Alaska	...	...	...	...	...	...	...
Arizona	760	18.1	490	1,000	12.4	8.0	16.8
Arkansas	330	28.5	150	510	13.0	5.8	20.3
California	4,300	7.1	3,700	4,900	13.1	11.3	14.9
Colorado	460	21.9	260	650	9.4	5.4	13.4

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2019							
Connecticut	160	*37.9	40	290	5.4	1.4	9.4
Delaware	...	...	...	...	...	...	...
District of Columbia	190	*33.5	70	320	32.0	11.0	53.0
Florida	3,900	7.4	3,400	4,500	21.3	18.2	24.4
Georgia	2,400	10.3	1,900	2,900	27.3	21.8	32.8
Hawaii	...	...	...	...	...	...	...
Idaho	...	...	...	...	...	...	...
Illinois	1,200	13.6	850	1,500	10.8	7.9	13.7
Indiana	500	21.5	290	710	8.9	5.1	12.7
Iowa	140	*39.2	30	250	5.5	1.3	9.6
Kansas	190	*33.4	60	310	7.8	2.7	12.9
Kentucky	380	24.3	200	560	10.0	5.3	14.8
Louisiana	840	16.8	560	1,100	21.8	14.6	28.9
Maine	...	...	...	...	...	...	...
Maryland	730	16.9	490	970	14.3	9.6	19.1
Massachusetts	460	19.8	280	640	7.8	4.7	10.8
Michigan	600	18.7	380	820	7.1	4.5	9.7
Minnesota	270	27.8	120	420	5.8	2.6	8.9
Mississippi	470	23.9	250	690	18.8	10.0	27.6
Missouri	460	19.2	290	630	8.9	5.6	12.3
Montana	...	...	...	...	...	...	...
Nebraska	...	...	...	...	...	...	...
Nevada	590	21.0	350	830	22.8	13.4	32.2
New Hampshire	...	...	...	...	...	...	...
New Jersey[c]	1,000	16.0	680	1,300	13.3	9.1	17.4
New Mexico	160	*32.1	60	270	9.3	3.5	15.2
New York	1,900	10.6	1,500	2,300	11.5	9.1	13.9
North Carolina	1,400	11.5	1,100	1,700	15.7	12.1	19.2
North Dakota	...	...	...	...	...	...	...
Ohio	860	15.8	590	1,100	8.7	6.0	11.4
Oklahoma	430	21.9	250	620	13.3	7.6	19.0
Oregon	190	*33.2	70	320	5.3	1.8	8.8
Pennsylvania[c]	860	15.8	600	1,100	7.9	5.4	10.3
Puerto Rico[c]	320	26.7	150	490	11.3	5.4	17.3
Rhode Island	...	...	...	...	...	...	...
South Carolina	670	20.2	400	930	15.3	9.2	21.3
South Dakota	...	...	...	...	...	...	...
Tennessee	800	14.5	570	1,000	14.0	10.0	18.0
Texas	4,500	7.0	3,900	5,100	18.9	16.3	21.5
Utah	140	*42.0	30	260	5.6	1.0	10.3
Vermont	...	...	...	...	...	...	...
Virginia	800	17.1	530	1,100	11.0	7.3	14.7
Washington	510	21.0	300	720	8.0	4.7	11.3
West Virginia	260	*34.1	90	430	16.8	5.6	28.0
Wisconsin	220	*33.1	80	360	4.4	1.5	7.2

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2019							
Wyoming	...	...	...	...	...	...	...

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2020 (COVID-19 Pandemic)[b]							
Alabama	590	21.3	340	830	13.9	8.1	19.7
Alaska	...	...	...	...	...	...	...
Arizona	720	22.9	390	1,000	11.9	6.5	17.2
Arkansas	360	*32.2	130	580	14.1	5.2	23.1
California	4,300	8.3	3,600	5,000	13.1	11.0	15.2
Colorado	370	*30.3	150	590	7.5	3.0	12.0
Connecticut	200	*40.4	40	360	6.5	1.3	11.6
Delaware	...	...	...	...	...	...	...
District of Columbia	140	*47.9	10	280	24.3	1.5	47.1
Florida	3,800	9.0	3,100	4,500	20.6	17.0	24.3
Georgia	2,300	12.9	1,700	2,900	25.7	19.2	32.3
Hawaii	...	...	...	...	...	...	...
Idaho	...	...	...	...	...	...	...
Illinois	1,100	16.5	780	1,500	10.6	7.2	14.1
Indiana	630	22.4	350	900	11.1	6.2	16.0
Iowa	...	...	...	...	...	...	...
Kansas	160	*43.7	20	300	6.6	1.0	12.3
Kentucky	390	29.3	170	620	10.4	4.4	16.4
Louisiana	880	19.6	540	1,200	22.6	13.9	31.3
Maine	...	...	...	...	...	...	...
Maryland	680	20.3	410	940	13.0	7.8	18.2
Massachusetts	350	26.6	170	530	5.8	2.8	8.8
Michigan	630	21.6	360	890	7.3	4.2	10.4
Minnesota	240	*34.9	80	410	5.1	1.6	8.6
Mississippi	460	28.9	200	720	18.7	8.1	29.3
Missouri	440	24.6	230	660	8.6	4.4	12.8
Montana	...	...	...	...	...	...	...
Nebraska	...	...	...	...	...	...	...
Nevada	610	25.3	300	910	23.2	11.7	34.7
New Hampshire	...	...	...	...	...	...	...
New Jersey[c]	970	20.3	580	1,400	12.3	7.4	17.3
New Mexico	140	*43.0	20	260	7.9	1.2	14.5
New York	1,900	12.4	1,400	2,400	11.0	8.4	13.7
North Carolina	1,200	15.5	800	1,500	13.0	9.1	17.0
North Dakota	...	...	...	...	...	...	...
Ohio	810	18.7	510	1,100	8.1	5.1	11.1
Oklahoma	390	28.4	170	610	11.9	5.3	18.5
Oregon	210	*38.8	50	370	5.9	1.4	10.3
Pennsylvania[c]	850	18.8	540	1,200	7.7	4.9	10.6
Puerto Rico[c]	280	*33.6	100	470	9.7	3.3	16.1
Rhode Island	...	...	...	...	...	...	...

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2020 (COVID-19 Pandemic)[b]							
South Carolina	630	23.7	340	920	14.5	7.7	21.3
South Dakota	...	...	...	...	...	...	...
Tennessee	700	19.1	440	960	12.0	7.5	16.5
Texas	4,200	8.8	3,500	5,000	17.8	14.7	20.8
Utah	...	...	...	...	...	...	...
Vermont	...	...	...	...	...	...	...
Virginia	720	21.3	420	1,000	9.9	5.7	14.0
Washington	450	27.2	210	690	6.9	3.2	10.6
West Virginia	...	...	...	...	...	...	...
Wisconsin	300	*31.9	110	490	6.1	2.3	9.9
Wyoming	...	...	...	...	...	...	...

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2021[b]							
Alabama	670	22.3	380	970	15.8	8.9	22.7
Alaska	...	...	...	...	...	...	...
Arizona	780	24.0	410	1,200	12.7	6.7	18.7
Arkansas	380	*33.4	130	640	15.2	5.2	25.1
California	4,000	9.8	3,200	4,700	12.0	9.7	14.4
Colorado	490	28.6	210	760	9.8	4.3	15.3
Connecticut	180	*44.4	20	330	5.7	0.7	10.6
Delaware	...	...	...	...	...	...	...
District of Columbia	150	*46.8	10	300	26.9	2.2	51.7
Florida	3,700	9.9	3,000	4,400	19.7	15.9	23.6
Georgia	2,300	14.1	1,700	2,900	25.4	18.4	32.5
Hawaii	...	...	...	...	...	...	...
Idaho	...	...	...	...	...	...	...
Illinois	1,100	18.8	680	1,500	10.0	6.3	13.7
Indiana	540	26.4	260	810	9.4	4.5	14.3
Iowa	...	...	...	...	...	...	...
Kansas	...	...	...	...	...	...	...
Kentucky	420	*31.7	160	680	11.1	4.2	18.0
Louisiana	760	23.1	420	1,100	19.8	10.8	28.8
Maine	...	...	...	...	...	...	...
Maryland	630	23.3	340	910	12.0	6.5	17.5
Massachusetts	370	28.6	160	570	6.1	2.7	9.5
Michigan	590	24.7	310	880	7.0	3.6	10.3
Minnesota	230	*39.9	50	420	4.9	1.1	8.8
Mississippi	420	*36.4	120	730	17.2	4.9	29.5
Missouri	470	24.2	250	700	9.1	4.8	13.5
Montana	...	...	...	...	...	...	...
Nebraska	...	...	...	...	...	...	...
Nevada	520	*31.3	200	840	19.7	7.6	31.7
New Hampshire	...	...	...	...	...	...	...
New Jersey[c]	1,100	18.9	670	1,500	13.5	8.5	18.5

Area of residence	No.	RSE (%)	95% CI		Rate[a]	95% CI	
2021[b]							
New Mexico	130	*48.8	10	260	7.5	0.3	14.6
New York	1,700	14.5	1,200	2,200	10.1	7.3	13.0
North Carolina	1,100	17.3	700	1,400	11.9	7.9	15.9
North Dakota	...	...	...	...	...	...	...
Ohio	850	20.8	500	1,200	8.6	5.1	12.1
Oklahoma	370	*33.5	130	610	11.2	3.8	18.5
Oregon	230	*42.6	40	420	6.3	1.0	11.5
Pennsylvania[c]	650	23.8	350	950	5.9	3.1	8.6
Puerto Rico[c]	280	*35.4	90	470	9.6	2.9	16.3
Rhode Island	...	...	...	...	...	...	...
South Carolina	650	27.5	300	1,000	14.8	6.8	22.7
South Dakota	...	...	...	...	...	...	...
Tennessee	720	20.2	430	1,000	12.2	7.3	17.0
Texas	4,000	10.0	3,300	4,800	16.7	13.4	19.9
Utah	...	...	...	...	...	...	...
Vermont	...	...	...	...	...	...	...
Virginia	640	24.4	330	950	8.8	4.6	13.0
Washington	470	*30.2	190	750	7.2	2.9	11.5
West Virginia	...	...	...	...	...	...	...
Wisconsin	230	*41.5	40	430	4.7	0.9	8.5
Wyoming	...	...	...	...	...	...	...

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE > 50% are not shown and are replaced with an ellipsis (...).

[a]Rates are per 100,000 population.
[b]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c]Estimates should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey, Pennsylvania, and Puerto Rico.

Table 7. Estimated HIV prevalence and undiagnosed infection among persons aged ≥ 13 years, by selected characteristics, 2021—United States

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with undiagnosed HIV infection							
	No.	RSE (%)	95% CI		Ratea	95% CI		No.	RSE (%)	95% CI		%	RSE (%)	95% CI	
Assigned sex at birth															
Male	946,500	0.4	939,400	953,500	686.1	681.0	691.3	127,300	2.8	120,300	134,400	13.5	2.5	12.8	14.1
Female	265,900	0.7	262,500	269,300	186.9	184.5	189.3	26,200	6.7	22,700	29,600	9.8	6.0	8.7	11.0
Age (yr)															
13–24	41,900	2.1	40,200	43,700	80.7	77.4	84.0	18,300	4.8	16,500	20,000	43.6	2.7	41.1	45.8
25–34	217,100	0.7	214,000	220,200	477.2	470.3	484.0	60,100	2.6	56,900	63,200	27.7	1.9	26.6	28.7

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with undiagnosed HIV infection							
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.	RSE (%)	95% CI		%	RSE (%)	95% CI	
35–44	238,300	0.6	235,700	241,000	549.1	543.1	555.1	36,300	3.7	33,700	38,900	15.2	3.1	14.3	16.2
45–54	263,000	0.4	260,700	265,300	646.4	640.7	652.1	20,000	5.9	17,700	22,300	7.6	5.5	6.8	8.4
≥ 55	452,000	0.4	448,600	455,400	458.2	454.7	461.7	18,800	9.3	15,400	22,300	4.2	8.9	3.4	4.9
Race/ethnicity															
American Indian/Alaska Native	4,100	6.1	3,600	4,500	198.7	174.8	222.5	810	*30.7	320	1,300	19.9	25.0	9.0	28.5
Asian[b]	18,600	2.4	17,700	19,400	110.3	105.0	115.6	2,100	21.6	1,200	3,000	11.3	19.2	6.9	15.4
Black/African American	487,500	0.5	482,500	492,500	1404.2	1389.9	1418.6	62,000	4.1	57,000	67,000	12.7	3.6	11.8	13.6
Hispanic/Latino[c]	297,200	0.7	293,400	301,100	603.0	595.2	610.8	44,900	4.4	41,000	48,700	15.1	3.7	14.0	16.2
Native Hawaiian/other Pacific Islander	1,200	11.1	950	1,400	229.2	185.1	279.1	…	…	…	…	19.3	*44.6	0.0	33.7
White	342,000	0.6	337,800	346,300	199.3	196.8	201.8	37,200	5.9	32,900	41,400	10.9	5.2	9.7	12.0
Multiracial	61,200	1.3	59,600	62,800	1168.6	1138.6	1198.6	6,300	12.6	4,800	7,900	10.4	11.4	8.0	12.6
Transmission category[d]															
Male-to-male sexual contact[e]	716,900	0.4	710,900	722,900	—	—	—	101,900	3.0	95,900	107,900	14.2	2.6	13.5	14.9
Injection drug use[f]	121,900	1.2	119,200	124,700	—	—	—	9,600	14.9	6,800	12,400	7.8	13.8	5.7	9.9
Male	70,400	1.6	68,100	72,600	—	—	—	5,900	19.5	3,600	8,100	8.3	17.9	5.3	11.2
Female	51,600	1.6	49,900	53,200	—	—	—	3,700	22.9	2,000	5,400	7.2	21.3	4.1	10.1
Male-to-male sexual contact[e] and injection drug use[f]	62,900	1.4	61,100	64,600	—	—	—	5,300	16.9	3,500	7,100	8.4	15.5	5.8	10.9
Heterosexual contact[g]	306,700	0.6	303,000	310,500	—	—	—	36,500	5.2	32,700	40,200	11.9	4.6	10.8	13.0
Male	94,100	1.2	91,800	96,400	—	—	—	14,100	8.3	11,800	16,400	15.0	7.1	12.9	17.1
Female	212,600	0.7	209,600	215,600	—	—	—	22,300	6.8	19,400	25,300	10.5	6.1	9.2	11.7
Region of residence															
Northeast	250,600	0.7	247,100	254,200	512.4	505.0	519.7	19,900	9.2	16,400	23,500	8.0	8.5	6.6	9.3
Midwest	148,800	0.9	146,000	151,500	256.5	251.8	261.2	21,300	6.6	18,600	24,100	14.3	5.6	12.7	15.9
South	567,800	0.5	562,400	573,200	530.7	525.7	535.8	79,800	3.4	74,500	85,200	14.1	2.9	13.2	14.9
West	245,200	0.7	241,700	248,700	369.8	364.5	375.1	32,400	5.5	28,900	35,900	13.2	4.8	12.0	14.4
Total[h]	**1,212,400**	**0.3**	**1,204,500**	**1,220,200**	**432.7**	**429.9**	**435.5**	**153,500**	**2.6**	**145,600**	**161,300**	**12.7**	**2.3**	**12.1**	**13.2**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE >50% are not shown and are replaced with an ellipsis (…).
Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.

[a] Rates are per 100,000 population.
[b] Includes Asian/Pacific Islander legacy cases.
[c] Hispanic/Latino persons can be of any race.
[d] Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category;

therefore, values may not sum to column subtotals and total.

[e] Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

[f] Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

[g] Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.

[h] Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

Table 8. Estimated HIV prevalence among persons aged ≥ 13 years, by selected characteristics, 2017–2021—United States

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Assigned sex at birth												
Male	886,200	0.3	880,100	892,200	665.4	660.8	670.0	753,766	85.1	0.4	84.5	85.6
Female	256,600	0.6	253,500	259,600	184.3	182.1	186.5	228,901	89.2	0.6	88.2	90.3
Age (yr)												
13–24	65,200	1.0	63,900	66,500	126.7	124.2	129.2	27,742	42.6	1.0	41.7	43.4
25–34	203,900	0.5	201,900	206,000	450.0	445.5	454.5	148,377	72.8	0.5	72.0	73.5
35–44	216,800	0.4	214,900	218,600	531.7	527.2	536.2	186,686	86.1	0.4	85.4	86.9
45–54	313,600	0.3	311,400	315,700	742.6	737.5	747.7	291,493	93.0	0.3	92.3	93.6
≥ 55	343,200	0.4	340,400	346,100	370.6	367.5	373.6	328,369	95.7	0.4	94.9	96.5
Race/ethnicity												
American Indian/Alaska Native	3,500	5.6	3,100	3,900	180.4	160.8	200.1	2,730	77.3	5.6	69.7	86.7
Asian[d]	16,500	2.3	15,800	17,300	106.1	101.3	110.8	13,516	81.8	2.3	78.3	85.7
Black/African American	461,000	0.5	456,700	465,400	1382.0	1369.0	1395.1	395,740	85.8	0.5	85.0	86.7
Hispanic/Latino[e]	268,800	0.6	265,700	272,000	598.0	591.0	605.1	223,165	83.0	0.6	82.0	84.0
Native Hawaiian/Other Pacific Islander	990	9.9	800	1,200	210.7	169.8	251.7	739	74.4	10.3	62.3	92.3
White	329,600	0.6	325,700	333,400	192.1	189.9	194.4	291,194	88.4	0.6	87.3	89.4
Multiple races	61,600	1.2	60,200	63,000	1352.8	1321.9	1383.6	54,920	89.2	1.2	87.2	91.3
Transmission category[f]												
Male-to-male sexual contact[g]	655,100	0.4	650,000	660,200	—	—	—	549,064	83.8	0.4	83.2	84.5
Injection drug use[h]	125,900	1.1	123,300	128,500	—	—	—	116,784	92.8	1.1	90.9	94.7
Male	73,200	1.5	71,100	75,300	—	—	—	67,774	92.6	1.5	90.1	95.3
Female	52,700	1.5	51,200	54,200	—	—	—	49,011	93.0	1.5	90.4	95.8
Male-to-male sexual contact[g] and Injection drug use[h]	63,400	1.3	61,800	65,000	—	—	—	58,001	91.5	1.3	89.2	93.9
Heterosexual contact[i]	294,500	0.6	291,200	297,700	—	—	—	255,234	86.7	0.6	85.7	87.7
Male	92,200	1.1	90,300	94,200	—	—	—	76,847	83.3	1.1	81.6	85.1
Female	202,200	0.7	199,600	204,800	—	—	—	178,387	88.2	0.7	87.1	89.4
Region of residence												
Northeast	248,600	0.7	245,300	251,800	520.2	513.3	527.0	226,712	91.2	0.7	90.0	92.4
Midwest	139,100	0.9	136,800	141,500	243.7	239.6	247.9	117,129	84.2	0.9	82.8	85.6
South	527,000	0.4	522,500	531,600	510.9	506.5	515.4	443,937	84.2	0.4	83.5	85.0
West	228,000	0.7	225,000	231,000	354.1	349.4	358.8	194,889	85.5	0.7	84.4	86.6

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Total[j]	1,142,700	0.3	1,135,900	1,149,500	419.5	417.0	422.0	982,667	86.0	0.3	85.5	86.5

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Assigned sex at birth												
Male	904,500	0.4	898,300	910,800	674.5	669.8	679.1	772,969	85.5	0.4	84.9	86.1
Female	259,800	0.6	256,700	263,000	185.4	183.1	187.6	232,542	89.5	0.6	88.4	90.6
Age (yr)												
13–24	59,200	1.2	57,800	60,600	115.5	112.8	118.2	26,607	45.0	1.2	43.9	46.0
25–34	211,200	0.5	209,000	213,500	462.4	457.5	467.3	153,232	72.5	0.5	71.8	73.3
35–44	220,200	0.5	218,300	222,200	534.1	529.4	538.8	189,167	85.9	0.5	85.1	86.7
45–54	301,000	0.4	298,800	303,100	724.0	718.8	729.2	279,604	92.9	0.4	92.2	93.6
≥ 55	372,800	0.4	369,800	375,800	394.2	391.0	397.3	356,901	95.7	0.4	95.0	96.5
Race/ethnicity												
American Indian/Alaska Native	3,700	5.6	3,300	4,100	185.2	164.9	205.5	2,853	77.9	5.7	70.2	87.5
Asian[d]	17,100	2.3	16,300	17,900	107.4	102.6	112.2	14,375	84.1	2.3	80.5	88.1
Black/African American	469,600	0.5	465,100	474,100	1394.8	1381.5	1408.0	404,951	86.2	0.5	85.4	87.1
Hispanic/Latino[e]	277,000	0.6	273,700	280,200	602.2	595.0	609.3	231,101	83.4	0.6	82.5	84.4
Native Hawaiian/Other Pacific Islander	1,000	10.1	830	1,200	214.8	172.4	257.2	784	75.8	10.5	63.3	94.4
White	333,600	0.6	329,600	337,500	194.4	192.2	196.7	295,534	88.6	0.6	87.6	89.7
Multiple races	61,800	1.2	60,400	63,300	1313.9	1283.3	1344.5	55,250	89.4	1.2	87.3	91.5
Transmission category[f]												
Male-to-male sexual contact[g]	673,000	0.4	667,700	678,200	—	—	—	567,472	84.3	0.4	83.7	85.0
Injection drug use[h]	125,200	1.1	122,500	127,800	—	—	—	115,950	92.6	1.1	90.7	94.6
Male	72,600	1.5	70,500	74,700	—	—	—	67,101	92.4	1.5	89.8	95.2
Female	52,600	1.5	51,000	54,100	—	—	—	48,850	92.9	1.5	90.2	95.8
Male-to-male sexual contact[g] and Injection drug use[h]	63,500	1.3	61,900	65,200	—	—	—	58,116	91.5	1.3	89.2	93.9
Heterosexual contact[i]	298,900	0.6	295,500	302,200	—	—	—	260,362	87.1	0.6	86.1	88.1
Male	93,200	1.1	91,200	95,300	—	—	—	78,210	83.9	1.1	82.1	85.8
Female	205,600	0.7	202,900	208,300	—	—	—	182,152	88.6	0.7	87.4	89.8
Region of residence												
Northeast	250,000	0.7	246,700	253,400	522.7	515.8	529.7	228,784	91.5	0.7	90.3	92.7
Midwest	142,000	0.9	139,600	144,400	248.1	243.9	252.4	120,165	84.6	0.9	83.2	86.1
South	538,900	0.4	534,200	543,600	517.3	512.8	521.8	456,294	84.7	0.4	83.9	85.4
West	233,400	0.7	230,300	236,500	358.9	354.1	363.7	200,268	85.8	0.7	84.7	87.0
Total[j]	**1,164,400**	**0.3**	**1,157,400**	**1,171,400**	**424.5**	**422.0**	**427.1**	**1,005,511**	**86.4**	**0.3**	**85.8**	**86.9**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Assigned sex at birth												
Male	921,900	0.4	915,400	928,400	683.0	678.2	687.8	791,399	85.8	0.4	85.2	86.5
Female	262,900	0.6	259,700	266,100	186.4	184.1	188.7	236,166	89.8	0.6	88.7	90.9
Age (yr)												
13–24	53,500	1.4	52,000	55,000	104.8	101.8	107.7	25,934	48.5	1.4	47.2	49.9
25–34	216,200	0.6	213,800	218,700	470.1	464.6	475.5	156,651	72.4	0.6	71.6	73.3
35–44	225,100	0.5	223,000	227,200	540.1	535.0	545.2	192,529	85.5	0.5	84.7	86.4
45–54	287,400	0.4	285,300	289,600	703.5	698.2	708.8	266,664	92.8	0.4	92.1	93.5
≥ 55	402,600	0.4	399,500	405,700	417.3	414.1	420.6	385,787	95.8	0.4	95.1	96.6
Race/ethnicity												
American Indian/Alaska Native	3,800	5.7	3,400	4,200	191.0	169.7	212.3	2,990	78.4	5.8	70.6	88.2
Asian[d]	17,700	2.3	16,900	18,500	108.8	103.8	113.7	15,118	85.6	2.3	81.9	89.7
Black/African American	477,600	0.5	473,000	482,200	1405.5	1392.0	1419.1	413,920	86.7	0.5	85.8	87.5
Hispanic/Latino[e]	284,700	0.6	281,200	288,100	606.3	599.0	613.6	239,069	84.0	0.6	83.0	85.0
Native Hawaiian/Other Pacific Islander	1,100	10.2	850	1,300	216.6	173.1	260.1	830	78.0	10.7	64.9	97.6
White	337,300	0.6	333,300	341,300	196.6	194.3	199.0	299,443	88.8	0.6	87.7	89.8
Multiple races	62,000	1.2	60,600	63,500	1275.9	1245.5	1306.3	55,536	89.5	1.2	87.4	91.7
Transmission category[f]												
Male-to-male sexual contact[g]	689,900	0.4	684,500	695,300	—	—	—	585,215	84.8	0.4	84.2	85.5
Injection drug use[h]	124,500	1.1	121,900	127,200	—	—	—	115,253	92.6	1.1	90.6	94.6
Male	72,100	1.5	69,900	74,200	—	—	—	66,494	92.2	1.5	89.6	95.1
Female	52,400	1.5	50,900	54,000	—	—	—	48,759	93.0	1.5	90.2	95.9
Male-to-male sexual contact[g] and Injection drug use[h]	63,600	1.3	62,000	65,300	—	—	—	58,324	91.6	1.3	89.3	94.1
Heterosexual contact[i]	302,900	0.6	299,400	306,300	—	—	—	265,124	87.5	0.6	86.5	88.6
Male	94,100	1.1	92,000	96,200	—	—	—	79,292	84.3	1.1	82.4	86.2
Female	208,800	0.7	206,000	211,500	—	—	—	185,832	89.0	0.7	87.8	90.2
Region of residence												
Northeast	250,900	0.7	247,500	254,300	524.8	517.7	531.9	230,293	91.8	0.7	90.6	93.0
Midwest	144,500	0.9	142,000	147,000	251.8	247.4	256.2	122,883	85.0	0.9	83.6	86.5
South	550,900	0.5	546,000	555,800	523.4	518.8	528.1	468,902	85.1	0.5	84.4	85.9
West	238,500	0.7	235,300	241,700	363.5	358.6	368.4	205,487	86.2	0.7	85.0	87.3
Total[j]	**1,184,800**	**0.3**	**1,177,600**	**1,192,100**	**429.2**	**426.6**	**431.8**	**1,027,565**	**86.7**	**0.3**	**86.2**	**87.3**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Assigned sex at birth												
Male	932,300	0.4	925,600	939,100	678.8	673.9	683.7	802,910	86.1	0.4	85.5	86.7
Female	263,600	0.6	260,300	267,000	186.1	183.8	188.5	237,346	90.0	0.6	88.9	91.2
Age (yr)												
13–24	46,900	1.7	45,300	48,500	90.5	87.4	93.6	24,027	51.3	1.8	49.6	53.1

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
25–34	217,100	0.7	214,300	219,900	475.2	469.1	481.3	156,512	72.1	0.7	71.2	73.0
35–44	230,200	0.5	227,900	232,600	536.6	531.2	542.1	195,916	85.1	0.5	84.2	86.0
45–54	273,800	0.4	271,600	276,000	666.2	660.8	671.6	253,579	92.6	0.4	91.9	93.4
≥ 55	428,000	0.4	424,700	431,200	438.9	435.5	442.2	410,222	95.9	0.4	95.1	96.6
Race/ethnicity												
American Indian/Alaska Native	3,900	5.9	3,500	4,400	194.5	172.0	217.1	3,099	78.8	6.0	70.6	89.1
Asian[d]	18,100	2.4	17,200	18,900	108.7	103.6	113.8	15,721	87.1	2.4	83.2	91.3
Black/African American	481,700	0.5	476,900	486,500	1397.2	1383.3	1411.1	418,714	86.9	0.5	86.1	87.8
Hispanic/Latino[e]	289,500	0.6	285,900	293,200	599.0	591.5	606.5	244,303	84.4	0.6	83.3	85.5
Native Hawaiian/Other Pacific Islander	1,100	10.7	880	1,300	219.3	175.0	265.1	882	79.8	10.9	66.0	100.0
White	339,300	0.6	335,100	343,400	197.3	194.9	199.7	301,619	88.9	0.6	87.8	90.0
Multiple races	61,700	1.3	60,200	63,200	1218.1	1188.0	1248.3	55,260	89.6	1.3	87.4	91.8
Transmission category[f]												
Male-to-male sexual contact[g]	701,900	0.4	696,200	707,600	—	—	—	598,237	85.2	0.4	84.5	85.9
Injection drug use[h]	123,000	1.1	120,200	125,700	—	—	—	113,525	92.3	1.1	90.3	94.4
Male	71,100	1.6	68,900	73,300	—	—	—	65,327	91.9	1.6	89.1	94.8
Female	51,800	1.6	50,200	53,500	—	—	—	48,198	93.0	1.6	90.1	96.0
Male-to-male sexual contact[g] and Injection drug use[h]	63,200	1.4	61,500	64,900	—	—	—	57,858	91.5	1.4	89.1	94.1
Heterosexual contact[i]	304,000	0.6	300,400	307,600	—	—	—	267,001	87.8	0.6	86.8	88.9
Male	93,900	1.2	91,700	96,100	—	—	—	79,440	84.6	1.2	82.6	86.6
Female	210,100	0.7	207,200	212,900	—	—	—	187,561	89.3	0.7	88.1	90.5
Region of residence												
Northeast	250,200	0.7	246,700	253,700	509.4	502.3	516.5	229,844	91.9	0.7	90.6	93.2
Midwest	146,400	0.9	143,800	149,000	252.7	248.2	257.3	124,830	85.3	0.9	83.8	86.8
South	558,000	0.5	552,900	563,100	526.6	521.8	531.4	476,871	85.5	0.5	84.7	86.3
West	241,400	0.7	238,100	244,800	365.8	360.7	370.9	208,711	86.4	0.7	85.3	87.7
Total[j]	**1,196,000**	**0.3**	**1,188,400**	**1,203,500**	**428.7**	**426.0**	**431.4**	**1,040,256**	**87.0**	**0.3**	**86.4**	**87.5**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Assigned sex at birth												
Male	946,500	0.4	939,400	953,500	686.1	681.0	691.3	819,141	86.5k	0.4	85.9	87.2
Female	265,900	0.7	262,500	269,300	186.9	184.5	189.3	239,759	90.2	0.7	89.0	91.3
Age (yr)												
13–24	41,900	2.1	40,200	43,700	80.7	77.4	84.0	23,671	56.4k	2.1	54.2	58.9
25–34	217,100	0.7	214,000	220,200	477.2	470.3	484.0	157,035	72.3	0.7	71.3	73.4
35–44	238,300	0.6	235,700	241,000	549.1	543.1	555.1	202,019	84.8k	0.6	83.8	85.7
45–54	263,000	0.4	260,700	265,300	646.4	640.7	652.1	243,001	92.4	0.4	91.6	93.2
≥ 55	452,000	0.4	448,600	455,400	458.2	454.7	461.7	433,174	95.8	0.4	95.1	96.6
Race/ethnicity												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
American Indian/Alaska Native	4,100	6.1	3,600	4,500	198.7	174.8	222.5	3,245	80.1	6.2	71.5	91.0
Asian[d]	18,600	2.4	17,700	19,400	110.3	105.0	115.6	16,455	88.7k	2.5	84.6	93.1
Black/African American	487,500	0.5	482,500	492,500	1404.2	1389.9	1418.6	425,519	87.3k	0.5	86.4	88.2
Hispanic/Latino[e]	297,200	0.7	293,400	301,100	603.0	595.2	610.8	252,342	84.9k	0.7	83.8	86.0
Native Hawaiian/Other Pacific Islander	1,200	11.1	950	1,400	229.2	185.1	279.1	948	80.7	10.6	66.3	100.0
White	342,000	0.6	337,800	346,300	199.3	196.8	201.8	304,871	89.1	0.6	88.0	90.3
Multiple races	61,200	1.3	59,600	62,800	1168.6	1138.6	1198.6	54,864	89.6	1.3	87.4	92.0
Transmission category[f]												
Male-to-male sexual contact[g]	716,900	0.4	710,900	722,900	—	—	—	615,019	85.8k	0.4	85.1	86.5
Injection drug use[h]	121,900	1.2	119,200	124,700	—	—	—	112,395	92.2	1.2	90.1	94.3
Male	70,400	1.6	68,100	72,600	—	—	—	64,530	91.7	1.6	88.8	94.7
Female	51,600	1.6	49,900	53,200	—	—	—	47,864	92.8	1.6	89.9	95.9
Male-to-male sexual contact[g] and Injection drug use[h]	62,900	1.4	61,100	64,600	—	—	—	57,559	91.6	1.4	89.1	94.2
Heterosexual contact[i]	306,700	0.6	303,000	310,500	—	—	—	270,255	88.1	0.6	87.0	89.2
Male	94,100	1.2	91,800	96,400	—	—	—	79,991	85.0	1.2	82.9	87.1
Female	212,600	0.7	209,600	215,600	—	—	—	190,265	89.5	0.7	88.3	90.8
Region of residence												
Northeast	250,600	0.7	247,100	254,200	512.4	505.0	519.7	230,704	92.0	0.7	90.7	93.4
Midwest	148,800	0.9	146,000	151,500	256.5	251.8	261.2	127,435	85.7	0.9	84.1	87.3
South	567,800	0.5	562,400	573,200	530.7	525.7	535.8	487,976	85.9k	0.5	85.1	86.8
West	245,200	0.7	241,700	248,700	369.8	364.5	375.1	212,785	86.8	0.7	85.6	88.0
Total[j]	**1,212,400**	**0.3**	**1,204,500**	**1,220,200**	**432.7**	**429.9**	**435.5**	**1,058,900**	**87.3k**	**0.3**	**86.8**	**87.9**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

[a] Rates are per 100,000 population.
[b] Reported to the National HIV Surveillance System.
[c] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[d] Includes Asian/Pacific Islander legacy cases.
[e] Hispanic/Latino persons can be of any race.
[f] Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[g] Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[h] Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[i] Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[j] Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[k] Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 9. Estimated HIV prevalence among Black/African American persons aged ≥ 13 years, by assigned sex at birth and selected characteristics, 2017–2021—United States

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Male												
Age (yr)												
13–24	29,200	1.5	28,400	30,100	790.7	767.7	813.7	12,666	43.4	1.5	42.1	44.7
25–34	73,600	0.8	72,400	74,800	2,389.1	2,350.6	2,427.5	55,620	75.6	0.8	74.4	76.8
35–44	52,200	0.9	51,300	53,100	2,118.2	2,082.1	2,154.4	45,328	86.9	0.9	85.4	88.4
45–54	71,600	0.7	70,500	72,600	2,913.1	2,870.2	2,955.9	66,888	93.4	0.8	92.1	94.8
≥55	85,800	0.9	84,300	87,300	2,119.7	2,082.4	2,157.0	82,058	95.7	0.9	94.0	97.4
Transmission category[d]												
Male-to-male sexual contact[e]	204,900	0.7	202,100	207,700	—	—	—	166,582	81.3	0.7	80.2	82.4
Injection drug use[f]	33,400	2.3	31,900	34,900	—	—	—	31,874	95.5	2.3	91.5	99.9
Male-to-male sexual contact[e] and injection drug use[f]	17,000	2.6	16,100	17,900	—	—	—	15,979	93.9	2.6	89.3	99.0
Heterosexual contact[g]	56,400	1.4	54,900	58,000	—	—	—	47,587	84.4	1.4	82.1	86.7
Subtotal[h]	312,300	0.6	308,700	316,000	1,984.1	1,961.0	2,007.2	262,560	84.1	0.6	83.1	85.1
Female												
Age (yr)												
13–24	4,800	3.7	4,500	5,200	135.1	125.2	144.9	2,529	52.2	3.7	48.6	56.3
25–34	19,500	1.5	18,900	20,100	617.0	598.2	635.7	15,267	78.2	1.5	75.9	80.7
35–44	34,300	1.0	33,600	35,000	1,250.9	1,225.6	1,276.2	30,713	89.6	1.0	87.8	91.5
45–54	44,600	0.9	43,800	45,400	1,601.9	1,572.7	1,631.1	41,659	93.5	0.9	91.8	95.2
≥55	45,500	1.1	44,500	46,500	851.4	833.1	869.8	43,012	94.5	1.1	92.6	96.6
Transmission category[d]												
Injection drug use[f]	24,500	2.3	23,400	25,600	—	—	—	23,358	95.2	2.3	91.1	99.8
Heterosexual contact[g]	123,300	0.9	121,300	125,400	—	—	—	109,088	88.4	0.9	87.0	89.9
Subtotal[h]	148,700	0.8	146,300	151,100	844.1	830.6	857.5	133,180	89.6	0.8	88.2	91.0
Total[h]	**461,000**	**0.5**	**456,700**	**465,400**	**1,382.0**	**1,369.0**	**1,395.1**	**395,740**	**85.8**	**0.5**	**85.0**	**86.7**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male												
Age (yr)												
13–24	26,700	1.7	25,800	27,600	734.7	709.9	759.5	12,152	45.5	1.7	44.0	47.1
25–34	77,900	0.9	76,600	79,200	2,456.8	2,415.3	2,498.4	58,599	75.2	0.9	74.0	76.5
35–44	54,200	0.9	53,300	55,200	2,175.7	2,137.2	2,214.3	47,121	86.9	0.9	85.3	88.4
45–54	68,200	0.8	67,200	69,300	2,809.8	2,766.5	2,853.1	63,765	93.5	0.8	92.1	94.9
≥55	92,100	0.9	90,500	93,600	2,210.2	2,172.4	2,248.0	88,074	95.7	0.9	94.1	97.3
Transmission category[d]												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male-to-male sexual contact[e]	212,100	0.7	209,200	215,000	—	—	—	173,802	81.9	0.7	80.8	83.1
Injection drug use[f]	32,700	2.3	31,300	34,200	—	—	—	31,259	95.5	2.3	91.4	100.0
Male-to-male sexual contact[e] and injection drug use[f]	16,800	2.7	16,000	17,700	—	—	—	15,828	94.0	2.7	89.3	99.2
Heterosexual contact[g]	56,800	1.4	55,300	58,400	—	—	—	48,281	84.9	1.4	82.6	87.4
Subtotal[h]	319,100	0.6	315,400	322,900	2,008.1	1,984.5	2,031.7	269,711	84.5	0.6	83.5	85.5
Female												
Age (yr)												
13–24	4,400	4.3	4,000	4,800	124.3	113.8	134.7	2,357	53.6	4.3	49.4	58.5
25–34	18,900	1.7	18,300	19,600	587.1	567.6	606.7	14,696	77.7	1.7	75.2	80.3
35–44	33,800	1.1	33,000	34,500	1,221.7	1,195.6	1,247.7	30,257	89.6	1.1	87.7	91.6
45–54	43,800	1.0	43,000	44,700	1,591.2	1,561.4	1,621.0	41,014	93.6	1.0	91.8	95.3
≥55	49,500	1.1	48,500	50,600	901.4	882.6	920.2	46,916	94.7	1.1	92.8	96.7
Transmission category[d]												
Injection drug use[f]	24,300	2.4	23,100	25,400	—	—	—	23,121	95.3	2.4	91.0	99.9
Heterosexual contact[g]	125,300	0.9	123,200	127,400	—	—	—	111,350	88.8	0.9	87.4	90.4
Subtotal[h]	150,500	0.8	148,000	152,900	846.4	832.8	860.1	135,240	89.9	0.8	88.5	91.3
Total[h]	469,600	0.5	465,100	474,100	1,394.8	1,381.5	1,408.0	404,951	86.2	0.5	85.4	87.1

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Male												
Age (yr)												
13–24	24,400	2.0	23,400	25,400	679.5	652.5	706.6	11,920	48.9	2.0	47.0	50.9
25–34	81,200	0.9	79,700	82,600	2,496.2	2,451.0	2,541.3	60,775	74.9	0.9	73.5	76.3
35–44	57,000	0.9	56,000	58,100	2,254.1	2,212.5	2,295.8	49,434	86.7	0.9	85.1	88.3
45–54	64,700	0.8	63,700	65,800	2,708.9	2,664.6	2,753.1	60,419	93.3	0.8	91.8	94.9
≥55	98,300	0.9	96,700	100,000	2,296.4	2,258.0	2,334.7	94,175	95.8	0.9	94.2	97.4
Transmission category[d]												
Male-to-male sexual contact[e]	219,000	0.7	216,000	222,000	—	—	—	180,843	82.6	0.7	81.5	83.7
Injection drug use[f]	32,100	2.4	30,700	33,600	—	—	—	30,721	95.7	2.3	91.4	100.0
Male-to-male sexual contact[e]and injection drug use[f]	16,700	2.7	15,800	17,600	—	—	—	15,717	94.3	2.8	89.5	99.7
Heterosexual contact[g]	57,300	1.5	55,600	58,900	—	—	—	48,884	85.4	1.5	83.0	87.9
Subtotal[h]	325,600	0.6	321,800	329,500	2,029.8	2,005.6	2,054.0	276,723	85.0	0.6	84.0	86.0
Female												
Age (yr)												
13–24	4,000	5.0	3,600	4,400	113.8	102.8	124.9	2,219	55.7	5.0	50.7	61.7
25–34	18,300	1.9	17,700	19,000	559.3	538.8	579.7	14,228	77.6	1.9	74.9	80.6
35–44	32,800	1.2	32,000	33,500	1,173.8	1,146.9	1,200.6	29,335	89.5	1.2	87.5	91.5
45–54	43,100	1.0	42,300	44,000	1,588.2	1,557.5	1,618.8	40,458	93.8	1.0	92.0	95.6

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
≥55	53,700	1.0	52,600	54,800	951.1	931.8	970.4	50,957	94.8	1.0	93.0	96.8
Transmission category[d]												
Injection drug use[f]	24,000	2.4	22,900	25,100	—	—	—	22,895	95.6	2.3	91.3	100.0
Heterosexual contact[g]	127,100	0.9	124,900	129,300	—	—	—	113,502	89.3	0.9	87.8	90.8
Subtotal[h]	152,000	0.8	149,500	154,500	847.2	833.4	861.0	137,197	90.3	0.8	88.8	91.8
Total[h]	**477,600**	**0.5**	**473,000**	**482,200**	**1,405.5**	**1,392.0**	**1,419.1**	**413,920**	**86.7**	**0.5**	**85.8**	**87.5**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Male												
Age (yr)												
13–24	21,800	2.5	20,700	22,900	602.0	572.5	631.5	11,276	51.7	2.5	49.3	54.3
25–34	82,900	1.0	81,200	84,600	2,548.3	2,497.0	2,599.5	61,640	74.3	1.0	72.9	75.9
35–44	60,200	1.0	59,000	61,400	2,282.6	2,238.1	2,327.2	52,029	86.4	1.0	84.8	88.1
45–54	61,100	0.9	60,100	62,200	2,516.7	2,472.4	2,561.1	56,952	93.1	0.9	91.5	94.8
≥55	103,500	0.8	101,800	105,200	2,330.8	2,292.2	2,369.4	99,102	95.8	0.8	94.2	97.4
Transmission category[d]												
Male-to-male sexual contact[e]	224,200	0.7	221,000	227,400	—	—	—	186,280	83.1	0.7	81.9	84.3
Injection drug use[f]	31,200	2.5	29,800	32,700	—	—	—	29,844	95.7	2.3	91.3	100.0
Male-to-male sexual contact[e] and injection drug use[f]	16,400	2.8	15,500	17,400	—	—	—	15,479	94.1	2.8	89.2	99.6
Heterosexual contact[g]	57,100	1.5	55,300	58,800	—	—	—	48,836	85.6	1.5	83.1	88.2
Subtotal[h]	329,500	0.6	325,500	333,600	2,011.4	1,986.6	2,036.2	280,999	85.3	0.6	84.2	86.3
Female												
Age (yr)												
13–24	3,400	6.1	3,000	3,800	97.1	85.6	108.7	1,969	57.3	6.2	51.2	65.1
25–34	17,600	2.1	16,900	18,400	535.9	513.6	558.2	13,518	76.7	2.1	73.7	80.0
35–44	31,800	1.3	31,000	32,600	1,113.3	1,085.6	1,140.9	28,324	89.1	1.3	87.0	91.4
45–54	42,000	1.0	41,200	42,900	1,555.8	1,524.4	1,587.2	39,511	94.0	1.0	92.1	95.9
≥55	57,300	1.0	56,100	58,400	1,002.8	982.7	1,022.9	54,393	95.0	1.0	93.1	96.9
Transmission category[d]												
Injection drug use[f]	23,500	2.5	22,500	24,700	—	—	—	22,495	95.7	2.3	91.2	100.0
Heterosexual contact[g]	127,700	0.9	125,500	130,000	—	—	—	114,400	89.6	0.9	88.0	91.2
Subtotal[h]	152,200	0.9	149,600	154,700	841.0	826.9	855.0	137,715	90.5	0.9	89.0	92.0
Total[h]	**481,700**	**0.5**	**476,900**	**486,500**	**1,397.2**	**1,383.3**	**1,411.1**	**418,714**	**86.9**	**0.5**	**86.1**	**87.8**

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2021[c]								
Male									

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Age (yr)												
13–24	19,800	3.0	18,600	21,000	544.7	512.6	576.8	11,207	56.6[i]	3.0	53.5	60.2
25–34	83,400	1.1	81,600	85,300	2,556.7	2,500.1	2,613.2	62,019	74.3	1.1	72.7	76.0
35–44	64,600	1.0	63,200	65,900	2,407.6	2,358.4	2,456.8	55,567	86.1	1.0	84.3	87.9
45–54	58,100	1.0	57,000	59,200	2,421.8	2,375.7	2,468.0	53,955	92.9	1.0	91.2	94.7
≥55	108,600	0.8	106,800	110,300	2,400.6	2,360.9	2,440.2	103,910	95.7	0.8	94.2	97.3
Transmission category[d]												
Male-to-male sexual contact[e]	230,100	0.8	226,700	233,500	—	—	—	192,625	83.7[i]	0.8	82.5	85.0
Injection drug use[f]	30,400	2.5	29,200	32,000	—	—	—	29,183	95.8	2.3	91.3	100.0
Male-to-male sexual contact[e] and injection drug use[f]	16,200	2.9	15,300	17,100	—	—	—	15,249	94.1	2.9	89.0	99.8
Heterosexual contact[g]	57,000	1.6	55,200	58,800	—	—	—	49,028	86.0	1.6	83.4	88.8
Subtotal[h]	334,400	0.6	330,200	338,700	2,027.0	2,001.2	2,052.8	286,658	85.7[i]	0.6	84.6	86.8
Female												
Age (yr)												
13–24	3,000	7.1	2,600	3,500	85.9	73.9	97.9	1,866	61.3	7.3	53.8	71.2
25–34	17,000	2.4	16,200	17,800	516.1	492.1	540.2	12,955	76.4	2.4	73.0	80.1
35–44	31,200	1.4	30,300	32,000	1,077.2	1,048.3	1,106.2	27,708	88.9	1.4	86.6	91.4
45–54	41,200	1.1	40,300	42,100	1,541.9	1,509.3	1,574.6	38,717	94.0	1.1	92.0	96.0
≥55	60,700	1.0	59,500	61,900	1,042.5	1,021.7	1,063.2	57,615	94.9	1.0	93.1	96.9
Transmission category[d]												
Injection drug use[f]	23,100	2.5	22,100	24,300	—	—	—	22,134	95.8	2.3	91.2	100.0
Heterosexual contact[g]	129,000	0.9	126,700	131,300	—	—	—	115,867	89.8	0.9	88.2	91.5
Subtotal[h]	153,100	0.9	150,400	155,700	840.2	825.9	854.6	138,861	90.7	0.9	89.2	92.3
Total[h]	**487,500**	**0.5**	**482,500**	**492,500**	**1,404.2**	**1,389.9**	**1,418.6**	**425,519**	**87.3[i]**	**0.5**	**86.4**	**88.2**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

[a]Rates are per 100,000 population.
[b]Reported to the National HIV Surveillance System.
[c]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[d]Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[e]Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[f]Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[g]Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[h]Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[i]Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 10. Estimated HIV prevalence among Hispanic/Latino persons aged ≥ 13 years, by assigned sex at birth and selected characteristics, 2017–2021—United States

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Male												
Age (yr)												
13–24	16,000	2.2	15,300	16,600	266.6	255.2	278.0	5,878	36.8	2.2	35.3	38.5
25–34	48,400	1.1	47,400	49,500	995.0	973.6	1,016.5	32,663	67.5	1.1	66.0	69.0
35–44	50,100	0.9	49,200	51,000	1,163.7	1,142.7	1,184.7	41,961	83.8	0.9	82.3	85.3
45–54	59,000	0.8	58,100	59,900	1,719.4	1,692.8	1,746.1	54,358	92.1	0.8	90.7	93.6
≥55	48,300	1.1	47,300	49,300	1,192.2	1,166.9	1,217.6	46,157	95.6	1.1	93.6	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	167,300	0.7	164,900	169,800	—	—	—	132,912	79.4	0.7	78.3	80.6
Injection drug use[f]	20,600	2.6	19,500	21,600	—	—	—	19,161	93.2	2.6	88.7	98.1
Male-to-male sexual contact[e] and injection drug use[f]	14,900	2.5	14,100	15,600	—	—	—	13,326	89.7	2.5	85.5	94.3
Heterosexual contact[g]	18,700	2.4	17,800	19,500	—	—	—	15,311	82.0	2.4	78.3	86.0
Subtotal[h]	221,800	0.7	218,900	224,700	979.5	966.7	992.3	181,017	81.6	0.7	80.6	82.7
Female												
Age (yr)												
13–24	1,400	7.0	1,200	1,600	24.3	20.9	27.6	671	48.5	7.2	42.6	56.3
25–34	5,600	2.9	5,300	5,900	127.3	120.0	134.6	4,258	75.8	2.9	71.7	80.4
35–44	10,600	1.8	10,200	11,000	260.0	250.8	269.1	9,428	88.7	1.8	85.7	92.0
45–54	14,300	1.6	13,800	14,700	423.1	410.1	436.0	13,276	92.9	1.6	90.2	95.9
≥55	15,200	1.7	14,700	15,700	320.5	309.7	331.4	14,515	95.6	1.7	92.5	99.0
Transmission category[d]												
Injection drug use[f]	10,200	3.2	9,600	10,900	—	—	—	9,628	94.2	3.1	88.7	100.0
Heterosexual contact[g]	36,600	1.5	35,600	37,700	—	—	—	32,291	88.2	1.5	85.6	90.8
Subtotal[h]	47,100	1.4	45,800	48,400	211.0	205.4	216.7	42,148	89.5	1.4	87.2	92.0
Total[h]	**268,800**	**0.6**	**265,700**	**272,000**	**598.0**	**591.0**	**605.1**	**223,165**	**83.0**	**0.6**	**82.0**	**84.0**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male												
Age (yr)												
13–24	14,700	2.5	14,000	15,400	242.4	230.4	254.5	5,800	39.5	2.5	37.6	41.6
25–34	50,800	1.2	49,700	52,000	1,031.4	1,007.6	1,055.3	34,289	67.4	1.2	65.9	69.0
35–44	51,700	1.0	50,700	52,700	1,178.1	1,155.5	1,200.6	43,185	83.5	1.0	81.9	85.1
45–54	58,600	0.8	57,700	59,600	1,670.1	1,643.3	1,696.9	53,977	92.1	0.8	90.6	93.6
≥55	53,300	1.0	52,200	54,400	1,249.5	1,224.1	1,274.9	50,942	95.6	1.0	93.7	97.6
Transmission category[d]												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male-to-male sexual contact[e]	174,400	0.7	171,800	177,000	—	—	—	139,681	80.1	0.7	78.9	81.3
Injection drug use[f]	20,400	2.6	19,400	21,400	—	—	—	19,024	93.3	2.6	88.7	98.3
Male-to-male sexual contact[e] and injection drug use[f]	15,000	2.5	14,200	15,700	—	—	—	13,456	89.9	2.5	85.7	94.6
Heterosexual contact[g]	19,000	2.4	18,100	19,900	—	—	—	15,721	82.6	2.4	78.8	86.7
Subtotal[h]	229,100	0.7	226,100	232,200	989.7	976.7	1,002.8	188,193	82.1	0.7	81.1	83.2
Female												
Age (yr)												
13–24	1,300	8.1	1,100	1,500	22.2	18.7	25.8	644	50.0	8.3	43.2	59.4
25–34	5,500	3.2	5,100	5,800	121.9	114.2	129.6	4,097	74.9	3.2	70.5	80.0
35–44	10,500	1.9	10,100	10,900	253.8	244.3	263.4	9,272	88.0	1.9	84.8	91.5
45–54	14,100	1.6	13,600	14,500	406.7	393.8	419.5	13,098	93.2	1.6	90.3	96.2
≥55	16,500	1.7	15,900	17,000	331.9	321.0	342.8	15,797	95.9	1.7	92.8	99.2
Transmission category[d]												
Injection drug use[f]	10,200	3.2	9,600	10,800	—	—	—	9,588	94.3	3.1	88.7	100.0
Heterosexual contact[g]	37,400	1.5	36,300	38,500	—	—	—	33,087	88.4	1.5	85.9	91.1
Subtotal[h]	47,800	1.4	46,500	49,100	209.3	203.7	215.0	42,908	89.7	1.4	87.4	92.2
Total[h]	**277,000**	**0.6**	**273,700**	**280,200**	**602.2**	**595.0**	**609.3**	**231,101**	**83.4**	**0.6**	**82.5**	**84.4**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Male												
Age (yr)												
13–24	13,300	3.0	12,500	14,100	217.0	204.1	229.8	5,809	43.7	3.0	41.2	46.4
25–34	52,800	1.3	51,500	54,100	1,060.2	1,033.7	1,086.7	35,727	67.6	1.3	66.0	69.4
35–44	53,700	1.0	52,600	54,800	1,205.5	1,181.0	1,230.0	44,682	83.3	1.0	81.6	85.0
45–54	57,600	0.9	56,700	58,600	1,611.6	1,584.2	1,639.0	52,961	91.9	0.9	90.3	93.5
≥55	58,800	1.0	57,700	59,900	1,312.2	1,286.6	1,337.8	56,231	95.6	1.0	93.8	97.5
Transmission category[d]												
Male-to-male sexual contact[e]	181,300	0.8	178,500	184,000	—	—	—	146,598	80.9	0.8	79.7	82.1
Injection drug use[f]	20,200	2.7	19,200	21,300	—	—	—	18,866	93.2	2.7	88.6	98.4
Male-to-male sexual contact[e] and injection drug use[f]	15,100	2.6	14,300	15,900	—	—	—	13,599	90.0	2.6	85.6	94.8
Heterosexual contact[g]	19,300	2.5	18,400	20,200	—	—	—	16,030	83.0	2.5	79.2	87.3
Subtotal[h]	236,200	0.7	233,100	239,400	1,000.0	986.6	1,013.4	195,410	82.7	0.7	81.6	83.8
Female												
Age (yr)												
13–24	1,100	9.7	900	1,300	19.0	15.4	22.6	620	55.6	10.0	46.7	68.6
25–34	5,400	3.6	5,000	5,800	118.6	110.3	126.9	4,011	74.2	3.6	69.4	79.8
35–44	10,300	2.1	9,900	10,700	246.4	236.4	256.4	9,045	87.6	2.1	84.2	91.3
45–54	13,800	1.7	13,400	14,300	392.2	379.4	405.1	12,885	93.2	1.7	90.3	96.4

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
≥55	17,800	1.6	17,200	18,300	342.4	331.4	353.4	17,098	96.2	1.6	93.2	99.4
Transmission category[d]												
Injection drug use[f]	10,100	3.3	9,500	10,800	—	—	—	9,533	94.4	3.1	88.7	100.0
Heterosexual contact[g]	38,100	1.5	37,000	39,200	—	—	—	33,887	89.0	1.5	86.4	91.7
Subtotal[h]	48,400	1.4	47,100	49,800	207.6	201.9	213.3	43,659	90.1	1.4	87.7	92.7
Total[h]	**284,700**	**0.6**	**281,200**	**288,100**	**606.3**	**599.0**	**613.6**	**239,069**	**84.0**	**0.6**	**83.0**	**85.0**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Male												
Age (yr)												
13–24	11,500	3.8	10,600	12,300	181.3	167.9	194.8	5,366	46.8	3.8	43.6	50.5
25–34	53,600	1.4	52,100	55,100	1,082.3	1,052.0	1,112.6	36,217	67.6	1.4	65.7	69.5
35–44	55,700	1.1	54,500	56,900	1,202.8	1,176.2	1,229.3	46,067	82.7	1.1	80.9	84.6
45–54	56,400	0.9	55,400	57,400	1,499.5	1,472.1	1,527.0	51,639	91.6	0.9	89.9	93.3
≥55	63,800	1.0	62,600	65,000	1,338.8	1,313.3	1,364.3	61,079	95.7	1.0	93.9	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	186,300	0.8	183,400	189,200	—	—	—	151,711	81.4	0.8	80.2	82.7
Injection drug use[f]	19,900	2.7	18,900	21,000	—	—	—	18,617	93.4	2.8	88.6	98.7
Male-to-male sexual contact[e] and injection drug use[f]	15,100	2.7	14,300	15,900	—	—	—	13,567	90.0	2.7	85.5	95.0
Heterosexual contact[g]	19,300	2.6	18,400	20,300	—	—	—	16,160	83.5	2.6	79.4	88.0
Subtotal[h]	241,000	0.7	237,600	244,300	986.2	972.4	1,000.0	200,368	83.2	0.7	82.0	84.3
Female												
Age (yr)												
13–24	1,000	12.0	760	1,200	16.5	12.6	20.4	566	56.6	12.7	45.8	74.0
25–34	5,300	4.0	4,800	5,700	114.5	105.4	123.5	3,874	73.7	4.1	68.3	80.0
35–44	9,900	2.3	9,500	10,400	232.2	221.8	242.5	8,719	87.9	2.3	84.2	92.0
45–54	13,500	1.8	13,000	13,900	372.1	359.2	384.9	12,555	93.2	1.8	90.1	96.5
≥55	18,900	1.6	18,300	19,500	352.9	341.7	364.1	18,221	96.3	1.6	93.3	99.4
Transmission category[d]												
Injection drug use[f]	10,000	3.4	9,400	10,600	—	—	—	9,418	94.5	3.1	88.6	100.0
Heterosexual contact[g]	38,400	1.6	37,200	39,500	—	—	—	34,277	89.4	1.6	86.7	92.2
Subtotal[h]	48,600	1.4	47,200	49,900	203.2	197.5	208.9	43,935	90.4	1.4	88.0	93.1
Total[h]	**289,500**	**0.6**	**285,900**	**293,200**	**599.0**	**591.5**	**606.5**	**244,303**	**84.4**	**0.6**	**83.3**	**85.5**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Male												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Age (yr)												
13–24	10,200	4.5	9,300	11,100	158.2	144.1	172.2	5,427	53.3i	4.6	48.9	58.5
25–34	54,700	1.6	53,000	56,400	1,104.7	1,070.4	1,138.9	37,327	68.2	1.6	66.2	70.4
35–44	58,400	1.2	57,000	59,800	1,244.9	1,215.3	1,274.5	48,144	82.5	1.2	80.5	84.5
45–54	55,700	1.0	54,600	56,800	1,453.3	1,424.5	1,482.1	50,884	91.3	1.0	89.6	93.2
≥55	69,000	1.0	67,700	70,300	1,382.3	1,356.4	1,408.3	65,979	95.6	1.0	93.8	97.4
Transmission category[d]												
Male-to-male sexual contact[e]	193,400	0.8	190,200	196,500	—	—	—	159,035	82.2i	0.8	80.9	83.6
Injection drug use[f]	19,700	2.8	18,600	20,800	—	—	—	18,423	93.4	2.8	88.5	98.9
Male-to-male sexual contact[e] and injection drug use[f]	15,000	2.8	14,200	15,800	—	—	—	13,539	90.2	2.8	85.5	95.4
Heterosexual contact[g]	19,600	2.7	18,500	20,600	—	—	—	16,450	84.1	2.7	79.8	88.8
Subtotal[h]	248,000	0.7	244,400	251,600	995.8	981.4	1,010.2	207,761	83.8i	0.7	82.6	85.0
Female												
Age (yr)												
13–24	960	13.8	700	1,200	15.5	11.3	19.7	551	57.6	14.8	45.4	78.9
25–34	5,100	4.5	4,700	5,600	110.8	101.0	120.5	3,797	74.0	4.5	68.0	81.2
35–44	9,800	2.5	9,300	10,300	228.1	216.8	239.3	8,560	87.2	2.5	83.1	91.7
45–54	13,100	1.9	12,600	13,600	355.1	342.1	368.1	12,238	93.3	1.9	90.0	96.8
≥55	20,200	1.6	19,600	20,800	361.4	350.1	372.8	19,435	96.2	1.6	93.3	99.4
Transmission category[d]												
Injection drug use[f]	9,900	3.5	9,300	10,600	—	—	—	9,349	94.5	3.1	88.4	100.0
Heterosexual contact[g]	39,100	1.6	37,800	40,300	—	—	—	34,984	89.6	1.6	86.8	92.5
Subtotal[h]	49,200	1.5	47,800	50,600	201.8	196.0	207.7	44,581	90.6	1.5	88.0	93.3
Total[h]	**297,200**	**0.7**	**293,400**	**301,100**	**603.0**	**595.2**	**610.8**	**252,342**	**84.9[i]**	**0.7**	**83.8**	**86.0**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

[a] Rates are per 100,000 population.
[b] Reported to the National HIV Surveillance System.
[c] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[d] Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[e] Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[f] Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[g] Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[h] Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[i] Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 11. Estimated HIV prevalence among White persons aged ≥ 13 years, by assigned sex at birth and selected characteristics, 2017–2021—United States

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Male												
Age (yr)												
13–24	8,100	3.0	7,600	8,500	57.0	53.6	60.4	3,303	41.0	3.0	38.7	43.6
25–34	34,700	1.3	33,800	35,500	270.6	263.7	277.5	23,931	69.0	1.3	67.3	70.9
35–44	43,100	1.0	42,300	44,000	369.0	361.8	376.2	36,343	84.2	1.0	82.6	85.9
45–54	87,900	0.7	86,800	89,100	657.8	649.2	666.4	81,600	92.8	0.7	91.6	94.0
≥ 55	112,900	0.8	111,200	114,700	352.1	346.8	357.5	108,600	96.2	0.8	94.7	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	233,300	0.7	230,100	236,500	—	—	—	207,430	88.9	0.7	87.7	90.2
Injection drug use[f]	15,100	3.2	14,100	16,000	—	—	—	12,864	85.3	3.2	80.2	91.1
Male-to-male sexual contact[e] and injection drug use[f]	25,500	2.1	24,400	26,500	—	—	—	23,036	90.4	2.1	86.8	94.3
Heterosexual contact[g]	11,800	3.2	11,000	12,500	—	—	—	9,371	79.7	3.3	75.0	85.1
Subtotal[h]	286,700	0.6	283,100	290,300	341.1	336.8	345.4	253,777	88.5	0.6	87.4	89.6
Female												
Age (yr)												
13–24	1,200	7.4	1,000	1,400	9.2	7.8	10.5	557	45.5	7.6	39.7	53.2
25–34	5,700	3.0	5,400	6,000	45.8	43.2	48.5	4,094	71.9	3.0	68.0	76.3
35–44	8,900	2.1	8,500	9,300	77.1	74.0	80.2	7,499	84.3	2.1	81.0	87.9
45–54	13,200	1.7	12,800	13,700	98.4	95.1	101.7	12,141	91.8	1.7	88.8	95.0
≥ 55	13,800	2.0	13,300	14,400	37.7	36.2	39.2	13,126	95.0	2.0	91.4	98.9
Transmission category[d]												
Injection drug use[f]	13,900	2.8	13,100	14,700	—	—	—	12,194	87.8	2.8	83.2	93.0
Heterosexual contact[g]	28,500	1.8	27,500	29,500	—	—	—	24,809	86.9	1.8	84.0	90.1
Subtotal[h]	42,900	1.5	41,600	44,100	49.0	47.5	50.5	37,417	87.3	1.5	84.8	90.0
Total[h]	**329,600**	**0.6**	**325,700**	**333,400**	**192.1**	**189.9**	**194.4**	**291,194**	**88.4**	**0.6**	**87.3**	**89.4**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male												
Age (yr)												
13–24	7,100	3.6	6,600	7,600	50.7	47.1	54.2	3,158	44.7	3.6	41.7	48.0
25–34	35,600	1.4	34,700	36,600	277.9	270.4	285.5	24,718	69.4	1.4	67.5	71.3
35–44	43,400	1.1	42,500	44,300	368.6	360.9	376.3	36,326	83.7	1.1	82.0	85.4
45–54	81,200	0.7	80,000	82,300	626.1	617.3	634.8	75,180	92.6	0.7	91.3	93.9
≥ 55	122,700	0.7	120,900	124,500	376.9	371.4	382.4	118,086	96.2	0.7	94.8	97.6
Transmission category[d]												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Male-to-male sexual contact[e]	235,900	0.7	232,600	239,200	—	—	—	210,596	89.3	0.7	88.1	90.5
Injection drug use[f]	15,400	3.2	14,400	16,400	—	—	—	13,025	84.5	3.3	79.5	90.3
Male-to-male sexual contact[e] and injection drug use[f]	25,700	2.1	24,600	26,800	—	—	—	23,210	90.3	2.1	86.7	94.3
Heterosexual contact[g]	11,900	3.3	11,200	12,700	—	—	—	9,578	80.2	3.3	75.4	85.8
Subtotal[h]	290,000	0.6	286,300	293,700	344.9	340.5	349.3	257,468	88.8	0.6	87.7	89.9
Female												
Age (yr)												
13–24	1,100	8.5	950	1,300	8.6	7.2	10.0	543	47.8	8.8	40.9	57.3
25–34	5,700	3.2	5,300	6,000	45.7	42.8	48.6	4,030	71.0	3.2	66.8	75.9
35–44	9,000	2.2	8,600	9,300	77.0	73.7	80.3	7,524	84.1	2.2	80.6	87.9
45–54	12,700	1.8	12,300	13,200	97.6	94.2	101.1	11,647	91.6	1.8	88.5	94.9
≥ 55	15,100	1.9	14,500	15,600	40.5	39.0	42.1	14,322	95.1	2.0	91.6	98.9
Transmission category[d]												
Injection drug use[f]	14,100	2.9	13,300	14,900	—	—	—	12,349	87.6	2.9	82.9	92.8
Heterosexual contact[g]	29,000	1.8	28,000	30,000	—	—	—	25,303	87.2	1.8	84.2	90.4
Subtotal[h]	43,500	1.5	42,200	44,800	49.8	48.3	51.3	38,066	87.4	1.5	84.9	90.2
Total[h]	**333,600**	**0.6**	**329,600**	**337,500**	**194.4**	**192.2**	**196.7**	**295,534**	**88.6**	**0.6**	**87.6**	**89.7**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Male												
Age (yr)												
13–24	6,200	4.2	5,700	6,700	45.0	41.3	48.7	3,025	48.7	4.2	45.0	53.1
25–34	36,000	1.5	34,900	37,100	280.5	272.2	288.8	25,060	69.6	1.5	67.6	71.8
35–44	44,300	1.1	43,300	45,300	373.3	365.1	381.6	36,760	82.9	1.1	81.1	84.8
45–54	74,300	0.8	73,200	75,400	591.4	582.6	600.3	68,600	92.3	0.8	90.9	93.7
≥ 55	132,100	0.7	130,200	133,900	400.0	394.4	405.6	127,168	96.3	0.7	94.9	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	238,100	0.7	234,800	241,400	—	—	—	213,222	89.6	0.7	88.3	90.8
Injection drug use[f]	15,800	3.3	14,700	16,800	—	—	—	13,209	83.9	3.3	78.8	89.6
Male-to-male sexual contact[e] and injection drug use[f]	25,900	2.2	24,800	27,000	—	—	—	23,416	90.4	2.2	86.7	94.4
Heterosexual contact[g]	12,100	3.4	11,300	12,900	—	—	—	9,727	80.3	3.4	75.3	86.0
Subtotal[h]	292,900	0.7	289,200	296,700	348.3	343.9	352.8	260,613	89.0	0.7	87.8	90.1
Female												
Age (yr)												
13–24	1,100	9.8	860	1,300	8.2	6.6	9.7	544	50.9	10.1	42.8	63.0
25–34	5,700	3.6	5,300	6,100	46.2	43.0	49.5	4,012	70.1	3.6	65.5	75.4
35–44	9,000	2.4	8,600	9,400	77.0	73.4	80.6	7,559	83.7	2.4	80.0	87.8
45–54	12,200	1.9	11,700	12,600	96.7	93.1	100.3	11,147	91.4	1.9	88.1	95.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
≥ 55	16,400	1.9	15,700	17,000	43.4	41.8	45.1	15,568	95.2	1.9	91.8	98.8
Transmission category[d]												
Injection drug use[f]	14,400	2.9	13,600	15,200	—	—	—	12,570	87.3	2.9	82.6	92.6
Heterosexual contact[g]	29,600	1.8	28,500	30,600	—	—	—	25,850	87.5	1.8	84.4	90.7
Subtotal[h]	44,400	1.6	43,000	45,700	50.7	49.2	52.3	38,830	87.5	1.6	84.9	90.3
Total[h]	**337,300**	**0.6**	**333,300**	**341,300**	**196.6**	**194.3**	**199.0**	**299,443**	**88.8**	**0.6**	**87.7**	**89.8**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Male												
Age (yr)												
13–24	5,300	5.2	4,800	5,800	38.2	34.3	42.1	2,768	52.3	5.3	47.4	58.2
25–34	35,700	1.7	34,500	36,900	282.7	273.4	292.1	24,805	69.5	1.7	67.3	71.9
35–44	45,300	1.2	44,200	46,400	368.9	360.0	377.8	37,367	82.4	1.2	80.5	84.5
45–54	68,200	0.8	67,100	69,400	540.2	531.3	549.1	62,758	92.0	0.8	90.5	93.5
≥ 55	139,900	0.7	138,000	141,800	417.2	411.4	422.9	134,636	96.3	0.7	94.9	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	239,200	0.7	235,800	242,700	—	—	—	214,917	89.8	0.7	88.6	91.1
Injection drug use[f]	16,100	3.4	15,000	17,200	—	—	—	13,271	82.4	3.4	77.2	88.3
Male-to-male sexual contact[e] and injection drug use[f]	25,800	2.2	24,700	27,000	—	—	—	23,310	90.2	2.2	86.5	94.4
Heterosexual contact[g]	12,200	3.5	11,300	13,000	—	—	—	9,820	80.6	3.6	75.4	86.6
Subtotal[h]	294,400	0.7	290,500	298,300	346.6	342.0	351.2	262,334	89.1	0.7	87.9	90.3
Female												
Age (yr)												
13–24	950	12.1	720	1,200	7.2	5.5	8.9	498	52.5	12.8	42.4	68.7
25–34	5,700	4.0	5,200	6,100	46.5	42.8	50.2	3,945	69.3	4.1	64.3	75.3
35–44	9,000	2.6	8,500	9,500	75.4	71.5	79.3	7,475	83.0	2.7	78.9	87.5
45–54	11,800	2.0	11,300	12,300	95.5	91.7	99.4	10,771	91.2	2.1	87.7	95.0
≥ 55	17,400	1.9	16,800	18,100	46.7	45.0	48.4	16,596	95.3	1.9	91.9	98.9
Transmission category[d]												
Injection drug use[f]	14,500	3.0	13,600	15,300	—	—	—	12,610	87.1	3.0	82.3	92.6
Heterosexual contact[g]	30,000	1.9	28,900	31,100	—	—	—	26,273	87.6	1.9	84.5	91.0
Subtotal[h]	44,900	1.6	43,500	46,300	51.6	49.9	53.2	39,285	87.6	1.6	84.9	90.4
Total[h]	**339,300**	**0.6**	**335,100**	**343,400**	**197.3**	**194.9**	**199.7**	**301,619**	**88.9**	**0.6**	**87.8**	**90.0**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Male												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Age (yr)												
13–24	4,500	6.3	4,000	5,100	32.8	28.7	36.8	2,616	57.7i	6.4	51.4	65.9
25–34	35,500	1.9	34,200	36,800	283.7	273.3	294.1	24,900	70.2	1.9	67.7	72.9
35–44	46,500	1.3	45,300	47,700	375.0	365.3	384.7	38,273	82.3	1.3	80.2	84.5
45–54	63,300	0.9	62,200	64,500	513.0	503.7	522.4	58,032	91.6	0.9	90.0	93.3
≥ 55	146,600	0.7	144,600	148,600	435.2	429.3	441.1	141,132	96.3	0.7	95.0	97.6
Transmission category[d]												
Male-to-male sexual contact[e]	240,800	0.7	237,300	244,300	—	—	—	217,223	90.2	0.7	88.9	91.6
Injection drug use[f]	16,400	3.6	15,300	17,600	—	—	—	13,440	81.7	3.6	76.4	87.8
Male-to-male sexual contact[e] and injection drug use[f]	25,900	2.3	24,700	27,100	—	—	—	23,373	90.3	2.3	86.4	94.5
Heterosexual contact[g]	12,200	3.7	11,400	13,100	—	—	—	9,915	81.0	3.7	75.5	87.3
Subtotal[h]	296,400	0.7	292,400	300,400	349.8	345.0	354.5	264,953	89.4	0.7	88.2	90.6
Female												
Age (yr)												
13–24	920	13.7	670	1,200	7.0	5.1	8.9	521	56.5	14.8	44.5	77.2
25–34	5,500	4.6	5,000	6,000	45.7	41.6	49.8	3,820	69.0	4.6	63.4	75.8
35–44	9,200	2.9	8,700	9,700	76.1	71.7	80.4	7,546	82.2	2.9	77.7	87.1
45–54	11,500	2.2	11,000	12,000	95.1	90.9	99.2	10,424	90.7	2.2	86.9	94.8
≥ 55	18,500	1.9	17,800	19,200	49.4	47.6	51.2	17,607	95.2	1.9	91.8	98.8
Transmission category[d]												
Injection drug use[f]	14,700	3.1	13,800	15,600	—	—	—	12,783	86.7	3.1	81.7	92.4
Heterosexual contact[g]	30,500	1.9	29,300	31,700	—	—	—	26,736	87.7	1.9	84.5	91.2
Subtotal[h]	45,600	1.7	44,200	47,100	52.5	50.8	54.3	39,918	87.5	1.7	84.7	90.4
Total[h]	**342,000**	**0.6**	**337,800**	**346,300**	**199.3**	**196.8**	**201.8**	**304,871**	**89.1**	**0.6**	**88.0**	**90.3**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥ 13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤ 1,000 to reflect model uncertainty.

[a] Rates are per 100,000 population.
[b] Reported to the National HIV Surveillance System.
[c] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[d] Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total.
[e] Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
[f] Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
[g] Heterosexual contact with a person known to have, or with a risk factor for, HIV infection.
[h] Includes persons with other risk factors, including hemophilia, blood transfusion, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.
[i] Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 12. Estimated HIV prevalence among males (based on sex assigned at birth) with HIV attributed to male-to-male sexual contact, by race/ethnicity and age, 2017–2021— United States

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2017								
Black/African American									
Age (yr)									
13–24	27,000	1.5	26,200	27,900	11,751	43.4	1.5	42.2	44.8
25–34	64,400	0.9	63,300	65,500	49,334	76.6	0.9	75.3	77.9
35–44	37,500	1.0	36,800	38,200	33,136	88.4	1.0	86.7	90.1
45–54	41,300	1.0	40,500	42,100	38,941	94.3	1.0	92.5	96.1
≥ 55	34,600	1.3	33,700	35,600	33,421	96.5	1.3	94.0	99.1
Subtotal	204,900	0.7	202,100	207,700	166,582	81.3	0.7	80.2	82.4
Hispanic/Latino[b]									
Age (yr)									
13–24	14,700	2.3	14,100	15,400	5,410	36.7	2.3	35.2	38.4
25–34	42,600	1.2	41,700	43,600	28,774	67.5	1.2	66.0	69.1
35–44	39,500	1.0	38,700	40,300	32,996	83.6	1.0	81.9	85.3
45–54	42,300	0.9	41,600	43,100	38,895	91.9	0.9	90.3	93.6
≥ 55	28,200	1.3	27,400	28,900	26,836	95.3	1.3	92.8	97.8
Subtotal	167,300	0.7	164,900	169,800	132,912	79.4	0.7	78.3	80.6
White									
Age (yr)									
13–24	6,900	3.3	6,500	7,400	2,847	41.1	3.3	38.7	44.0
25–34	28,500	1.4	27,700	29,300	20,026	70.4	1.4	68.4	72.4
35–44	34,400	1.1	33,600	35,100	29,247	85.1	1.1	83.3	87.0
45–54	71,400	0.7	70,400	72,400	66,498	93.1	0.7	91.8	94.5
≥ 55	92,100	0.8	90,600	93,600	88,812	96.4	0.8	94.8	98.0
Subtotal	233,300	0.7	230,100	236,500	207,430	88.9	0.7	87.7	90.2
All[c]									
Age (yr)									
13–24	52,300	1.1	51,200	53,500	21,699	41.5	1.1	40.5	42.4
25–34	147,800	0.6	146,000	149,500	107,492	72.7	0.6	71.9	73.6
35–44	121,900	0.6	120,500	123,300	104,570	85.8	0.6	84.8	86.8
45–54	167,800	0.5	166,300	169,400	156,310	93.1	0.5	92.3	94.0
≥ 55	165,200	0.6	163,300	167,200	158,993	96.2	0.6	95.1	97.4
Total[c]	**655,100**	**0.4**	**650,000**	**660,200**	**549,064**	**83.8**	**0.4**	**83.2**	**84.5**

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2018								
Black/African American									
Age (yr)									
13–24	24,900	1.8	24,000	25,700	11,293	45.4	1.8	43.9	47.1
25–34	68,700	0.9	67,500	70,000	52,274	76.1	0.9	74.7	77.4

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2018								
35–44	39,900	1.0	39,100	40,700	35,300	88.4	1.0	86.6	90.2
45–54	40,100	1.0	39,300	40,900	37,850	94.3	1.0	92.5	96.2
≥ 55	38,400	1.3	37,500	39,400	37,085	96.5	1.3	94.1	98.9
Subtotal	212,100	0.7	209,200	215,000	173,802	81.9	0.7	80.8	83.1
Hispanic/Latino[b]									
Age (yr)									
13–24	13,600	2.6	12,900	14,300	5,350	39.3	2.6	37.4	41.4
25–34	45,100	1.2	44,000	46,200	30,446	67.5	1.2	65.9	69.2
35–44	41,200	1.1	40,300	42,100	34,366	83.4	1.1	81.7	85.2
45–54	42,700	0.9	41,900	43,500	39,256	91.8	1.0	90.2	93.6
≥ 55	31,700	1.3	30,900	32,500	30,263	95.4	1.3	93.1	97.8
Subtotal	174,400	0.7	171,800	177,000	139,681	80.1	0.7	78.9	81.3
White									
Age (yr)									
13–24	6,100	3.8	5,600	6,500	2,745	45.1	3.9	41.9	48.7
25–34	29,100	1.5	28,200	29,900	20,562	70.7	1.5	68.7	72.9
35–44	34,500	1.2	33,700	35,300	29,242	84.7	1.2	82.8	86.7
45–54	65,900	0.8	64,900	66,900	61,263	93.0	0.8	91.6	94.5
≥ 55	100,300	0.8	98,800	101,900	96,784	96.4	0.8	95.0	98.0
Subtotal	235,900	0.7	232,600	239,200	210,596	89.3	0.7	88.1	90.5
All[c]									
Age (yr)									
13–24	47,700	1.3	46,500	48,900	20,921	43.9	1.3	42.7	45.0
25–34	155,600	0.6	153,700	157,500	112,957	72.6	0.6	71.7	73.5
35–44	126,500	0.6	125,000	127,900	108,371	85.7	0.6	84.7	86.7
45–54	161,300	0.5	159,700	162,800	150,081	93.1	0.5	92.2	94.0
≥ 55	181,900	0.6	179,900	184,000	175,144	96.3	0.6	95.2	97.4
Total[c]	**673,000**	**0.4**	**667,700**	**678,200**	**567,472**	**84.3**	**0.4**	**83.7**	**85.0**

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2019								
Black/African American									
Age (yr)									
13–24	22,800	2.1	21,900	23,700	11,116	48.8	2.1	46.9	50.9
25–34	72,100	1.0	70,700	73,500	54,447	75.5	1.0	74.1	77.0
35–44	43,000	1.0	42,100	43,900	37,874	88.1	1.0	86.3	89.9
45–54	38,900	1.0	38,100	39,700	36,608	94.2	1.0	92.3	96.2
≥ 55	42,200	1.2	41,200	43,300	40,798	96.6	1.2	94.3	99.0
Subtotal	219,000	0.7	216,000	222,000	180,843	82.6	0.7	81.5	83.7
Hispanic/Latino[b]									
Age (yr)									
13–24	12,400	3.1	11,600	13,100	5,383	43.5	3.1	41.0	46.4
25–34	47,200	1.3	45,900	48,400	31,947	67.7	1.3	66.0	69.6

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2019								
35–44	43,300	1.2	42,300	44,300	36,042	83.2	1.2	81.4	85.1
45–54	42,500	1.0	41,700	43,400	39,015	91.7	1.0	89.9	93.5
≥ 55	35,800	1.2	35,000	36,700	34,211	95.4	1.2	93.2	97.7
Subtotal	181,300	0.8	178,500	184,000	146,598	80.9	0.8	79.7	82.1
White									
Age (yr)									
13–24	5,400	4.5	4,900	5,800	2,630	49.0	4.6	45.0	53.7
25–34	29,200	1.6	28,300	30,200	20,770	71.1	1.7	68.9	73.5
35–44	35,100	1.2	34,300	36,000	29,579	84.2	1.2	82.2	86.3
45–54	60,100	0.8	59,100	61,100	55,735	92.8	0.8	91.3	94.3
≥ 55	108,300	0.8	106,700	109,900	104,508	96.5	0.8	95.1	98.0
Subtotal	238,100	0.7	234,800	241,400	213,222	89.6	0.7	88.3	90.8
All[c]									
Age (yr)									
13–24	43,300	1.6	41,900	44,600	20,546	47.5	1.6	46.1	49.0
25–34	161,300	0.7	159,200	163,500	116,994	72.5	0.7	71.6	73.5
35–44	132,600	0.6	131,000	134,300	113,255	85.4	0.6	84.3	86.5
45–54	153,700	0.5	152,200	155,300	142,799	92.9	0.5	91.9	93.8
≥ 55	198,900	0.6	196,800	201,100	191,621	96.3	0.6	95.3	97.4
Total[c]	**689,900**	**0.4**	**684,500**	**695,300**	**585,215**	**84.8**	**0.4**	**84.2**	**85.5**

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[b]								
Black/African American									
Age (yr)									
13–24	20,400	2.6	19,400	21,400	10,540	51.6	2.6	49.2	54.4
25–34	74,100	1.1	72,600	75,700	55,524	74.9	1.1	73.4	76.5
35–44	46,500	1.1	45,500	47,500	40,740	87.6	1.1	85.8	89.5
45–54	37,400	1.1	36,600	38,300	35,270	94.2	1.1	92.2	96.3
≥ 55	45,800	1.2	44,700	46,800	44,207	96.6	1.2	94.4	98.9
Subtotal	224,200	0.7	221,000	227,400	186,280	83.1	0.7	81.9	84.3
Hispanic/Latino[b]									
Age (yr)									
13–24	10,700	3.9	9,900	11,500	5,003	46.8	3.9	43.4	50.6
25–34	48,100	1.5	46,700	49,500	32,537	67.7	1.5	65.8	69.7
35–44	45,700	1.2	44,600	46,900	37,767	82.6	1.2	80.6	84.6
45–54	42,000	1.1	41,100	42,900	38,418	91.4	1.1	89.5	93.4
≥ 55	39,700	1.2	38,800	40,600	37,986	95.6	1.2	93.5	97.8
Subtotal	186,300	0.8	183,400	189,200	151,711	81.4	0.8	80.2	82.7
White									
Age (yr)									
13–24	4,600	5.6	4,100	5,100	2,415	52.5	5.7	47.3	59.0
25–34	28,800	1.8	27,800	29,900	20,534	71.2	1.8	68.8	73.9

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[b]								
35–44	35,700	1.3	34,800	36,700	30,072	84.1	1.3	82.0	86.4
45–54	55,100	0.9	54,100	56,000	50,923	92.5	0.9	90.9	94.2
≥ 55	115,000	0.8	113,300	116,700	110,972	96.5	0.8	95.1	97.9
Subtotal	239,200	0.7	235,800	242,700	214,917	89.8	0.7	88.6	91.1
All[c]									
Age (yr)									
13–24	38,000	1.9	36,600	39,500	19,201	50.5	1.9	48.6	52.5
25–34	163,700	0.8	161,300	166,100	118,326	72.3	0.8	71.2	73.4
35–44	139,700	0.7	137,800	141,500	118,723	85.0	0.7	83.9	86.1
45–54	146,400	0.6	144,700	148,000	135,672	92.7	0.6	91.7	93.7
≥ 55	214,100	0.5	211,900	216,400	206,315	96.3	0.5	95.3	97.4
Total[c]	**701,900**	**0.4**	**696,200**	**707,600**	**598,237**	**85.2**	**0.4**	**84.5**	**85.9**

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2021[b]								
Black/African American									
Age (yr)									
13–24	18,600	3.1	17,500	19,700	10,522	56.6[d]	3.1	53.3	60.2
25–34	74,900	1.2	73,200	76,600	56,005	74.8	1.2	73.1	76.5
35–44	51,000	1.1	49,800	52,100	44,414	87.1	1.1	85.2	89.1
45–54	36,300	1.2	35,400	37,100	34,075	93.9	1.2	91.8	96.2
≥ 55	49,400	1.2	48,200	50,500	47,610	96.5	1.2	94.3	98.8
Subtotal	230,100	0.8	226,700	233,500	192,625	83.7[d]	0.8	82.5	85.0
Hispanic/Latino[b]									
Age (yr)									
13–24	9,500	4.7	8,700	10,400	5,072	53.2[d]	4.7	48.7	58.5
25–34	49,300	1.7	47,700	50,900	33,736	68.4	1.7	66.2	70.7
35–44	48,600	1.3	47,300	49,900	40,024	82.4	1.3	80.3	84.6
45–54	42,000	1.2	41,100	43,000	38,343	91.2	1.2	89.2	93.3
≥ 55	43,800	1.1	42,900	44,800	41,861	95.5	1.1	93.4	97.7
Subtotal	193,400	0.8	190,200	196,500	159,035	82.2[d]	0.8	80.9	83.6
White									
Age (yr)									
13–24	4,000	6.7	3,400	4,500	2,304	58.2[d]	6.8	51.4	67.0
25–34	28,500	2.0	27,400	29,700	20,531	71.9	2.0	69.2	74.9
35–44	36,600	1.4	35,600	37,600	30,805	84.1	1.4	81.9	86.5
45–54	50,900	1.0	49,900	51,900	47,012	92.3	1.0	90.5	94.2
≥ 55	120,700	0.7	119,000	122,500	116,570	96.5	0.7	95.2	98.0
Subtotal	240,800	0.7	237,300	244,300	217,223	90.2	0.7	88.9	91.6
All[c]									
Age (yr)									
13–24	34,100	2.3	32,500	35,700	19,089	56.0[d]	2.3	53.5	58.7
25–34	165,100	0.8	162,400	167,800	119,823	72.6	0.8	71.4	73.8

	Persons living with diagnosed or undiagnosed HIV infection				Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		No.[a]	%	RSE (%)	95% CI	
	2021[b]								
35–44	148,500	0.7	146,400	150,500	125,834	84.8	0.7	83.6	86.0
45–54	140,700	0.6	139,100	142,400	130,173	92.5	0.6	91.4	93.6
≥ 55	228,500	0.5	226,100	230,900	220,100	96.3	0.5	95.3	97.3
Total[c]	**716,900**	**0.4**	**710,900**	**722,900**	**615,019**	**85.8[d]**	**0.4**	**85.1**	**86.5**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.
Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to column subtotals and total. Includes individuals assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and individuals assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

[a] Reported to the National HIV Surveillance System.
[b] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c] Includes data for all race/ethnicities.
[d] Indicates that difference from 2017 estimate was deemed statistically significantly (P<.05).

Table 13. Estimated HIV prevalence among persons aged ≥ 13 years, by area of residence, 2017–2021—United States and Puerto Rico

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Alabama	15,600	2.6	14,800	16,400	381.6	362.4	400.8	12,899	82.5	2.6	78.6	86.9
Alaska	820	10.8	710	1,000	136.2	116.7	165.0	705	85.7	8.7	70.7	100.0
Arizona	18,800	2.2	18,000	19,600	319.6	305.6	333.6	15,606	83.1	2.2	79.6	86.9
Arkansas	6,900	3.8	6,400	7,400	276.6	255.8	297.3	5,458	79.0	3.9	73.5	85.5
California	146,700	0.8	144,300	149,100	447.0	439.5	454.4	126,922	86.5	0.8	85.1	88.0
Colorado	13,800	2.6	13,100	14,500	293.1	278.3	307.8	11,969	86.7	2.6	82.5	91.3
Connecticut	11,200	3.1	10,500	11,900	365.8	343.4	388.1	10,138	90.5	3.1	85.3	96.4
Delaware	3,700	5.3	3,300	4,100	456.1	408.6	503.7	3,218	86.9	5.4	78.7	97.0
District of Columbia	15,100	2.7	14,300	15,900	2523.3	2391.2	2655.5	14,039	93.0	2.7	88.4	98.1
Florida	125,800	0.9	123,600	128,100	700.3	687.7	712.9	107,755	85.6	0.9	84.1	87.2
Georgia	63,600	1.2	62,100	65,100	736.6	719.3	754.0	52,255	82.2	1.2	80.3	84.2
Hawaii	2,700	6.4	2,400	3,000	224.0	198.1	252.1	2,376	88.5	6.2	78.6	100.0
Idaho	1,500	10.7	1,200	1,800	105.0	82.9	127.0	1,093	74.2	11.2	61.3	93.9
Illinois	39,800	1.6	38,600	41,100	371.4	359.5	383.3	34,336	86.2	1.6	83.5	89.1
Indiana	13,000	2.7	12,300	13,700	235.0	222.4	247.6	10,859	83.4	2.7	79.1	88.1
Iowa	3,100	5.1	2,800	3,400	119.2	107.2	131.2	2,634	84.4	5.2	76.7	93.9
Kansas	3,600	5.3	3,200	4,000	150.2	134.4	165.9	2,972	82.5	5.4	74.7	92.2
Kentucky	8,400	3.3	7,900	9,000	226.1	211.6	240.6	6,903	81.8	3.3	76.9	87.4

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2017											
Louisiana	24,100	2.1	23,100	25,100	622.0	596.0	648.1	20,019	83.2	2.1	79.8	86.8
Maine	1,800	7.5	1,500	2,000	153.4	132.6	176.0	1,537	86.5	7.3	75.4	100.0
Maryland	36,100	1.7	34,900	37,300	712.8	689.0	736.6	32,102	89.0	1.7	86.1	92.0
Massachusetts	22,000	2.1	21,100	22,900	372.7	357.4	387.9	19,945	90.7	2.1	87.2	94.6
Michigan	18,300	2.5	17,400	19,200	216.6	206.2	227.0	15,449	84.5	2.5	80.6	88.8
Minnesota	9,300	3.0	8,800	9,900	201.7	189.7	213.7	8,140	87.1	3.1	82.2	92.7
Mississippi[c]	11,000	3.1	10,300	11,700	444.3	416.9	471.6	9,089	82.5	3.2	77.7	87.9
Missouri	14,000	2.7	13,300	14,700	273.6	259.3	287.9	12,140	86.7	2.7	82.4	91.5
Montana	680	10.2	600	820	76.5	68.0	91.9	604	88.9	7.4	74.1	100.0
Nebraska	2,500	6.0	2,200	2,800	158.5	139.8	177.2	2,085	83.7	6.1	74.9	95.0
Nevada	11,600	2.8	10,900	12,200	466.7	441.2	492.1	9,397	81.2	2.8	77.0	85.9
New Hampshire	1,300	8.7	1,200	1,500	111.8	98.8	130.8	1,156	88.3	7.1	75.5	100.0
New Jersey[d]	38,300	1.9	36,900	39,800	511.5	492.6	530.5	33,765	88.1	1.9	84.9	91.4
New Mexico	3,900	4.6	3,600	4,300	224.0	203.7	244.3	3,382	86.6	4.7	79.4	95.2
New York	133,000	0.9	130,600	135,300	799.2	784.9	813.4	122,472	92.1	0.9	90.5	93.8
North Carolina	35,600	1.6	34,500	36,700	412.1	399.0	425.1	30,380	85.4	1.6	82.8	88.2
North Dakota	630	13.7	460	800	100.7	73.5	127.8	404	64.3	14.8	50.7	88.1
Ohio	25,700	1.9	24,700	26,700	261.9	252.0	271.8	21,502	83.7	1.9	80.6	87.0
Oklahoma	7,300	3.8	6,800	7,900	225.8	209.1	242.4	5,930	81.1	3.8	75.5	87.6
Oregon	7,700	3.3	7,200	8,200	218.7	204.3	233.1	6,808	88.4	3.4	83.0	94.6
Pennsylvania[d]	38,700	1.6	37,500	39,900	354.9	343.4	366.3	34,533	89.2	1.6	86.5	92.2
Puerto Rico[d]	17,500	3.0	16,500	18,500	606.3	570.9	641.8	15,628	89.3	3.0	84.4	94.9
Rhode Island	2,800	5.8	2,500	3,100	304.7	274.2	339.3	2,498	90.0	5.4	80.8	100.0
South Carolina	19,600	2.3	18,700	20,500	462.5	441.6	483.5	16,214	82.8	2.3	79.2	86.7
South Dakota	740	12.0	570	910	103.0	79.1	127.3	565	76.8	12.6	62.1	100.0
Tennessee	19,600	2.3	18,700	20,400	347.1	331.7	362.4	16,564	84.7	2.3	81.1	88.6
Texas	106,300	1.0	104,300	108,300	462.7	454.0	471.4	87,340	82.2	1.0	80.6	83.7
Utah	3,300	5.4	3,000	3,700	136.7	122.3	151.2	2,725	82.0	5.5	74.2	91.7
Vermont	730	10.0	670	880	135.1	122.9	161.8	668	91.0	6.7	76.0	100.0
Virginia	25,700	2.0	24,700	26,700	361.1	346.8	375.4	21,991	85.5	2.0	82.2	89.0
Washington	14,900	2.5	14,200	15,600	239.4	227.7	251.2	12,980	87.1	2.5	83.0	91.6
West Virginia[c]	2,200	6.8	1,900	2,500	143.5	124.4	162.6	1,781	79.8	6.9	70.4	92.0
Wisconsin	7,100	3.7	6,600	7,600	144.9	134.5	155.3	6,043	85.4	3.7	79.7	92.1
Wyoming	370	15.1	320	480	77.2	67.0	100.1	322	86.8	9.7	67.0	100.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Alabama	16,000	2.6	15,200	16,800	390.0	370.3	409.8	13,331	83.2	2.6	79.1	87.6
Alaska	810	11.2	690	990	135.4	115.4	165.2	694	85.2	9.0	69.8	100.0
Arizona	19,500	2.2	18,600	20,300	325.1	310.8	339.4	16,246	83.4	2.3	79.9	87.2
Arkansas	7,000	3.9	6,500	7,600	280.7	259.1	302.3	5,614	79.8	4.0	74.1	86.4
California	149,300	0.9	146,800	151,800	452.7	445.1	460.3	129,640	86.8	0.9	85.4	88.3
Colorado	14,300	2.6	13,500	15,000	297.4	282.5	312.3	12,422	87.1	2.6	82.9	91.7

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Connecticut	11,300	3.1	10,600	12,000	368.2	345.5	390.9	10,281	91.1	3.2	85.8	97.0
Delaware	3,700	5.4	3,300	4,100	453.3	405.2	501.5	3,240	87.1	5.5	78.7	97.4
District of Columbia	14,900	2.7	14,100	15,700	2473.5	2340.8	2606.3	13,917	93.2	2.7	88.5	98.5
Florida	127,700	0.9	125,400	130,000	700.7	687.9	713.4	109,843	86.0	0.9	84.5	87.6
Georgia	65,600	1.2	64,000	67,200	751.1	733.2	769.0	54,270	82.7	1.2	80.8	84.7
Hawaii	2,600	6.7	2,300	3,000	218.4	194.0	247.2	2,324	88.8	6.2	78.5	100.0
Idaho	1,500	11.2	1,200	1,900	107.0	83.5	130.4	1,143	74.4	11.8	61.1	95.4
Illinois	40,500	1.6	39,200	41,900	379.1	366.8	391.3	35,131	86.6	1.7	83.9	89.5
Indiana	13,400	2.8	12,700	14,100	240.4	227.4	253.5	11,209	83.6	2.8	79.3	88.4
Iowa	3,200	5.2	2,900	3,600	123.4	110.9	135.9	2,744	84.7	5.2	76.9	94.3
Kansas	3,600	5.5	3,200	4,000	151.2	134.9	167.5	3,043	83.7	5.6	75.6	93.8
Kentucky	8,700	3.3	8,200	9,300	233.8	218.7	249.0	7,154	81.8	3.3	76.8	87.4
Louisiana	24,500	2.2	23,500	25,600	634.6	607.7	661.5	20,491	83.5	2.2	80.1	87.2
Maine	1,800	7.6	1,600	2,100	156.3	136.1	179.6	1,585	87.0	7.1	75.7	100.0
Maryland	36,400	1.7	35,200	37,700	717.5	693.3	741.7	32,609	89.5	1.7	86.6	92.6
Massachusetts	22,200	2.1	21,300	23,100	375.2	359.7	390.7	20,248	91.1	2.1	87.5	95.0
Michigan	18,500	2.5	17,600	19,400	218.9	208.2	229.6	15,762	85.1	2.5	81.1	89.5
Minnesota	9,600	3.0	9,100	10,200	206.4	194.0	218.7	8,416	87.3	3.1	82.4	92.9
Mississippi[c]	11,200	3.2	10,400	11,900	450.3	421.8	478.8	9,259	83.0	3.2	78.1	88.6
Missouri	14,300	2.7	13,600	15,100	279.3	264.6	293.9	12,445	86.7	2.7	82.4	91.5
Montana	700	10.2	630	840	77.7	70.1	93.3	628	90.2	7.1	75.1	100.0
Nebraska	2,500	6.1	2,200	2,800	158.9	139.8	178.1	2,128	84.7	6.2	75.6	96.4
Nevada	12,200	2.8	11,600	12,900	483.1	456.8	509.4	9,975	81.5	2.8	77.3	86.2
New Hampshire	1,400	8.5	1,200	1,600	116.7	104.0	136.1	1,224	89.1	6.8	76.4	100.0
New Jersey[d]	38,400	1.9	36,900	39,800	511.3	492.0	530.6	33,888	88.3	1.9	85.1	91.8
New Mexico	4,100	4.5	3,800	4,500	236.2	215.2	257.1	3,579	86.6	4.6	79.5	95.0
New York	133,200	0.9	130,800	135,600	802.1	787.6	816.6	123,159	92.4	0.9	90.8	94.1
North Carolina	36,600	1.6	35,400	37,700	418.0	404.7	431.2	31,306	85.6	1.6	83.0	88.4
North Dakota	680	13.9	500	870	108.9	79.2	138.6	442	64.8	15.0	50.9	89.2
Ohio	26,200	2.0	25,200	27,200	266.2	256.0	276.4	22,066	84.3	2.0	81.2	87.6
Oklahoma	7,500	3.8	7,000	8,100	231.6	214.3	248.8	6,091	80.9	3.8	75.3	87.4
Oregon	7,800	3.4	7,300	8,300	219.7	205.2	234.3	6,983	89.3	3.4	83.7	95.6
Pennsylvania[d]	39,300	1.7	38,100	40,600	360.0	348.3	371.7	35,164	89.4	1.7	86.6	92.4
Puerto Rico[d]	17,300	3.1	16,200	18,300	617.4	580.4	654.4	15,483	89.7	3.1	84.6	95.4
Rhode Island	2,800	5.8	2,500	3,100	307.7	278.8	342.8	2,549	90.6	5.3	81.3	100.0
South Carolina	20,000	2.3	19,100	20,900	466.2	444.8	487.6	16,683	83.3	2.3	79.6	87.3
South Dakota	770	12.3	600	960	107.3	83.3	133.1	600	77.7	12.3	62.6	100.0
Tennessee	20,200	2.2	19,300	21,000	353.9	338.3	369.6	17,166	85.2	2.3	81.6	89.1
Texas	109,800	1.0	107,800	111,900	471.3	462.3	480.2	90,838	82.7	1.0	81.2	84.3
Utah	3,500	5.3	3,200	3,900	142.0	127.2	156.8	2,910	82.5	5.4	74.7	92.1
Vermont	740	10.1	690	890	136.5	126.1	163.5	686	92.4	6.3	77.2	100.0
Virginia	26,300	2.0	25,200	27,300	366.8	352.1	381.4	22,597	86.0	2.0	82.7	89.5
Washington	15,400	2.5	14,600	16,100	242.9	231.0	254.9	13,381	87.1	2.5	83.1	91.7
West Virginia[c]	2,400	6.8	2,100	2,700	156.4	135.6	177.3	1,885	77.9	6.9	68.8	89.9

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2018											
Wisconsin	7,200	3.7	6,700	7,700	147.1	136.4	157.8	6,179	85.7	3.7	79.9	92.4
Wyoming	390	14.7	340	510	81.8	71.2	105.4	343	87.1	9.5	67.6	100.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Alabama	16,300	2.6	15,500	17,200	395.5	375.1	415.8	13,721	84.0	2.6	79.9	88.6
Alaska	840	11.3	710	1,000	139.9	118.4	171.0	711	84.6	9.3	69.2	100.0
Arizona	20,200	2.3	19,300	21,100	330.3	315.5	345.0	16,969	83.9	2.3	80.3	87.9
Arkansas	7,300	4.0	6,700	7,900	289.0	266.2	311.8	5,815	79.9	4.1	74.1	86.7
California	151,700	0.9	149,100	154,200	458.6	450.8	466.4	132,153	87.1	0.9	85.7	88.6
Colorado	14,600	2.6	13,900	15,400	300.6	285.3	315.9	12,790	87.5	2.6	83.2	92.2
Connecticut	11,400	3.2	10,600	12,100	370.6	347.5	393.7	10,392	91.5	3.2	86.2	97.6
Delaware	3,800	5.5	3,400	4,200	456.8	407.9	505.8	3,326	87.7	5.5	79.2	98.2
District of Columbia	14,800	2.8	14,000	15,700	2446.9	2313.0	2580.9	13,882	93.5	2.8	88.7	99.0
Florida	129,700	0.9	127,300	132,100	702.6	689.6	715.6	112,068	86.4	0.9	84.8	88.0
Georgia	67,500	1.2	65,900	69,100	762.6	744.1	781.2	56,154	83.2	1.2	81.2	85.3
Hawaii	2,600	6.9	2,300	3,000	219.3	196.0	248.9	2,339	89.4	6.1	78.8	100.0
Idaho	1,600	11.5	1,300	2,000	111.4	86.2	136.6	1,215	74.1	12.2	60.5	95.8
Illinois	40,500	1.7	39,200	41,900	379.9	367.2	392.6	35,248	86.9	1.7	84.1	89.9
Indiana	13,600	2.8	12,900	14,400	243.2	229.7	256.7	11,430	83.8	2.8	79.3	88.7
Iowa	3,400	5.3	3,000	3,700	127.8	114.6	140.9	2,832	84.0	5.3	76.2	93.7
Kansas	3,800	5.6	3,300	4,200	155.7	138.7	172.8	3,104	82.7	5.7	74.6	92.9
Kentucky	9,100	3.3	8,500	9,700	242.5	226.6	258.4	7,456	81.9	3.4	76.9	87.7
Louisiana	25,000	2.2	23,900	26,100	645.7	617.8	673.6	20,964	83.9	2.2	80.5	87.7
Maine	1,800	7.8	1,600	2,100	156.7	138.2	180.6	1,619	88.2	6.8	76.5	100.0
Maryland	36,400	1.8	35,200	37,700	715.2	690.6	739.9	32,785	90.0	1.8	87.0	93.2
Massachusetts	22,400	2.1	21,500	23,400	377.5	361.7	393.3	20,526	91.5	2.1	87.8	95.5
Michigan	19,100	2.5	18,100	20,000	225.0	214.0	236.1	16,367	85.9	2.5	81.9	90.3
Minnesota	9,900	3.1	9,300	10,500	210.4	197.7	223.0	8,679	87.7	3.1	82.7	93.3
Mississippi[c]	11,400	3.3	10,700	12,200	460.6	430.7	490.5	9,528	83.4	3.3	78.3	89.2
Missouri	14,500	2.7	13,800	15,300	282.0	267.0	297.0	12,667	87.1	2.7	82.7	92.0
Montana	710	10.3	650	860	78.8	72.0	94.7	652	91.4	6.7	76.0	100.0
Nebraska	2,600	6.3	2,200	2,900	161.3	141.4	181.1	2,184	85.2	6.4	75.9	97.2
Nevada	12,900	2.8	12,200	13,600	497.0	469.5	524.5	10,538	81.8	2.8	77.6	86.6
New Hampshire	1,400	8.4	1,300	1,700	119.9	107.7	139.7	1,275	89.8	6.5	77.1	100.0
New Jersey[d]	38,700	2.0	37,200	40,200	515.0	495.2	534.7	34,282	88.6	2.0	85.4	92.2
New Mexico	4,300	4.5	3,900	4,700	244.0	222.2	265.7	3,754	87.4	4.6	80.2	95.9
New York	132,800	0.9	130,400	135,200	802.1	787.4	816.8	123,173	92.7	0.9	91.1	94.5
North Carolina	37,900	1.6	36,700	39,100	427.3	413.7	440.9	32,577	86.0	1.6	83.4	88.9
North Dakota	740	14.3	530	950	117.7	84.7	150.8	486	65.6	15.5	51.3	91.3
Ohio	26,900	2.0	25,800	27,900	272.7	262.1	283.2	22,874	85.1	2.0	81.9	88.5
Oklahoma	7,800	3.9	7,300	8,400	239.9	221.8	258.0	6,321	80.5	3.9	74.9	87.1
Oregon	8,000	3.4	7,500	8,600	222.8	207.9	237.7	7,183	89.6	3.4	84.0	96.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Pennsylvania[d]	39,800	1.7	38,500	41,100	363.9	351.9	375.8	35,721	89.8	1.7	87.0	92.9
Puerto Rico[d]	17,300	3.1	16,200	18,300	614.0	576.6	651.3	15,556	90.1	3.1	85.0	96.0
Rhode Island	2,900	5.8	2,600	3,200	313.1	285.4	349.0	2,611	91.2	5.1	81.8	100.0
South Carolina	20,500	2.4	19,600	21,500	470.7	448.7	492.7	17,236	84.0	2.4	80.2	88.1
South Dakota	800	12.5	640	1,000	110.3	87.4	137.4	636	79.2	11.7	63.6	100.0
Tennessee	20,700	2.3	19,700	21,600	359.6	343.5	375.6	17,641	85.3	2.3	81.7	89.3
Texas	113,300	1.0	111,100	115,500	478.8	469.6	488.0	94,185	83.1	1.0	81.6	84.8
Utah	3,700	5.4	3,300	4,100	145.1	129.8	160.3	3,055	83.0	5.4	75.1	92.8
Vermont	750	10.2	690	900	137.8	127.5	165.4	694	92.5	6.3	77.1	100.0
Virginia	26,900	2.1	25,800	28,000	372.9	357.9	388.0	23,253	86.4	2.1	83.1	90.0
Washington	15,800	2.5	15,000	16,600	246.5	234.2	258.8	13,788	87.3	2.6	83.1	91.9
West Virginia[c]	2,600	7.2	2,300	3,000	170.7	146.6	194.7	1,990	75.7	7.3	66.4	88.2
Wisconsin	7,400	3.7	6,900	8,000	150.5	139.5	161.6	6,376	86.0	3.8	80.1	92.8
Wyoming	390	15.5	340	510	80.1	70.2	104.5	340	87.6	9.6	67.2	100.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Alabama	16,600	2.7	15,700	17,500	392.3	371.5	413.0	13,992	84.4	2.7	80.1	89.1
Alaska	850	11.7	720	1,000	141.4	120.1	173.8	721	84.9	9.3	69.1	100.0
Arizona	20,700	2.4	19,800	21,700	343.1	327.1	359.0	17,472	84.3	2.4	80.6	88.4
Arkansas	7,500	4.2	6,800	8,100	296.5	271.8	321.2	5,948	79.8	4.3	73.7	87.1
California	152,800	0.9	150,200	155,500	460.7	452.6	468.8	133,497	87.3	0.9	85.8	88.9
Colorado	14,900	2.7	14,100	15,600	303.4	287.5	319.3	13,031	87.7	2.7	83.3	92.5
Connecticut	11,300	3.3	10,600	12,100	366.3	342.8	389.8	10,391	91.7	3.3	86.2	98.0
Delaware	3,900	5.6	3,400	4,300	457.9	407.5	508.3	3,381	87.5	5.7	78.8	98.3
District of Columbia	14,500	2.9	13,700	15,400	2462.0	2322.2	2601.7	13,655	94.0	2.9	88.9	99.6
Florida	130,900	1.0	128,400	133,400	705.9	692.4	719.4	113,398	86.7	1.0	85.0	88.3
Georgia	68,600	1.3	66,800	70,300	766.3	746.7	785.8	57,318	83.6	1.3	81.5	85.8
Hawaii	2,600	7.1	2,400	3,000	215.6	192.1	245.5	2,351	89.1	6.2	78.2	100.0
Idaho	1,700	12.2	1,300	2,100	109.2	83.2	135.3	1,244	74.7	12.9	60.3	98.1
Illinois	40,600	1.8	39,200	42,000	376.6	363.5	389.6	35,390	87.2	1.8	84.3	90.3
Indiana	14,000	3.0	13,200	14,800	247.3	232.9	261.6	11,692	83.6	3.0	79.0	88.7
Iowa	3,400	5.5	3,000	3,800	128.4	114.4	142.3	2,887	84.4	5.6	76.1	94.7
Kansas	3,900	5.6	3,500	4,400	161.7	143.8	179.6	3,264	83.0	5.7	74.7	93.3
Kentucky	9,400	3.5	8,800	10,100	249.2	232.2	266.1	7,761	82.4	3.5	77.2	88.4
Louisiana	25,200	2.3	24,000	26,300	650.7	621.4	680.1	21,131	84.0	2.3	80.4	87.9
Maine	1,800	8.0	1,600	2,100	155.1	137.1	179.6	1,626	88.4	6.8	76.3	100.0
Maryland	36,400	1.8	35,200	37,700	701.9	677.2	726.7	32,922	90.3	1.8	87.2	93.6
Massachusetts	22,500	2.2	21,600	23,500	372.2	356.3	388.0	20,671	91.8	2.2	88.0	95.8
Michigan	19,300	2.6	18,400	20,300	226.5	215.1	238.0	16,642	86.0	2.6	81.9	90.6
Minnesota	10,000	3.1	9,400	10,700	211.0	198.0	224.0	8,858	88.1	3.2	83.0	93.9
Mississippi[c]	11,500	3.5	10,700	12,300	466.4	434.4	498.3	9,554	83.1	3.5	77.7	89.2
Missouri	14,600	2.8	13,800	15,400	282.4	266.7	298.0	12,755	87.4	2.8	82.8	92.5

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Montana	740	10.2	680	890	80.3	73.9	96.4	680	92.0	6.5	76.7	100.0
Nebraska	2,700	6.4	2,400	3,000	167.1	146.2	188.0	2,287	84.8	6.5	75.4	97.0
Nevada	13,300	3.0	12,600	14,100	510.4	480.6	540.1	10,889	81.6	3.0	77.1	86.6
New Hampshire	1,400	8.6	1,300	1,700	119.4	107.9	139.4	1,295	90.4	6.4	77.4	100.0
New Jersey[d]	38,700	2.0	37,200	40,200	493.6	474.0	513.2	34,376	88.9	2.0	85.5	92.5
New Mexico	4,400	4.6	4,000	4,800	248.1	225.5	270.7	3,867	87.5	4.7	80.2	96.3
New York	131,600	1.0	129,100	134,100	767.8	753.3	782.3	122,311	92.9	1.0	91.2	94.7
North Carolina	38,300	1.7	37,000	39,500	433.3	419.0	447.5	33,118	86.5	1.7	83.8	89.5
North Dakota	760	15.0	540	980	118.6	83.8	153.5	515	67.7	16.4	52.4	95.9
Ohio	27,300	2.0	26,200	28,300	274.4	263.5	285.3	23,327	85.6	2.0	82.3	89.1
Oklahoma	8,100	4.0	7,400	8,700	246.7	227.3	266.1	6,550	81.0	4.0	75.1	87.9
Oregon	8,100	3.5	7,500	8,700	223.7	208.3	239.2	7,269	89.6	3.5	83.8	96.3
Pennsylvania[d]	39,900	1.7	38,500	41,200	359.4	347.2	371.6	35,860	90.0	1.7	87.0	93.1
Puerto Rico[d]	17,100	3.2	16,000	18,200	588.2	551.4	624.9	15,496	90.6	3.2	85.3	96.7
Rhode Island	2,900	6.0	2,600	3,200	303.3	276.1	338.9	2,617	91.0	5.2	81.5	100.0
South Carolina	20,900	2.5	19,800	21,900	480.0	456.9	503.2	17,568	84.3	2.5	80.4	88.5
South Dakota	860	12.9	680	1,100	118.5	93.2	148.5	679	78.7	12.1	62.8	100.0
Tennessee	21,100	2.3	20,100	22,100	362.1	345.6	378.6	18,158	86.0	2.3	82.3	90.2
Texas	115,900	1.0	113,600	118,200	485.1	475.4	494.7	96,755	83.5	1.0	81.9	85.2
Utah	3,900	5.4	3,400	4,300	147.8	132.0	163.6	3,232	83.8	5.5	75.7	93.8
Vermont	750	10.4	700	900	134.0	124.3	161.4	697	92.8	6.3	77.0	100.0
Virginia	27,200	2.1	26,000	28,300	373.0	357.5	388.5	23,563	86.7	2.1	83.3	90.5
Washington	16,100	2.6	15,300	16,900	247.9	235.2	260.6	14,110	87.5	2.6	83.3	92.3
West Virginia[c]	2,800	7.6	2,400	3,200	181.3	154.2	208.4	2,099	75.4	7.8	65.6	88.7
Wisconsin	7,600	3.9	7,000	8,200	152.9	141.3	164.5	6,534	85.7	3.9	79.6	92.7
Wyoming	390	16.2	350	520	81.4	72.1	107.3	348	88.5	9.5	67.2	100.0

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Alabama	17,000	2.8	16,100	17,900	399.6	377.7	421.5	14,313	84.3	2.8	79.9	89.2
Alaska	860	12.1	740	1,100	142.3	123.3	176.1	743	86.7	8.8	70.0	100.0
Arizona	21,400	2.5	20,300	22,400	347.1	330.3	363.9	18,056	84.6	2.5	80.7	88.9
Arkansas	7,800	4.4	7,100	8,400	306.2	279.7	332.7	6,178	79.7	4.5	73.3	87.3
California	154,300	0.9	151,500	157,100	466.4	457.9	474.8	135,306	87.7	0.9	86.1	89.3
Colorado	15,300	2.8	14,400	16,100	308.7	291.9	325.4	13,328	87.3	2.8	82.9	92.3
Connecticut	11,400	3.3	10,600	12,100	366.0	342.1	389.9	10,466	92.0	3.3	86.4	98.5
Delaware	3,900	5.8	3,500	4,400	461.0	408.7	513.2	3,471	87.9	5.9	78.9	99.1
District of Columbia	14,300	3.0	13,500	15,200	2505.5	2361.2	2652.0	13,504	94.2	3.0	89.0	100.0
Florida	133,000	1.0	130,400	135,600	708.9	695.0	722.8	115,906	87.1	1.0	85.4	88.9
Georgia	70,100	1.4	68,200	72,000	775.1	754.4	795.7	58,899	84.0	1.4	81.8	86.3
Hawaii	2,700	7.3	2,400	3,000	218.3	194.4	249.4	2,369	89.1	6.3	78.0	100.0
Idaho	1,700	12.9	1,300	2,100	107.8	81.6	135.2	1,285	75.7	13.4	60.4	100.0
Illinois	40,500	1.8	39,000	42,000	377.8	364.2	391.5	35,388	87.4	1.8	84.3	90.7

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Indiana	14,500	3.0	13,700	15,400	255.5	240.4	270.6	12,208	84.0	3.0	79.3	89.2
Iowa	3,500	5.7	3,200	3,900	132.6	117.8	147.5	3,009	84.8	5.8	76.2	95.5
Kansas	4,100	5.7	3,700	4,600	168.6	149.7	187.5	3,446	83.8	5.8	75.3	94.4
Kentucky	9,800	3.6	9,100	10,400	257.1	238.8	275.4	8,066	82.7	3.7	77.2	89.1
Louisiana	25,300	2.4	24,200	26,500	657.3	626.5	688.2	21,376	84.4	2.4	80.6	88.5
Maine	1,900	8.2	1,700	2,200	156.6	139.3	181.8	1,670	89.0	6.7	76.6	100.0
Maryland	36,400	1.8	35,000	37,700	699.0	673.6	724.3	32,944	90.6	1.9	87.4	94.0
Massachusetts	22,600	2.2	21,600	23,600	374.6	358.3	390.8	20,793	92.0	2.2	88.1	96.1
Michigan	19,800	2.6	18,800	20,800	231.8	219.9	243.7	17,115	86.4	2.6	82.2	91.1
Minnesota	10,200	3.2	9,600	10,900	214.4	200.8	228.0	9,086	88.7	3.2	83.4	94.7
Mississippi[c]	11,700	3.7	10,900	12,600	475.5	441.3	509.8	9,764	83.2	3.7	77.6	89.6
Missouri	14,800	2.9	14,000	15,700	285.7	269.6	301.9	12,999	87.6	2.9	82.9	92.9
Montana	780	10.1	720	930	83.0	76.3	99.5	717	91.9	6.5	76.7	100.0
Nebraska	2,800	6.7	2,400	3,100	170.7	148.4	193.0	2,348	84.8	6.8	75.0	97.6
Nevada	13,800	3.1	13,000	14,700	521.5	489.6	553.3	11,336	82.0	3.1	77.3	87.3
New Hampshire	1,500	8.6	1,300	1,700	121.8	110.4	142.4	1,339	90.6	6.3	77.5	100.0
New Jersey[d]	39,000	2.1	37,400	40,600	497.0	476.8	517.3	34,636	88.8	2.1	85.3	92.6
New Mexico	4,600	4.7	4,100	5,000	254.6	230.9	278.3	3,990	87.7	4.8	80.2	96.7
New York	131,100	1.0	128,500	133,600	775.3	760.3	790.3	122,136	93.2	1.0	91.4	95.0
North Carolina	38,900	1.7	37,600	40,200	435.3	420.7	450.0	33,947	87.2	1.7	84.4	90.3
North Dakota	800	16.0	550	1,100	125.3	85.9	164.6	533	66.5	17.8	50.6	97.0
Ohio	27,700	2.1	26,600	28,900	278.8	267.3	290.3	23,842	86.0	2.1	82.6	89.6
Oklahoma	8,400	4.1	7,700	9,100	254.5	233.9	275.2	6,878	81.7	4.2	75.6	88.9
Oregon	8,300	3.7	7,700	8,900	227.6	211.3	243.9	7,433	89.6	3.7	83.6	96.6
Pennsylvania[d]	40,100	1.8	38,700	41,500	361.3	348.9	373.8	36,287	90.5	1.8	87.5	93.8
Puerto Rico[d]	17,100	3.2	16,000	18,200	587.9	550.5	625.3	15,579	91.1	3.3	85.7	97.3
Rhode Island	2,900	6.1	2,700	3,300	305.8	280.3	342.3	2,663	91.6	5.0	81.9	100.0
South Carolina	21,200	2.6	20,100	22,300	480.8	456.5	505.0	17,914	84.5	2.6	80.5	89.0
South Dakota	910	13.5	710	1,100	122.8	96.0	155.4	708	78.1	12.5	61.7	100.0
Tennessee	21,400	2.4	20,400	22,400	363.7	346.6	380.8	18,554	86.6	2.4	82.7	90.9
Texas	119,000	1.0	116,500	121,400	490.6	480.5	500.7	99,947	84.0	1.0	82.3	85.8
Utah	4,000	5.6	3,600	4,500	151.1	134.5	167.7	3,409	84.4	5.7	76.0	94.8
Vermont	760	10.4	710	920	135.1	126.4	162.8	714	93.5	6.1	77.6	100.0
Virginia	27,600	2.2	26,500	28,800	378.1	362.1	394.2	24,143	87.3	2.2	83.8	91.2
Washington	16,500	2.7	15,600	17,300	251.5	238.1	264.9	14,445	87.8	2.7	83.3	92.7
West Virginia[c]	2,900	8.3	2,400	3,300	186.3	156.1	216.6	2,172	76.1	8.5	65.4	90.8
Wisconsin	7,800	4.0	7,200	8,400	156.4	144.3	168.6	6,753	86.2	4.0	79.9	93.5
Wyoming	420	16.2	370	550	85.4	75.6	112.4	368	88.6	9.4	67.2	100.0

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/μL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥ 13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤ 1,000 to reflect model uncertainty

[a] Reported to the National HIV Surveillance System.

[b] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.

[c] Estimates should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2021.

[d] Estimates should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. 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 with incomplete reporting: New Jersey, Pennsylvania (excluding Philadelphia County), and Puerto Rico.

Table A1. Estimated HIV incidence among persons aged ≥ 13 years, by area of residence, 2017–2021—Ending the HIV Epidemic Initiative Phase I jurisdictions

	No.	RSE (%)	95% CI		Rate[a]	95% CI	
	2017						
Arizona							
Maricopa County	570	15.7	390	740	15.9	11.0	20.7
California							
Alameda County	190	25.7	90	280	13.2	6.5	19.8
Los Angeles County	1,500	9.0	1,200	1,800	17.8	14.6	20.9
Orange County	290	20.5	170	410	10.9	6.5	15.3
Riverside County	270	21.5	150	380	13.5	7.8	19.2
Sacramento County	220	23.6	120	320	17.3	9.3	25.3
San Bernardino County	270	21.1	160	390	15.7	9.2	22.3
San Diego County	430	16.8	290	580	15.6	10.4	20.7
San Francisco County	170	26.8	80	260	21.5	10.2	32.8
District of Columbia	230	24.8	120	340	38.6	19.8	57.4
Florida							
Broward County	650	13.4	480	820	39.5	29.1	49.9
Duval County	270	20.8	160	380	34.4	20.4	48.5
Hillsborough County	300	19.8	180	410	24.9	15.2	34.6
Miami-Dade County	1,100	10.1	910	1,400	49.3	39.5	59.0
Orange County	430	16.5	290	560	37.4	25.3	49.5
Palm Beach County	260	21.2	150	360	20.2	11.8	28.6
Pinellas County	160	26.6	80	250	19.1	9.1	29.1
Georgia							
Cobb County	190	26.1	90	280	29.8	14.5	45.1
DeKalb County	360	18.8	230	490	58.0	36.6	79.4
Fulton County	590	14.7	420	760	67.1	47.7	86.5
Gwinnett County	160	27.9	70	250	21.9	9.9	33.9
Illinois							
Cook County	910	11.3	710	1,100	20.9	16.3	25.5
Indiana							
Marion County	220	22.2	130	320	28.8	16.3	41.4
Louisiana							
East Baton Rouge Parish	170	26.3	80	250	44.7	21.6	67.7
Orleans Parish	150	27.9	70	230	44.1	19.9	68.2
Maryland							
Baltimore City	200	26.9	90	300	38.0	17.9	58.0

	No.	RSE (%)	95% CI		Rate[a]	95% CI	
	2017						
Montgomery County	100	*37.8	30	170	11.2	2.9	19.6
Prince George's County	200	26.3	100	310	26.7	12.9	40.5
Massachusetts							
Suffolk County	120	26.0	60	180	17.2	8.4	25.9
Michigan							
Wayne County	280	20.1	170	390	18.9	11.5	26.4
Nevada							
Clark County	480	16.3	330	630	26.5	18.0	34.9
New Jersey							
Essex County[c]	310	21.4	180	440	46.9	27.2	66.7
Hudson County[c]	160	29.7	70	250	27.9	11.7	44.2
New York							
Bronx County	400	17.2	270	540	34.3	22.7	45.8
Kings County	470	15.8	330	620	22.1	15.2	28.9
New York County	350	18.4	220	470	23.9	15.3	32.5
Queens County	330	18.7	210	460	17.0	10.8	23.3
North Carolina							
Mecklenburg County	290	18.7	180	390	32.1	20.3	43.9
Ohio							
Cuyahoga County	130	*30.4	50	210	12.2	4.9	19.4
Franklin County	190	25.0	100	280	17.8	9.1	26.5
Hamilton County	150	27.9	70	230	22.3	10.1	34.5
Pennsylvania							
Philadelphia County	390	16.1	270	520	29.7	20.3	39.1
Puerto Rico							
San Juan Municipio[c]	100	*35.2	30	170	33.4	10.4	56.5
Tennessee							
Shelby County	240	20.0	150	340	31.9	19.3	44.4
Texas							
Bexar County	300	20.2	180	420	19.1	11.5	26.6
Dallas County	830	12.3	630	1,000	39.3	29.8	48.7
Harris County	1,100	10.4	910	1,400	30.6	24.3	36.8
Tarrant County	300	20.6	180	420	17.8	10.6	25.0
Travis County	210	24.7	110	310	20.2	10.4	29.9
Washington							
King County	210	25.8	100	310	11.1	5.5	16.7

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2018						
Arizona							
Maricopa County	550	18.5	350	750	15.0	9.5	20.4
California							
Alameda County	190	28.5	80	300	13.5	5.9	21.0
Los Angeles County	1,500	10.3	1,200	1,800	17.4	13.9	20.9
Orange County	280	23.6	150	410	10.3	5.5	15.1

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2018						
Riverside County	290	23.4	150	420	14.3	7.7	20.8
Sacramento County	220	26.8	100	330	17.0	8.0	25.9
San Bernardino County	260	24.5	140	390	14.9	7.8	22.1
San Diego County	420	19.1	270	580	15.1	9.5	20.8
San Francisco County	160	*31.5	60	260	20.0	7.6	32.3
District of Columbia	230	26.7	110	350	38.2	18.2	58.3
Florida							
Broward County	530	17.1	350	700	31.9	21.2	42.6
Duval County	240	25.0	120	370	31.0	15.8	46.2
Hillsborough County	270	23.8	140	400	22.2	11.8	32.6
Miami-Dade County	1,100	12.1	800	1,300	45.5	34.6	56.3
Orange County	410	19.5	250	560	34.9	21.5	48.3
Palm Beach County	260	24.5	130	380	19.9	10.3	29.5
Pinellas County	140	*33.4	50	230	15.9	5.5	26.4
Georgia							
Cobb County	160	*33.0	60	260	25.2	8.9	41.5
DeKalb County	390	20.9	230	560	63.0	37.1	88.9
Fulton County	620	16.8	410	820	69.5	46.6	92.3
Gwinnett County	150	*34.3	50	250	19.6	6.4	32.7
Illinois							
Cook County	890	13.1	660	1,100	20.3	15.1	25.6
Indiana							
Marion County	220	25.0	110	330	28.5	14.5	42.5
Louisiana							
East Baton Rouge Parish	180	28.5	80	280	47.8	21.1	74.6
Orleans Parish	150	*30.6	60	240	45.6	18.2	72.9
Maryland							
Baltimore City	210	27.2	100	330	41.8	19.5	64.0
Montgomery County	90	*41.1	20	170	10.8	2.1	19.5
Prince George's County	260	24.8	130	380	33.6	17.2	50.0
Massachusetts							
Suffolk County	120	27.5	60	190	17.4	8.0	26.8
Michigan							
Wayne County	270	23.8	140	390	18.2	9.7	26.7
Nevada							
Clark County	520	18.3	330	700	27.9	17.9	37.9
New Jersey							
Essex County[c]	220	29.9	90	340	32.7	13.5	51.8
Hudson County[c]	150	*35.7	50	260	26.8	8.0	45.5
New York							
Bronx County	390	19.4	240	540	33.7	20.8	46.5
Kings County	450	18.4	290	610	21.0	13.4	28.6
New York County	310	22.1	170	440	21.2	12.0	30.4
Queens County	320	21.5	190	460	16.7	9.7	23.8
North Carolina							

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2018						
Mecklenburg County	240	23.6	130	350	26.3	14.1	38.6
Ohio							
Cuyahoga County	130	*33.7	40	220	12.5	4.2	20.8
Franklin County	200	27.5	90	310	18.4	8.5	28.3
Hamilton County	140	*32.9	50	230	20.6	7.3	33.9
Pennsylvania							
Philadelphia County	410	17.4	270	550	30.7	20.2	41.1
Puerto Rico							
San Juan Municipio[c]	70	*48.4	0	130	24.2	1.2	47.1
Tennessee							
Shelby County	250	21.9	140	360	33.2	18.9	47.4
Texas							
Bexar County	320	22.5	180	460	19.6	10.9	28.2
Dallas County	820	14.1	600	1,100	38.7	28.0	49.3
Harris County	1,100	12.0	860	1,400	29.8	22.8	36.8
Tarrant County	280	23.8	150	420	16.9	9.0	24.7
Travis County	240	26.0	120	360	22.6	11.1	34.2
Washington							
King County	260	25.0	130	390	13.9	7.1	20.7

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2019						
Arizona							
Maricopa County	510	22.2	290	730	13.6	7.7	19.5
California							
Alameda County	200	*31.9	80	330	14.1	5.3	22.9
Los Angeles County	1,400	12.1	1,100	1,700	16.6	12.7	20.5
Orange County	230	29.8	90	360	8.5	3.5	13.4
Riverside County	260	27.8	120	410	13.0	5.9	20.1
Sacramento County	210	*31.4	80	330	16.0	6.1	25.9
San Bernardino County	310	25.5	160	470	17.7	8.9	26.6
San Diego County	420	22.1	240	600	14.8	8.4	21.3
San Francisco County	120	*41.7	20	210	14.8	2.7	26.8
District of Columbia	190	*33.5	70	320	32.0	11.0	53.0
Florida							
Broward County	540	19.0	340	750	32.8	20.5	45.0
Duval County	220	*30.1	90	350	27.4	11.2	43.7
Hillsborough County	240	28.7	100	370	19.3	8.4	30.1
Miami-Dade County	980	14.2	700	1,200	42.2	30.4	53.9
Orange County	450	20.9	270	640	38.7	22.8	54.6
Palm Beach County	240	28.7	100	370	18.5	8.1	28.9
Pinellas County	150	*36.6	40	250	17.0	4.8	29.3
Georgia							
Cobb County	190	*34.7	60	320	30.1	9.6	50.6
DeKalb County	320	26.7	150	490	51.4	24.4	78.3

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2019						
Fulton County	530	21.0	310	750	58.7	34.5	82.9
Gwinnett County	190	*34.4	60	330	25.4	8.3	42.6
Illinois							
Cook County	810	15.9	560	1,100	18.6	12.8	24.4
Indiana							
Marion County	230	28.5	100	360	29.3	12.9	45.8
Louisiana							
East Baton Rouge Parish	160	*34.2	50	280	44.7	14.7	74.7
Orleans Parish	130	*38.4	30	230	39.0	9.6	68.3
Maryland							
Baltimore City	130	*40.4	30	240	26.2	5.4	47.0
Montgomery County	100	*47.6	10	180	10.9	0.7	21.1
Prince George's County	230	*30.3	90	370	30.7	12.4	49.0
Massachusetts							
Suffolk County	120	*31.1	50	190	16.7	6.5	26.9
Michigan							
Wayne County	280	25.8	140	420	19.2	9.5	28.9
Nevada							
Clark County	490	22.4	270	700	25.6	14.3	36.9
New Jersey							
Essex County[c]	200	*35.9	60	330	29.5	8.7	50.3
Hudson County[c]	110	*48.0	10	210	19.1	1.1	37.1
New York							
Bronx County	370	23.1	200	540	32.0	17.5	46.5
Kings County	400	22.2	230	580	18.9	10.7	27.2
New York County	270	26.8	130	420	18.8	8.9	28.7
Queens County	250	28.2	110	390	13.0	5.8	20.2
North Carolina							
Mecklenburg County	290	23.2	160	420	31.5	17.2	45.9
Ohio							
Cuyahoga County	130	*38.9	30	230	12.3	2.9	21.7
Franklin County	210	*30.7	80	330	18.9	7.5	30.2
Hamilton County	130	*39.3	30	220	18.3	4.2	32.5
Pennsylvania							
Philadelphia County	410	19.4	250	560	30.7	19.0	42.5
Puerto Rico							
San Juan Municipio[c]	80	*47.1	10	150	27.0	2.0	52.0
Tennessee							
Shelby County	280	23.3	150	400	36.1	19.6	52.6
Texas							
Bexar County	370	23.9	200	540	22.6	12.0	33.1
Dallas County	650	17.9	420	880	30.6	19.8	41.4
Harris County	1,200	13.5	850	1,500	30.4	22.3	38.4
Tarrant County	380	23.5	210	560	22.2	12.0	32.5
Travis County	180	*34.4	60	300	16.5	5.4	27.7

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2019						
Washington							
King County	220	*33.2	80	360	11.4	4.0	18.8

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2020 (COVID-19 Pandemic)[b]						
Arizona							
Maricopa County	470	28.9	200	740	12.8	5.5	20.0
California							
Alameda County	150	*42.5	30	280	10.6	1.8	19.4
Los Angeles County	1,400	14.2	980	1,700	16.0	11.5	20.4
Orange County	280	*31.5	110	450	10.3	3.9	16.6
Riverside County	280	*31.3	110	450	13.9	5.4	22.5
Sacramento County	180	*39.2	40	320	13.6	3.1	24.1
San Bernardino County	310	29.8	130	490	17.5	7.2	27.7
San Diego County	370	27.2	170	570	13.3	6.2	20.4
San Francisco County	120	*47.0	10	240	15.9	1.2	30.5
District of Columbia	140	*47.9	10	280	24.3	1.5	47.1
Florida							
Broward County	510	23.7	270	740	30.8	16.4	45.1
Duval County	280	*32.0	100	450	33.5	12.4	54.6
Hillsborough County	290	*31.3	110	470	23.7	9.1	38.2
Miami-Dade County	850	18.3	550	1,200	37.0	23.7	50.3
Orange County	440	25.5	220	670	36.9	18.4	55.3
Palm Beach County	300	*30.8	120	480	23.3	9.2	37.4
Pinellas County	160	*42.3	30	290	18.7	3.2	34.2
Georgia							
Cobb County	170	*45.1	20	330	26.9	3.1	50.7
DeKalb County	290	*34.5	100	490	46.4	14.9	77.9
Fulton County	590	24.5	300	870	64.3	33.4	95.3
Gwinnett County	...	...	...	...	...	...	...
Illinois							
Cook County	830	18.8	520	1,100	18.6	11.7	25.4
Indiana							
Marion County	240	*33.4	80	400	29.9	10.3	49.6
Louisiana							
East Baton Rouge Parish	120	*49.2	0	240	32.0	1.1	63.0
Orleans Parish	110	...	0	220	33.2	0.0	67.1
Maryland							
Baltimore City	180	*40.4	40	310	35.4	7.3	63.5
Montgomery County	...	...	...	...	...	...	...
Prince George's County	170	*41.6	30	300	20.5	3.8	37.2
Massachusetts							
Suffolk County	120	*33.9	40	200	17.3	5.8	28.8
Michigan							
Wayne County	270	*31.1	110	440	18.4	7.2	29.6

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2020 (COVID-19 Pandemic)[b]						
Nevada							
Clark County	530	25.7	260	800	28.1	13.9	42.2
New Jersey							
Essex County[c]	230	*38.6	60	400	32.2	7.8	56.6
Hudson County[c]	140	*48.7	10	280	23.6	1.1	46.1
New York							
Bronx County	390	26.0	190	580	32.2	15.8	48.5
Kings County	380	26.2	180	570	16.7	8.1	25.3
New York County	300	29.4	130	470	19.9	8.4	31.4
Queens County	290	*30.0	120	460	14.0	5.8	22.3
North Carolina							
Mecklenburg County	250	*31.2	100	400	26.3	10.2	42.5
Ohio							
Cuyahoga County	160	*38.6	40	290	15.3	3.7	26.9
Franklin County	180	*37.1	50	310	16.3	4.4	28.1
Hamilton County	120	*44.7	10	230	17.7	2.2	33.2
Pennsylvania							
Philadelphia County	280	*30.7	110	440	20.5	8.1	32.8
Puerto Rico							
San Juan Municipio[c]	...	...	...	...	...	...	...
Tennessee							
Shelby County	210	*32.6	80	350	27.9	10.0	45.8
Texas							
Bexar County	380	28.5	170	600	23.1	10.2	36.1
Dallas County	730	20.5	440	1,000	34.5	20.6	48.4
Harris County	1,100	16.9	730	1,400	28.3	18.9	37.7
Tarrant County	360	29.2	150	570	20.9	8.9	32.9
Travis County	170	*42.7	30	310	15.4	2.5	28.3
Washington							
King County	210	*39.6	50	370	10.7	2.4	19.0

	No.	RSE (%)	95% CI		Ratea	95% CI	
	2021[b]						
Arizona							
Maricopa County	460	*31.9	170	750	12.2	4.6	19.8
California							
Alameda County	170	*45.5	20	320	11.9	1.3	22.6
Los Angeles County	1,200	17.1	790	1,600	14.2	9.5	19.0
Orange County	230	*38.7	60	410	8.7	2.1	15.3
Riverside County	240	*37.9	60	430	12.0	3.1	20.9
Sacramento County	...	...	...	...	...	...	...
San Bernardino County	280	*35.5	80	470	15.5	4.7	26.3
San Diego County	410	29.3	170	640	14.6	6.2	23.1
San Francisco County	140	*49.9	0	280	19.3	0.4	38.1
District of Columbia	150	*46.8	10	300	26.9	2.2	51.7

	No.	RSE (%)	95% CI		Rate[a]	95% CI	
	2021[b]						
Florida							
Broward County	500	26.2	240	760	30.3	14.7	45.9
Duval County	230	*38.9	50	400	27.1	6.4	47.8
Hillsborough County	180	*44.2	20	330	14.1	1.9	26.4
Miami-Dade County	870	19.8	530	1,200	38.2	23.3	53.1
Orange County	460	27.4	210	700	37.9	17.5	58.3
Palm Beach County	230	*38.3	60	410	18.0	4.5	31.6
Pinellas County	...	...	...	...	...	...	...
Georgia							
Cobb County	...	...	...	...	...	...	...
DeKalb County	320	*37.1	90	550	50.4	13.7	87.0
Fulton County	530	28.7	230	830	58.5	25.5	91.4
Gwinnett County	...	...	...	...	...	...	...
Illinois							
Cook County	780	21.4	450	1,100	17.8	10.3	25.3
Indiana							
Marion County	210	*39.7	50	370	26.1	5.7	46.4
Louisiana							
East Baton Rouge Parish	...	...	...	...	...	...	...
Orleans Parish	...	...	...	...	...	...	...
Maryland							
Baltimore City	150	*48.0	10	280	29.7	1.7	57.6
Montgomery County	...	...	...	...	...	...	...
Prince George's County	200	*41.1	40	360	24.7	4.8	44.7
Massachusetts							
Suffolk County	120	*38.7	30	210	17.8	4.3	31.3
Michigan							
Wayne County	220	*39.7	50	390	14.9	3.3	26.6
Nevada							
Clark County	460	*32.2	170	740	23.6	8.7	38.6
New Jersey							
Essex County[c]	270	*34.3	90	450	37.8	12.4	63.3
Hudson County[c]	130	*49.0	0	260	21.9	0.8	43.0
New York							
Bronx County	380	29.1	160	600	32.4	13.9	50.9
Kings County	360	*30.0	150	570	16.3	6.7	25.8
New York County	260	*35.1	80	440	18.6	5.8	31.4
Queens County	270	*34.7	80	450	13.4	4.3	22.5
North Carolina							
Mecklenburg County	190	*37.9	50	330	20.3	5.2	35.3
Ohio							
Cuyahoga County	160	*46.8	10	300	14.8	1.2	28.3
Franklin County	150	*47.3	10	300	14.1	1.0	27.2
Hamilton County	...	...	...	...	...	...	...
Pennsylvania							

	No.	RSE (%)	95% CI		Rate[a]	95% CI	
	2021[b]						
Philadelphia County	290	*31.3	110	470	21.8	8.4	35.3
Puerto Rico							
San Juan Municipio[c]	...	...	...	...	...	...	...
Tennessee							
Shelby County	220	*33.6	80	370	29.3	10.0	48.7
Texas							
Bexar County	310	*35.2	90	520	18.4	5.7	31.1
Dallas County	750	22.5	420	1,100	35.4	19.7	51.0
Harris County	1,000	19.0	660	1,400	27.2	17.1	37.4
Tarrant County	320	*34.6	100	530	18.2	5.8	30.5
Travis County	190	*45.1	20	350	16.8	1.9	31.6
Washington							
King County	200	*46.3	20	390	10.5	1.0	20.1

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

Note. Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥ 13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates > 1,000 and to the nearest 10 for estimates ≤ 1,000 to reflect model uncertainty.
Estimates with an RSE 30%–50%, preceded by an asterisk (*), should be used with caution.
Estimates with an RSE > 50% are not shown and are replaced with an ellipsis (...).

[a] Rates are per 100,000 population.
[b] Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of diagnoses reported during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[c] Estimates should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey, Pennsylvania (excluding Philadelphia), and Puerto Rico.

Table A2. Estimated HIV prevalence among persons aged ≥ 13 years, by area of residence, 2017–2021—Ending the HIV Epidemic Phase 1 Jurisdictions

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2017								
Arizona									
Maricopa County	13,000	2.7	12,300—13,600	362.1	342.7—381.5	10,672	82.4	2.7	78.2—87.0
California									
Alameda County	6,700	4.0	6,200—7,200	475.6	438.5—512.8	5,813	86.8	4.0	80.5—94.2
Los Angeles County	54,300	1.4	52,800—55,800	639.7	622.2—657.2	47,840	88.1	1.4	85.7—90.5
Orange County	8,100	3.6	7,600—8,700	304.7	283.0—326.3	6,719	82.5	3.6	77.0—88.8
Riverside County	9,600	2.6	9,100—10,100	483.8	459.1—508.6	8,455	88.4	2.6	84.1—93.2
Sacramento County	5,000	4.3	4,500—5,400	392.7	359.5—425.8	4,173	84.1	4.3	77.5—91.8
San Bernardino County	5,300	4.3	4,800—5,700	304.1	278.4—329.8	4,092	77.4	4.3	71.3—84.5
San Diego County	14,900	2.6	14,100—15,600	533.4	506.4—560.4	12,848	86.4	2.6	82.2—91.0
San Francisco County	12,800	3.4	12,300—13,700	1,629.7	1,558.5—1,738.4	12,279	95.6	2.8	89.7—100.0
District of Columbia	15,100	2.7	14,300—15,900	2,523.3	2,391.2—2,655.5	14,039	93.0	2.7	88.4—98.1
Florida									

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2017								
Broward County	21,400	2.1	20,600—22,300	1,307.5	1,253.2—1,361.8	19,045	88.8	2.1	85.3—92.7
Duval County	7,100	3.9	6,500—7,600	905.6	836.6—974.6	5,834	82.4	3.9	76.6—89.2
Hillsborough County	7,900	3.6	7,300—8,500	661.1	613.9—708.4	6,628	83.8	3.7	78.2—90.2
Miami-Dade County	29,500	2.0	28,400—30,700	1,280.5	1,230.0—1,330.9	25,649	86.8	2.0	83.5—90.4
Orange County	10,100	3.2	9,500—10,700	885.3	830.0—940.6	8,298	82.3	3.2	77.5—87.8
Palm Beach County	8,900	3.6	8,300—9,600	702.9	653.4—752.4	7,724	86.6	3.6	80.9—93.1
Pinellas County	5,200	4.3	4,800—5,700	610.7	559.6—661.8	4,488	85.8	4.3	79.2—93.7
Georgia									
Cobb County	3,700	4.6	3,400—4,000	592.2	538.3—646.0	2,994	80.9	4.7	74.1—89.0
DeKalb County	9,600	3.1	9,000—10,200	1,551.6	1,456.1—1,647.1	8,108	84.1	3.2	79.3—89.7
Fulton County	16,800	2.4	16,000—17,600	1,917.6	1,828.0—2,007.2	14,230	84.9	2.4	81.1—89.0
Gwinnett County	3,400	4.5	3,100—3,700	460.3	419.8—500.8	2,716	79.4	4.5	73.0—87.1
Illinois									
Cook County	28,300	2.0	27,200—29,400	648.1	622.8—673.5	24,537	86.6	2.0	83.3—90.1
Indiana									
Marion County	5,300	4.2	4,900—5,700	680.9	624.7—737.0	4,475	84.6	4.2	78.1—92.2
Louisiana									
East Baton Rouge Parish	4,500	4.8	4,000—4,900	1,204.2	1,090.8—1,317.6	3,788	84.9	4.8	77.6—93.7
Orleans Parish	5,300	5.1	4,800—5,900	1,601.6	1,442.5—1,760.7	4,729	88.5	5.1	80.5—98.3
Maryland									
Baltimore City	11,800	3.3	11,000—12,500	2,281.1	2,132.0—2,430.3	10,855	92.2	3.3	86.5—98.6
Montgomery County	4,200	4.7	3,900—4,600	487.5	442.2—532.8	3,770	88.8	4.8	81.2—97.9
Prince George's County	8,800	3.3	8,200—9,400	1,158.4	1,084.4—1,232.4	7,579	86.0	3.3	80.9—91.9
Massachusetts									
Suffolk County	6,100	4.2	5,700—6,600	868.3	808.0—939.0	5,671	93.1	3.8	86.0—100.0
Michigan									
Wayne County	7,500	4.1	6,900—8,100	513.6	471.9—555.3	6,357	84.8	4.2	78.4—92.3
Nevada									
Clark County	9,800	3.0	9,200—10,400	540.9	509.1—572.6	7,935	80.9	3.0	76.4—86.0
New Jersey									
Essex County[d]	9,900	3.9	9,100—10,600	1,500.5	1,386.3—1,614.7	8,879	89.7	3.9	83.4—97.1
Hudson County[d]	5,400	5.1	4,900—6,000	959.1	863.0—1,055.3	4,752	87.2	5.2	79.3—97.0
New York									
Bronx County	28,300	1.8	27,300—29,300	2,406.9	2,323.7—2,490.1	26,493	93.6	1.8	90.5—96.9
Kings County	27,700	2.0	26,600—28,800	1,288.8	1,238.1—1,339.5	25,567	92.4	2.0	88.9—96.2
New York County	28,200	2.1	27,000—29,300	1,936.2	1,855.6—2,016.7	26,536	94.2	2.1	90.5—98.3
Queens County	16,900	2.5	16,100—17,800	867.3	825.0—909.7	15,303	90.4	2.5	86.2—95.0
North Carolina									
Mecklenburg County	6,500	3.8	6,000—7,000	730.6	676.8—784.4	5,598	85.9	3.8	80.0—92.7
Ohio									
Cuyahoga County	5,300	4.2	4,900—5,700	498.8	457.6—540.0	4,557	86.0	4.2	79.5—93.8
Franklin County	5,500	4.1	5,100—6,000	516.7	475.6—557.8	4,704	85.0	4.1	78.7—92.3
Hamilton County	3,600	5.1	3,200—3,900	526.2	473.1—579.3	2,856	80.1	5.2	72.7—89.1
Pennsylvania									

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2017								
Philadelphia County	18,300	2.4	17,400—19,100	1,380.3	1,316.2—1,444.3	16,746	91.7	2.4	87.6—96.1
Puerto Rico									
San Juan Municipio[d,e]	3,600	7.1	3,200—4,100	1,223.8	1,088.8—1,395.5	3,207	89.0	6.3	78.0—100.0
Tennessee									
Shelby County	7,100	3.8	6,500—7,600	925.5	855.7—995.3	6,031	85.2	3.9	79.2—92.2
Texas									
Bexar County	7,300	3.6	6,800—7,900	461.5	428.6—494.5	6,074	82.7	3.7	77.2—89.1
Dallas County	20,800	2.2	19,900—21,700	984.9	943.1—1,026.8	17,319	83.2	2.2	79.8—86.9
Harris County	29,700	1.9	28,600—30,700	792.8	763.5—822.0	24,623	83.0	1.9	80.1—86.2
Tarrant County	6,600	3.7	6,100—7,100	397.6	368.5—426.6	5,405	81.7	3.7	76.1—88.2
Travis County	5,600	4.2	5,200—6,100	547.2	502.1—592.3	4,693	83.4	4.2	77.1—90.9
Washington									
King County	7,700	3.7	7,200—8,300	413.4	383.2—443.6	6,745	87.1	3.7	81.2—93.9
Total	**604,200**	**0.4**	**599,200—609,200**	**801.5**	**794.9—808.1**	**528,428**	**87.5**	**0.4**	**86.7—88.2**

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2018								
Arizona									
Maricopa County	13,400	2.8	12,700—14,100	366.7	346.9—386.5	11,101	82.8	2.8	78.6—87.6
California									
Alameda County	6,900	4.0	6,300—7,400	483.8	446.1—521.6	5,984	87.3	4.0	81.0—94.7
Los Angeles County	54,900	1.4	53,400—56,400	646.7	628.8—664.6	48,646	88.6	1.4	86.2—91.1
Orange County	8,200	3.7	7,600—8,800	307.4	285.3—329.6	6,824	82.8	3.7	77.3—89.3
Riverside County	10,100	2.6	9,600—10,600	504.7	479.3—530.0	9,000	88.8	2.6	84.6—93.5
Sacramento County	5,100	4.3	4,700—5,600	402.2	368.0—436.3	4,303	83.8	4.4	77.3—91.6
San Bernardino County	5,600	4.2	5,200—6,100	320.1	293.5—346.6	4,422	78.7	4.3	72.7—85.8
San Diego County	15,100	2.6	14,300—15,900	538.0	510.5—565.5	13,032	86.3	2.6	82.1—90.9
San Francisco County	12,600	3.5	12,100—13,400	1,591.0	1,530.2—1,700.2	12,093	96.2	2.7	90.0—100.0
District of Columbia	14,900	2.7	14,100—15,700	2,473.5	2,340.8—2,606.3	13,917	93.2	2.7	88.5—98.5
Florida									
Broward County	21,700	2.1	20,800—22,600	1,312.8	1,257.6—1,367.9	19,334	89.2	2.1	85.6—93.1
Duval County	7,200	3.9	6,700—7,800	915.5	845.4—985.5	6,018	83.1	3.9	77.2—90.0
Hillsborough County	8,000	3.7	7,500—8,600	658.9	611.3—706.5	6,775	84.2	3.7	78.5—90.8
Miami-Dade County	29,800	2.0	28,600—31,000	1,289.8	1,238.2—1,341.5	25,960	87.1	2.0	83.8—90.7
Orange County	10,300	3.2	9,700—11,000	886.6	830.5—942.6	8,555	83.0	3.2	78.1—88.6
Palm Beach County	9,000	3.7	8,300—9,600	699.0	649.0—749.1	7,779	86.8	3.7	81.0—93.5
Pinellas County	5,200	4.4	4,800—5,700	606.9	554.9—658.9	4,524	86.5	4.4	79.7—94.7
Georgia									
Cobb County	3,900	4.7	3,500—4,200	613.9	557.8—669.9	3,162	81.7	4.7	74.8—89.9
DeKalb County	10,000	3.1	9,400—10,600	1,602.4	1,503.7—1,701.1	8,455	84.4	3.2	79.5—89.9
Fulton County	17,600	2.4	16,800—18,400	1,982.8	1,891.3—2,074.3	15,043	85.5	2.4	81.7—89.6
Gwinnett County	3,500	4.6	3,200—3,900	470.9	428.6—513.2	2,843	80.2	4.6	73.6—88.1
Illinois									

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2018								
Cook County	28,500	2.0	27,400—29,700	654.9	628.9—680.9	24,833	87.1	2.0	83.7—90.7
Indiana									
Marion County	5,400	4.2	5,000—5,900	693.7	636.1—751.2	4,605	84.7	4.3	78.2—92.3
Louisiana									
East Baton Rouge Parish	4,500	4.9	4,100—5,000	1,226.1	1,108.7—1,343.4	3,852	85.1	4.9	77.7—94.1
Orleans Parish	5,400	5.1	4,900—5,900	1,621.3	1,459.7—1,782.9	4,822	89.1	5.1	81.1—99.0
Maryland									
Baltimore City	10,900	3.6	10,200—11,700	2,139.9	1,987.4—2,292.3	10,034	91.8	3.7	85.6—98.8
Montgomery County	4,300	4.8	3,900—4,700	489.2	443.1—535.4	3,829	89.6	4.9	81.9—98.9
Prince George's County	9,000	3.3	8,400—9,600	1,184.9	1,109.0—1,260.8	7,839	86.9	3.3	81.7—92.9
Massachusetts									
Suffolk County	6,000	4.3	5,600—6,500	852.9	796.4—924.1	5,620	93.4	3.8	86.2—100.0
Michigan									
Wayne County	7,800	4.1	7,100—8,400	532.3	489.5—575.0	6,656	85.8	4.1	79.4—93.3
Nevada									
Clark County	10,400	3.0	9,800—11,000	560.4	527.6—593.1	8,448	81.3	3.0	76.8—86.3
New Jersey									
Essex County[d]	9,800	4.0	9,100—10,600	1,482.3	1,366.9—1,597.8	8,843	90.1	4.0	83.6—97.7
Hudson County[d]	5,500	5.2	4,900—6,000	960.3	862.2—1,058.5	4,768	87.5	5.3	79.4—97.4
New York									
Bronx County	28,400	1.8	27,400—29,400	2,427.4	2,342.8—2,512.1	26,690	93.9	1.8	90.7—97.3
Kings County	27,700	2.0	26,600—28,800	1,296.8	1,245.3—1,348.4	25,727	92.8	2.0	89.2—96.6
New York County	28,100	2.1	26,900—29,300	1,930.0	1,848.9—2,011.1	26,527	94.4	2.1	90.6—98.6
Queens County	17,100	2.5	16,200—17,900	881.3	837.9—924.6	15,528	91.0	2.5	86.8—95.7
North Carolina									
Mecklenburg County	6,700	3.7	6,200—7,200	740.0	685.5—794.5	5,800	86.3	3.8	80.4—93.1
Ohio									
Cuyahoga County	5,400	4.2	4,900—5,800	509.7	467.4—552.0	4,670	86.6	4.3	80.0—94.5
Franklin County	5,600	4.1	5,100—6,000	517.1	475.0—559.1	4,758	85.1	4.2	78.7—92.6
Hamilton County	3,600	5.3	3,200—3,900	523.6	468.7—578.5	2,889	81.2	5.4	73.5—90.7
Pennsylvania									
Philadelphia County	18,200	2.4	17,300—19,000	1,367.7	1,303.0—1,432.5	16,688	91.8	2.4	87.7—96.4
Puerto Rico									
San Juan Municipio[d,e]	3,600	7.2	3,200—4,100	1,274.0	1,146.2—1,454.2	3,248	90.0	6.0	78.8—100.0
Tennessee									
Shelby County	7,300	3.8	6,800—7,800	953.2	881.9—1,024.5	6,291	86.2	3.8	80.2—93.1
Texas									
Bexar County	7,500	3.7	7,000—8,100	465.5	431.7—499.2	6,253	83.2	3.7	77.6—89.7
Dallas County	21,500	2.2	20,600—22,400	1,009.6	966.5—1,052.6	17,966	83.6	2.2	80.2—87.3
Harris County	30,400	1.9	29,200—31,500	806.2	776.3—836.2	25,422	83.7	1.9	80.7—86.9
Tarrant County	6,900	3.7	6,300—7,400	405.6	375.8—435.4	5,636	82.3	3.8	76.6—88.8
Travis County	5,900	4.2	5,400—6,300	559.1	513.2—604.9	4,883	83.3	4.2	77.0—90.7
Washington									
King County	7,800	3.8	7,200—8,400	410.1	379.4—440.7	6,805	87.5	3.8	81.4—94.5

	Persons living with diagnosed or undiagnosed HIV infection					Persons living with diagnosed HIV infection			
	No.	RSE (%)	95% CI	Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI
	2018								
Total	612,300	0.4	607,200—617,400	807.3	800.5—814.0	537,700	87.8	0.4	87.1—88.6

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Arizona												
Maricopa County	13,900	2.8	13,100	14,600	370.5	350.2	390.9	11,561	83.4	2.8	79.0	88.2
California												
Alameda County	6,900	4.1	6,300	7,400	484.6	445.9	523.3	6,038	87.6	4.1	81.1	95.2
Los Angeles County	55,500	1.4	54,000	57,100	655.4	637.0	673.8	49,420	89.0	1.4	86.5	91.5
Orange County	8,300	3.7	7,700	8,900	310.0	287.2	332.7	6,917	83.2	3.8	77.5	89.8
Riverside County	10,500	2.6	10,000	11,000	516.4	490.3	542.5	9,367	89.3	2.6	85.0	94.0
Sacramento County	5,300	4.4	4,800	5,700	409.8	374.5	445.1	4,412	83.5	4.4	76.9	91.3
San Bernardino County	5,900	4.3	5,400	6,400	333.8	305.9	361.7	4,692	79.4	4.3	73.3	86.7
San Diego County	15,300	2.7	14,500	16,100	542.9	514.6	571.1	13,176	86.3	2.7	82.1	91.1
San Francisco County	12,400	3.6	12,000	13,200	1,564.4	1,515.3	1,674.3	11,972	96.9	2.5	90.5	100.0
District of Columbia	14,800	2.8	14,000	15,700	2,446.9	2,313.0	2,580.9	13,882	93.5	2.8	88.7	99.0
Florida												
Broward County	22,000	2.2	21,000	22,900	1,324.3	1,268.0	1,380.6	19,650	89.4	2.2	85.7	93.4
Duval County	7,300	4.0	6,700	7,900	914.8	843.4	986.2	6,152	84.1	4.0	78.0	91.2
Hillsborough County	8,200	3.7	7,600	8,800	664.1	615.9	712.3	6,989	84.8	3.7	79.1	91.4
Miami-Dade County	29,900	2.1	28,700	31,200	1,293.3	1,240.3	1,346.3	26,186	87.4	2.1	84.0	91.2
Orange County	10,500	3.3	9,800	11,200	895.4	837.6	953.3	8,759	83.3	3.3	78.2	89.0
Palm Beach County	9,100	3.7	8,400	9,700	699.2	648.5	749.9	7,864	86.8	3.7	80.9	93.6
Pinellas County	5,400	4.4	4,900	5,900	624.4	571.0	677.7	4,731	87.6	4.4	80.7	95.7
Georgia												
Cobb County	4,000	4.8	3,700	4,400	635.8	576.4	695.3	3,324	82.1	4.8	75.1	90.6
DeKalb County	10,400	3.2	9,700	11,000	1,644.5	1,542.7	1,746.3	8,823	85.1	3.2	80.1	90.7
Fulton County	18,100	2.4	17,300	19,000	2,007.1	1,913.8	2,100.5	15,572	85.9	2.4	82.1	90.1
Gwinnett County	3,700	4.7	3,400	4,100	488.4	443.0	533.8	3,039	81.5	4.8	74.6	89.9
Illinois												
Cook County	29,100	2.0	27,900	30,200	669.5	642.7	696.3	25,486	87.6	2.0	84.3	91.3
Indiana												
Marion County	5,500	4.4	5,000	5,900	693.1	633.4	752.8	4,605	84.2	4.4	77.6	92.2
Louisiana												
East Baton Rouge Parish	4,600	5.0	4,100	5,000	1,241.4	1,119.6	1,363.2	3,886	85.0	5.1	77.4	94.3
Orleans Parish	5,500	5.1	4,900	6,000	1,638.1	1,473.6	1,802.5	4,913	89.8	5.2	81.6	99.8
Maryland												
Baltimore City	10,900	3.7	10,100	11,700	2,151.4	1,995.6	2,307.3	10,025	92.3	3.7	86.0	99.5
Montgomery County	4,300	4.9	3,900	4,700	487.7	440.9	534.8	3,868	90.4	5.0	82.4	100.0
Prince George's County	9,100	3.4	8,500	9,700	1,189.2	1,110.9	1,267.4	7,929	87.5	3.4	82.1	93.6
Massachusetts												
Suffolk County	6,000	4.3	5,600	6,500	847.3	793.1	919.0	5,624	93.6	3.7	86.3	100.0
Michigan												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2019											
Wayne County	8,000	4.1	7,300	8,600	547.8	503.8	591.9	6,868	86.3	4.1	79.9	93.8
Nevada												
Clark County	10,900	3.0	10,200	11,500	572.5	538.5	606.6	8,893	81.8	3.0	77.2	86.9
New Jersey												
Essex County[d]	9,800	4.0	9,000	10,600	1,475.2	1,357.9	1,592.4	8,853	90.4	4.1	83.8	98.2
Hudson County[d]	5,500	5.3	4,900	6,000	957.5	857.9	1,057.1	4,808	88.2	5.4	79.9	98.4
New York												
Bronx County	28,700	1.8	27,700	29,700	2,472.7	2,386.0	2,559.4	27,121	94.4	1.8	91.2	97.8
Kings County	27,700	2.1	26,600	28,800	1,301.3	1,248.7	1,353.9	25,730	93.0	2.1	89.4	96.9
New York County	27,800	2.2	26,600	29,000	1,910.8	1,829.0	1,992.5	26,340	94.6	2.2	90.7	98.8
Queens County	17,200	2.5	16,300	18,000	893.5	849.2	937.9	15,728	91.7	2.5	87.3	96.5
North Carolina												
Mecklenburg County	7,000	3.8	6,500	7,500	752.7	697.1	808.2	6,023	86.4	3.8	80.5	93.3
Ohio												
Cuyahoga County	5,400	4.3	5,000	5,900	516.6	473.0	560.2	4,752	87.3	4.3	80.5	95.3
Franklin County	5,800	4.1	5,300	6,300	533.1	489.7	576.4	4,991	85.8	4.2	79.3	93.4
Hamilton County	3,600	5.4	3,300	4,000	534.2	477.5	590.9	3,024	83.0	5.5	75.0	92.8
Pennsylvania												
Philadelphia County	18,300	2.4	17,400	19,200	1,376.5	1,310.5	1,442.4	16,848	92.1	2.4	87.9	96.7
Puerto Rico												
San Juan Municipio[d,e]	3,700	7.2	3,300	4,200	1,294.5	1,170.8	1,477.0	3,309	90.4	5.8	79.3	100.0
Tennessee												
Shelby County	7,400	3.9	6,800	7,900	959.8	886.4	1,033.1	6,332	86.0	3.9	79.9	93.2
Texas												
Bexar County	7,800	3.7	7,200	8,400	476.7	441.6	511.7	6,500	83.3	3.8	77.6	89.9
Dallas County	21,900	2.2	21,000	22,900	1,024.7	980.5	1,069.0	18,499	84.4	2.2	80.9	88.2
Harris County	31,200	1.9	30,100	32,400	821.5	790.7	852.4	26,367	84.4	1.9	81.3	87.7
Tarrant County	7,200	3.8	6,600	7,700	418.5	387.3	449.8	5,882	82.1	3.8	76.4	88.7
Travis County	6,000	4.2	5,500	6,500	558.0	511.8	604.1	5,024	83.7	4.3	77.3	91.2
Washington												
King County	7,900	3.9	7,300	8,500	412.5	381.2	443.8	6,969	88.0	3.9	81.8	95.2
Total	**621,000**	**0.4**	**615,800**	**626,300**	**814.3**	**807.4**	**821.2**	**547,723**	**88.2**	**0.4**	**87.5**	**88.9**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Arizona												
Maricopa County	14,200	2.9	13,400	15,000	382.9	361.0	404.7	11,926	84.0	2.9	79.5	89.1
California												
Alameda County	6,800	4.3	6,200	7,400	473.5	433.9	513.0	5,965	87.9	4.3	81.1	95.9
Los Angeles County	55,700	1.5	54,100	57,300	657.6	638.6	676.6	49,814	89.4	1.5	86.9	92.0
Orange County	8,400	3.8	7,800	9,000	311.9	288.3	335.5	7,034	83.6	3.9	77.8	90.5
Riverside County	10,800	2.6	10,300	11,400	542.0	514.0	569.9	9,709	89.5	2.6	85.1	94.4
Sacramento County	5,400	4.5	4,900	5,900	409.7	373.6	445.8	4,534	83.8	4.5	77.0	91.9

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
San Bernardino County	6,000	4.5	5,500	6,600	339.1	309.4	368.8	4,803	79.7	4.5	73.3	87.4
San Diego County	15,400	2.7	14,600	16,200	552.3	522.8	581.7	13,299	86.4	2.7	82.1	91.3
San Francisco County	12,100	3.7	11,800	13,000	1,551.0	1,507.4	1,663.2	11,781	97.2	2.5	90.6	100.0
District of Columbia	14,500	2.9	13,700	15,400	2,462.0	2,322.2	2,601.7	13,655	94.0	2.9	88.9	99.6
Florida												
Broward County	22,100	2.2	21,100	23,100	1,340.4	1,281.8	1,399.0	19,811	89.6	2.2	85.8	93.7
Duval County	7,400	4.1	6,800	8,000	893.9	821.8	966.1	6,266	84.4	4.1	78.1	91.8
Hillsborough County	8,400	3.8	7,800	9,000	683.8	632.9	734.6	7,176	85.2	3.8	79.3	92.1
Miami-Dade County	30,000	2.2	28,700	31,200	1,303.0	1,247.8	1,358.1	26,269	87.6	2.2	84.1	91.5
Orange County	10,600	3.4	9,900	11,400	882.4	823.0	941.9	8,892	83.5	3.5	78.2	89.5
Palm Beach County	9,200	3.8	8,500	9,900	710.9	658.0	763.8	7,925	86.3	3.8	80.3	93.3
Pinellas County	5,500	4.5	5,000	6,000	643.6	586.9	700.2	4,836	88.3	4.5	81.1	96.8
Georgia												
Cobb County	4,200	5.0	3,800	4,600	656.2	592.4	719.9	3,481	82.5	5.0	75.2	91.4
DeKalb County	10,500	3.3	9,800	11,200	1,649.4	1,543.2	1,755.5	8,964	85.5	3.3	80.3	91.4
Fulton County	18,500	2.5	17,600	19,400	2,034.9	1,936.9	2,132.8	15,937	86.1	2.5	82.2	90.5
Gwinnett County	3,800	5.0	3,400	4,200	487.9	440.2	535.5	3,177	83.2	5.0	75.8	92.2
Illinois												
Cook County	29,200	2.1	28,000	30,400	656.2	629.1	683.4	25,639	87.8	2.1	84.3	91.6
Indiana												
Marion County	5,600	4.5	5,100	6,100	701.8	639.4	764.1	4,726	84.2	4.6	77.3	92.4
Louisiana												
East Baton Rouge Parish	4,700	5.0	4,200	5,200	1,237.6	1,115.3	1,359.8	4,051	86.0	5.1	78.3	95.4
Orleans Parish	5,400	5.3	4,900	6,000	1,656.8	1,490.0	1,828.0	4,886	89.9	5.2	81.5	100.0
Maryland												
Baltimore City	10,500	3.9	9,700	11,300	2,128.1	1,966.7	2,289.6	9,725	92.2	3.9	85.7	99.8
Montgomery County	4,200	5.1	3,800	4,600	475.3	431.3	523.2	3,825	90.7	4.9	82.4	100.0
Prince George's County	9,000	3.5	8,400	9,600	1,117.3	1,041.5	1,193.1	7,973	88.3	3.5	82.7	94.7
Massachusetts												
Suffolk County	6,000	4.4	5,600	6,500	859.3	804.2	932.9	5,632	93.6	3.8	86.2	100.0
Michigan												
Wayne County	8,000	4.2	7,400	8,700	541.3	496.6	585.9	6,940	86.3	4.2	79.7	94.1
Nevada												
Clark County	11,300	3.2	10,600	12,000	596.7	559.7	633.7	9,252	81.5	3.2	76.8	86.9
New Jersey												
Essex County[d]	9,700	4.2	8,900	10,500	1,356.5	1,244.6	1,468.5	8,768	90.6	4.2	83.7	98.7
Hudson County[d]	5,400	5.5	4,800	6,000	887.3	791.5	983.1	4,799	88.5	5.6	79.9	99.3
New York												
Bronx County	28,400	1.8	27,400	29,400	2,364.6	2,279.1	2,450.2	26,797	94.3	1.8	91.0	97.9
Kings County	27,400	2.1	26,200	28,500	1,208.9	1,158.6	1,259.1	25,541	93.3	2.1	89.6	97.4
New York County	27,400	2.2	26,200	28,600	1,820.5	1,740.5	1,900.5	25,945	94.7	2.2	90.7	99.0
Queens County	17,100	2.6	16,200	17,900	836.2	793.5	878.8	15,716	92.1	2.6	87.6	97.0
North Carolina												
Mecklenburg County	7,100	3.9	6,500	7,600	758.2	700.5	815.9	6,127	86.7	3.9	80.5	93.8

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2020 (COVID-19 Pandemic)[c]											
Ohio												
Cuyahoga County	5,500	4.4	5,000	6,000	513.7	469.4	558.1	4,850	87.7	4.4	80.8	96.0
Franklin County	5,900	4.2	5,400	6,400	541.2	496.3	586.0	5,132	86.5	4.3	79.9	94.3
Hamilton County	3,700	5.6	3,300	4,100	534.3	476.0	592.5	3,083	83.4	5.6	75.2	93.6
Pennsylvania												
Philadelphia County	18,000	2.5	17,100	18,900	1,340.0	1,273.6	1,406.5	16,651	92.4	2.5	88.0	97.2
Puerto Rico												
San Juan Municipio[d,e]	3,700	7.2	3,400	4,200	1,222.1	1,115.4	1,394.3	3,392	91.3	5.6	80.0	100.0
Tennessee												
Shelby County	7,200	4.1	6,600	7,800	947.6	871.2	1,024.1	6,246	86.7	4.1	80.3	94.4
Texas												
Bexar County	8,100	3.9	7,500	8,700	489.8	452.5	527.0	6,727	83.3	3.9	77.4	90.2
Dallas County	22,300	2.3	21,300	23,300	1,050.5	1,003.6	1,097.3	18,953	84.9	2.3	81.3	88.8
Harris County	31,800	2.0	30,500	33,000	829.1	797.0	861.3	26,897	84.7	2.0	81.5	88.1
Tarrant County	7,400	3.9	6,900	8,000	431.2	397.8	464.5	6,144	82.6	4.0	76.6	89.5
Travis County	6,100	4.3	5,600	6,600	555.0	507.8	602.1	5,138	84.3	4.4	77.7	92.1
Washington												
King County	8,000	4.0	7,300	8,600	410.4	378.3	442.4	7,024	88.1	4.0	81.7	95.6
Total	**624,000**	**0.4**	**618,600**	**629,500**	**809.9**	**802.9**	**817.0**	**551,833**	**88.4**	**0.4**	**87.7**	**89.2**

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Arizona												
Maricopa County	14,500	3.0	13,700	15,400	384.8	362.0	407.6	12,286	84.6	3.0	79.8	89.9
California												
Alameda County	6,800	4.4	6,200	7,300	478.7	437.1	520.3	5,950	88.0	4.5	81.0	96.4
Los Angeles County	55,800	1.5	54,200	57,500	666.3	646.5	686.2	50,182	89.9	1.5	87.3	92.7
Orange County	8,500	3.9	7,900	9,200	316.6	292.1	341.1	7,181	84.2	4.0	78.1	91.3
Riverside County	11,200	2.7	10,600	11,800	549.9	521.0	578.8	10,089	90.0	2.7	85.5	94.9
Sacramento County	5,400	4.6	4,900	5,900	409.7	372.3	447.1	4,610	84.8	4.7	77.7	93.3
San Bernardino County	6,200	4.6	5,600	6,800	346.2	314.8	377.7	5,009	80.6	4.7	73.9	88.7
San Diego County	15,600	2.8	14,700	16,400	558.8	528.1	589.4	13,442	86.3	2.8	81.8	91.3
San Francisco County	11,900	3.8	11,600	12,800	1,628.2	1,587.0	1,749.7	11,601	97.5	2.4	90.7	100.0
District of Columbia	14,300	3.0	13,500	15,200	2,505.5	2,361.2	2,652.0	13,504	94.2	3.0	89.0	100.0
Florida												
Broward County	22,400	2.3	21,400	23,400	1,359.5	1,298.6	1,420.3	20,137	90.0	2.3	86.1	94.2
Duval County	7,500	4.2	6,900	8,100	899.8	825.0	974.7	6,413	85.3	4.3	78.8	93.0
Hillsborough County	8,500	3.9	7,900	9,200	682.3	630.5	734.2	7,379	86.7	3.9	80.6	93.8
Miami-Dade County	30,500	2.2	29,200	31,800	1,337.3	1,279.6	1,394.9	26,875	88.1	2.2	84.4	92.0
Orange County	11,100	3.5	10,300	11,800	916.9	853.9	980.0	9,252	83.7	3.5	78.3	89.9
Palm Beach County	9,300	3.9	8,500	10,000	712.1	657.7	766.6	8,034	86.8	3.9	80.7	94.0
Pinellas County	5,500	4.6	5,000	6,000	646.7	588.5	704.9	4,895	88.9	4.6	81.5	97.7
Georgia												

	Persons living with diagnosed or undiagnosed HIV infection							Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI		No.[b]	%	RSE (%)	95% CI	
	2021[c]											
Cobb County	4,300	5.1	3,900	4,800	668.6	601.4	735.8	3,623	83.8	5.2	76.1	93.1
DeKalb County	10,600	3.5	9,800	11,300	1,667.5	1,554.6	1,780.4	9,064	85.8	3.5	80.4	92.0
Fulton County	18,900	2.5	17,900	19,800	2,075.5	1,971.8	2,179.2	16,290	86.3	2.6	82.2	90.9
Gwinnett County	3,900	5.2	3,500	4,300	494.9	444.1	545.8	3,315	84.6	5.3	76.7	94.3
Illinois												
Cook County	29,000	2.2	27,800	30,300	660.8	632.2	689.3	25,493	87.9	2.2	84.3	91.9
Indiana												
Marion County	5,800	4.6	5,300	6,300	729.1	663.1	795.0	4,927	84.8	4.7	77.7	93.2
Louisiana												
East Baton Rouge Parish	4,700	5.2	4,200	5,200	1,242.0	1,115.6	1,368.4	4,086	86.7	5.2	78.7	96.5
Orleans Parish	5,400	5.5	4,800	5,900	1,655.7	1,490.8	1,833.9	4,822	90.0	5.3	81.3	100.0
Maryland												
Baltimore City	10,900	3.8	10,100	11,700	2,224.6	2,059.1	2,390.1	10,109	92.5	3.8	86.1	100.0
Montgomery County	4,300	5.2	3,900	4,700	480.7	439.1	529.9	3,889	91.3	4.8	82.9	100.0
Prince George's County	9,000	3.6	8,400	9,600	1,119.7	1,040.6	1,198.8	7,959	88.5	3.6	82.7	95.3
Massachusetts												
Suffolk County	6,000	4.5	5,600	6,500	878.6	822.6	955.8	5,594	93.6	3.8	86.1	100.0
Michigan												
Wayne County	8,300	4.2	7,600	8,900	559.4	512.9	606.0	7,180	87.0	4.3	80.3	94.9
Nevada												
Clark County	11,700	3.3	11,000	12,500	609.9	570.3	649.5	9,630	82.0	3.3	77.0	87.7
New Jersey												
Essex County[d]	9,700	4.3	8,800	10,500	1,361.4	1,246.0	1,476.9	8,723	90.2	4.4	83.2	98.6
Hudson County[d]	5,500	5.5	4,900	6,100	924.6	824.0	1,025.2	4,884	88.7	5.6	80.0	99.5
New York												
Bronx County	28,100	1.9	27,100	29,200	2,399.6	2,309.9	2,489.4	26,554	94.4	1.9	91.0	98.0
Kings County	27,300	2.2	26,100	28,400	1,241.1	1,188.4	1,293.7	25,538	93.6	2.2	89.8	97.7
New York County	27,200	2.3	26,000	28,400	1,935.4	1,848.8	2,022.1	25,805	94.8	2.3	90.8	99.3
Queens County	17,200	2.6	16,300	18,100	863.3	818.6	908.0	15,909	92.5	2.6	88.0	97.6
North Carolina												
Mecklenburg County	7,100	4.0	6,600	7,700	756.9	697.5	816.3	6,227	87.6	4.0	81.2	95.0
Ohio												
Cuyahoga County	5,600	4.6	5,100	6,100	524.1	477.2	570.9	4,923	88.0	4.6	80.8	96.6
Franklin County	6,000	4.4	5,500	6,500	545.6	498.8	592.4	5,214	87.1	4.4	80.2	95.3
Hamilton County	3,700	5.7	3,300	4,100	540.4	479.5	601.3	3,135	84.1	5.8	75.5	94.7
Pennsylvania												
Philadelphia County	17,900	2.6	17,000	18,800	1,345.8	1,277.1	1,414.6	16,546	92.6	2.6	88.1	97.6
Puerto Rico												
San Juan Municipio[d,e]	3,900	6.9	3,600	4,500	1,299.0	1,198.8	1,474.7	3,622	92.3	5.2	81.3	100.0
Tennessee												
Shelby County	7,400	4.2	6,800	8,000	973.0	893.7	1,052.2	6,482	87.8	4.2	81.2	95.6
Texas												
Bexar County	8,200	4.0	7,600	8,900	492.8	453.7	531.9	6,875	83.7	4.1	77.5	90.9
Dallas County	22,900	2.3	21,800	23,900	1,080.7	1,031.0	1,130.4	19,505	85.3	2.4	81.6	89.4

	Persons living with diagnosed or undiagnosed HIV infection						Persons living with diagnosed HIV infection				
	No.	RSE (%)	95% CI		Rate[a]	95% CI	No.[b]	%	RSE (%)	95% CI	
	2021[c]										
Harris County	32,400	2.0	31,100	33,700	842.3	808.6	876.0	27,585	85.2	2.0	81.9	88.7
Tarrant County	7,700	4.1	7,100	8,300	440.1	404.7	475.5	6,346	82.7	4.1	76.5	89.9
Travis County	6,200	4.5	5,600	6,700	554.1	505.1	603.2	5,229	84.9	4.6	78.0	93.1
Washington												
King County	8,100	4.1	7,400	8,700	417.1	383.4	450.8	7,127	88.4	4.1	81.8	96.2
Total	**629,700**	**0.5**	**624,100**	**635,400**	**821.2**	**813.9**	**828.6**	**559,049**	**88.8**	**0.5**	**88.0**	**89.6**

Abbreviations: RSE, relative standard error; CI, confidence interval; CD4, CD4+ T-lymphocyte count (cells/µL) or percentage [footnotes only]; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Estimates for the year 2021 data are preliminary and based on deaths reported to CDC through December 2022.
Estimates derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis.
Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

[a]Rates are per 100,000 population.
[b]Reported to the National HIV Surveillance System.
[c]Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of diagnoses reported during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. See Technical Notes for more information.
[d]Estimates should be interpreted with caution because the jurisdiction does not have laws requiring complete reporting of laboratory data or has incomplete reporting. 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 with incomplete reporting: New Jersey, Pennsylvania (excluding Philadelphia County), and Puerto Rico.
[e]Estimates should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2021.

Last Reviewed: May 31, 2023

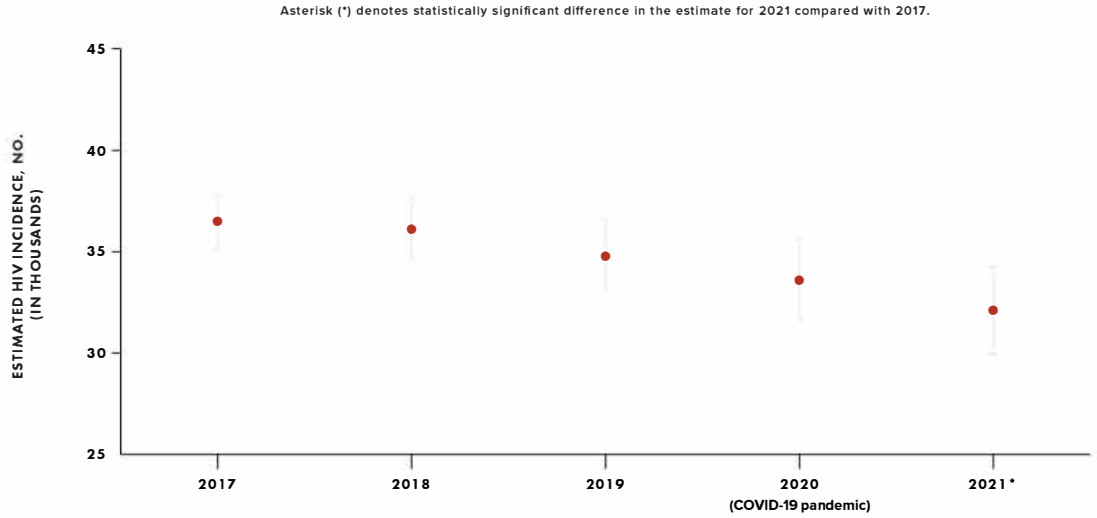
Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Figures

All Figures

Figure 1. Estimated HIV incidence among persons aged ≥13 years, 2017–2021—United States

FIGURE 1
Estimated HIV incidence among persons aged ≥13 years, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Bars indicate the range of the lower and upper bounds of the 95% confidence intervals for the point estimate. The asterisk (*) indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$).

Figure 2. Estimated HIV incidence among persons aged ≥13 years, by assigned sex at birth, 2017–2021—United States

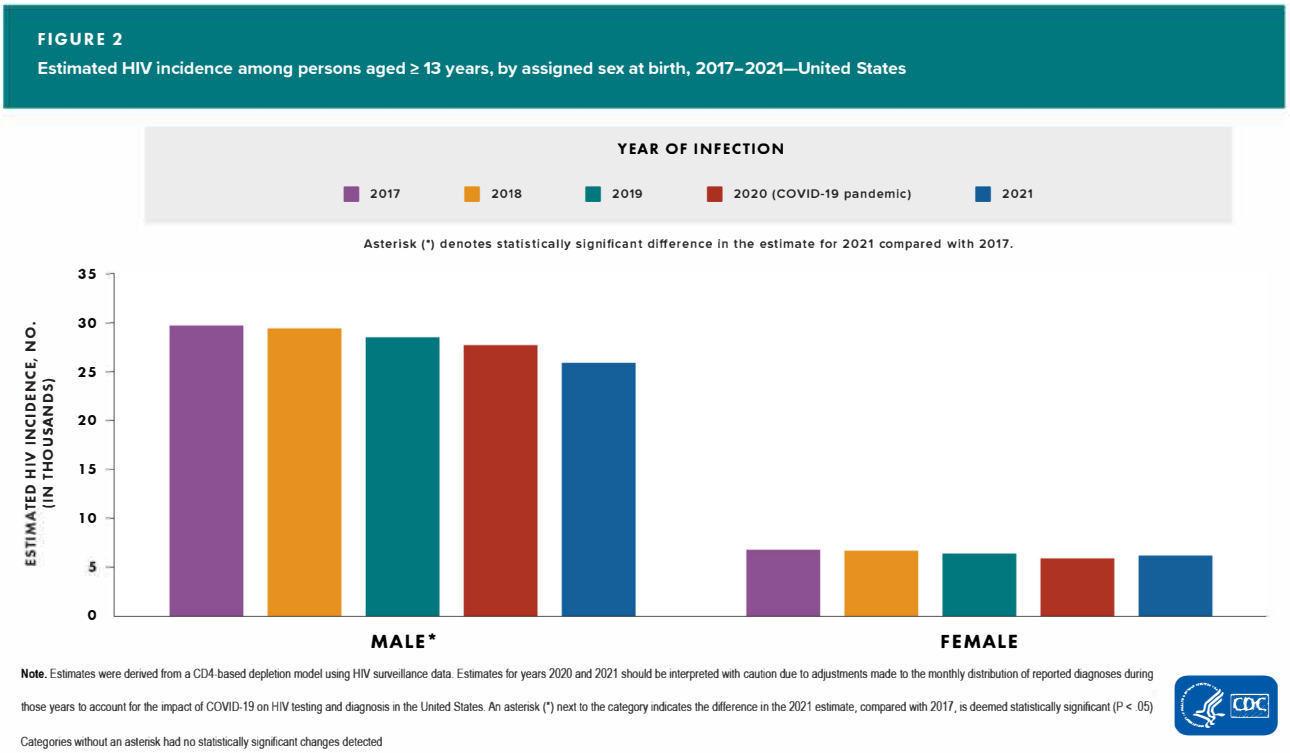


Figure 3. Estimated HIV incidence among persons aged ≥13 years, by age at infection, 2017–2021—United States

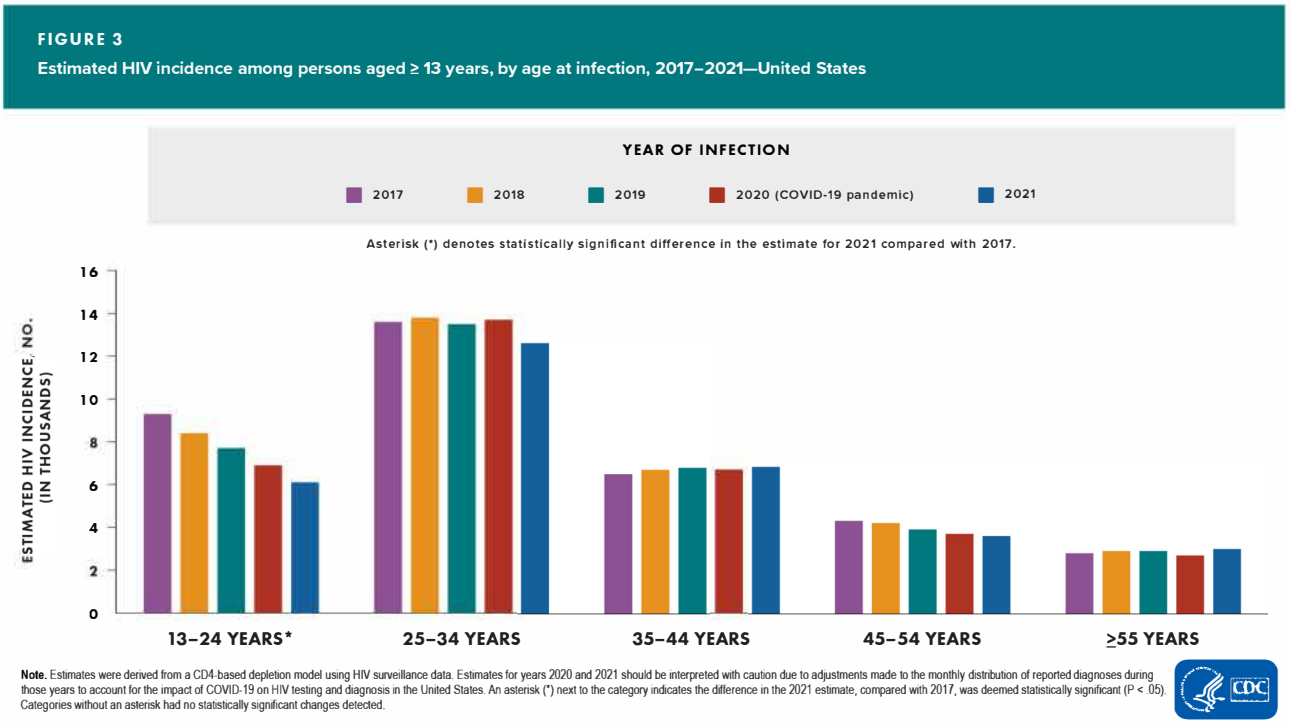


Figure 4. Estimated HIV incidence among persons aged ≥13 years, by race/ethnicity, 2017–2021—United States

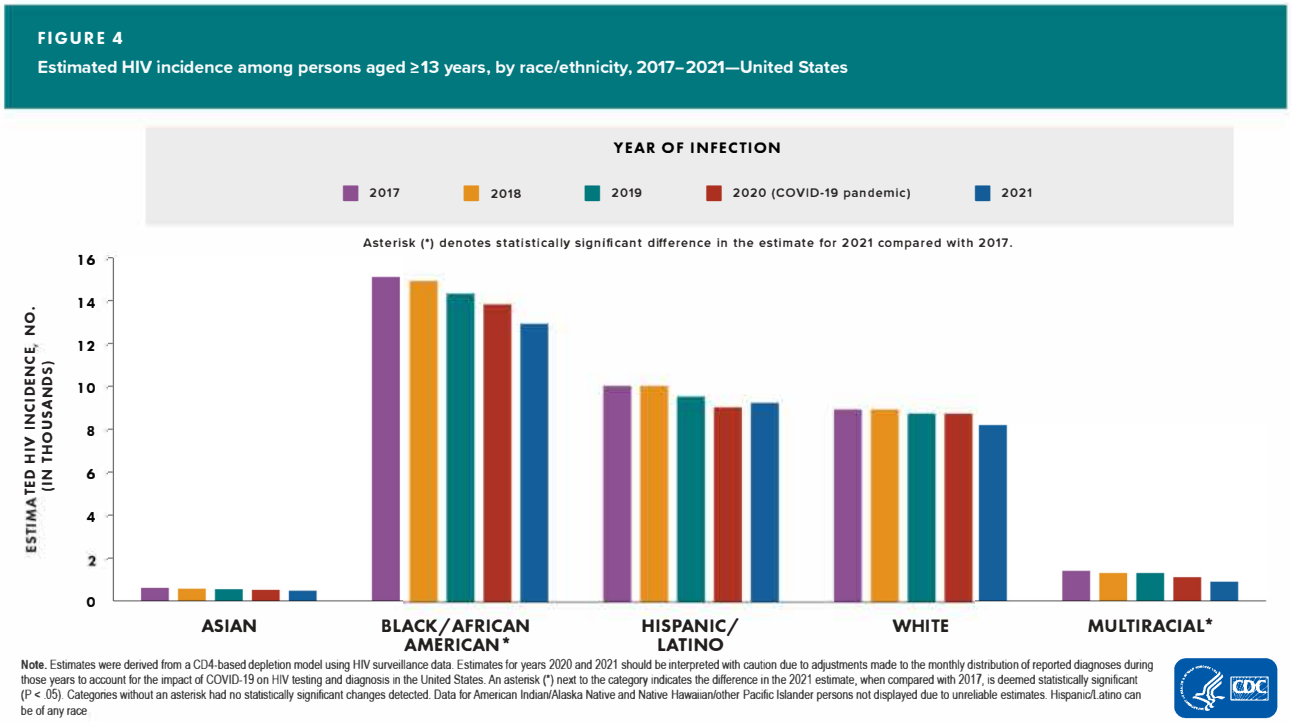
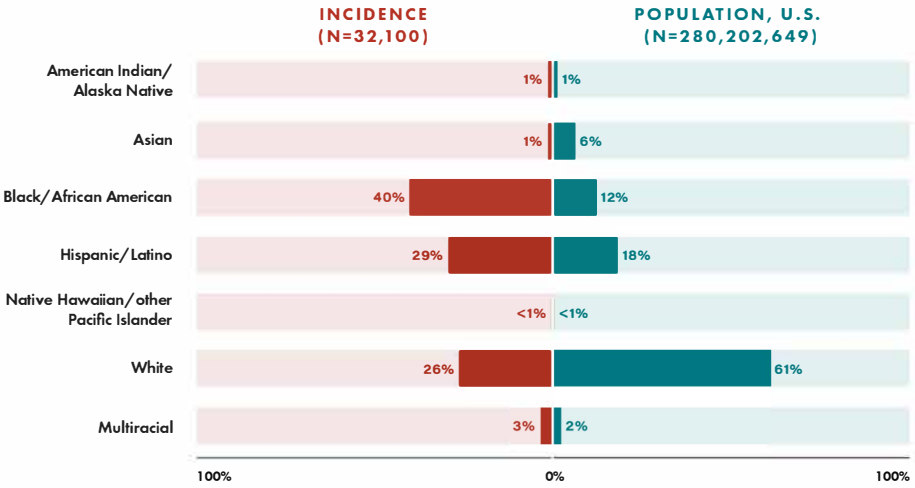


Figure 5. Estimated HIV incidence and population among persons aged ≥13 years, by race/ethnicity, 2021—United States

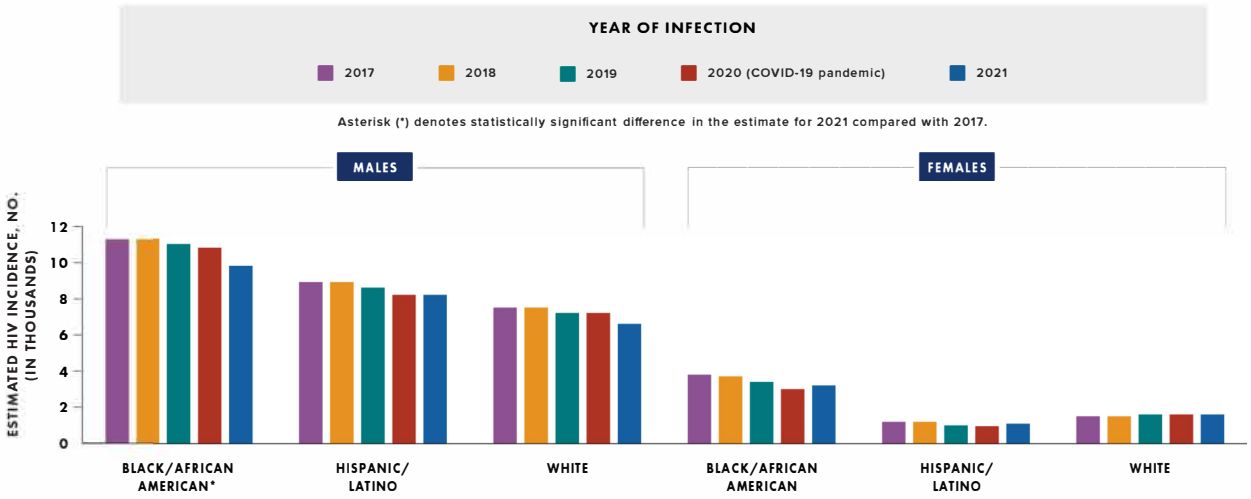
FIGURE 5
Estimated HIV incidence and population among persons aged ≥ 13 years, by race/ethnicity, 2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino can be of any race.

Figure 6. Estimated HIV incidence among persons aged ≥13 years, by assigned sex at birth and race/ethnicity, 2017–2021—United States

FIGURE 6
Estimated HIV incidence among persons aged ≥ 13 years, by assigned sex at birth and race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race.

Figure 7. Estimated HIV incidence among persons aged ≥13 years, by transmission category, 2017–2021—United States

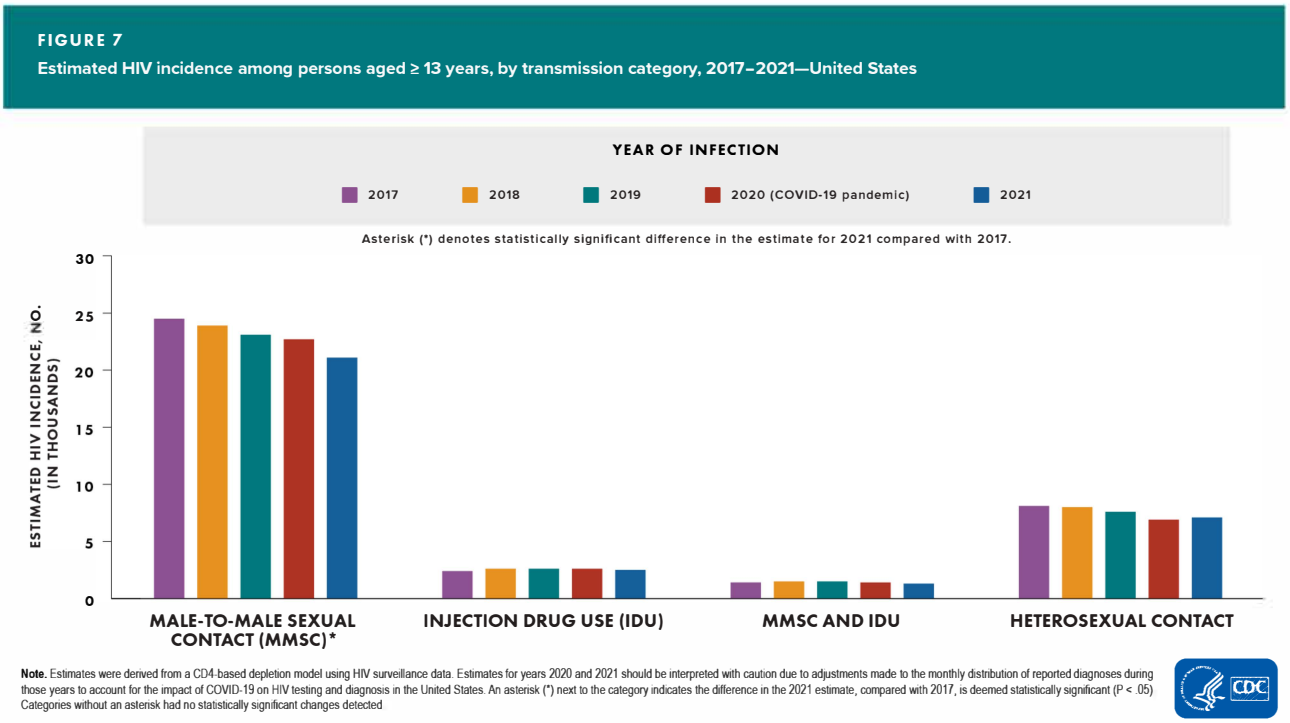


Figure 8. Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

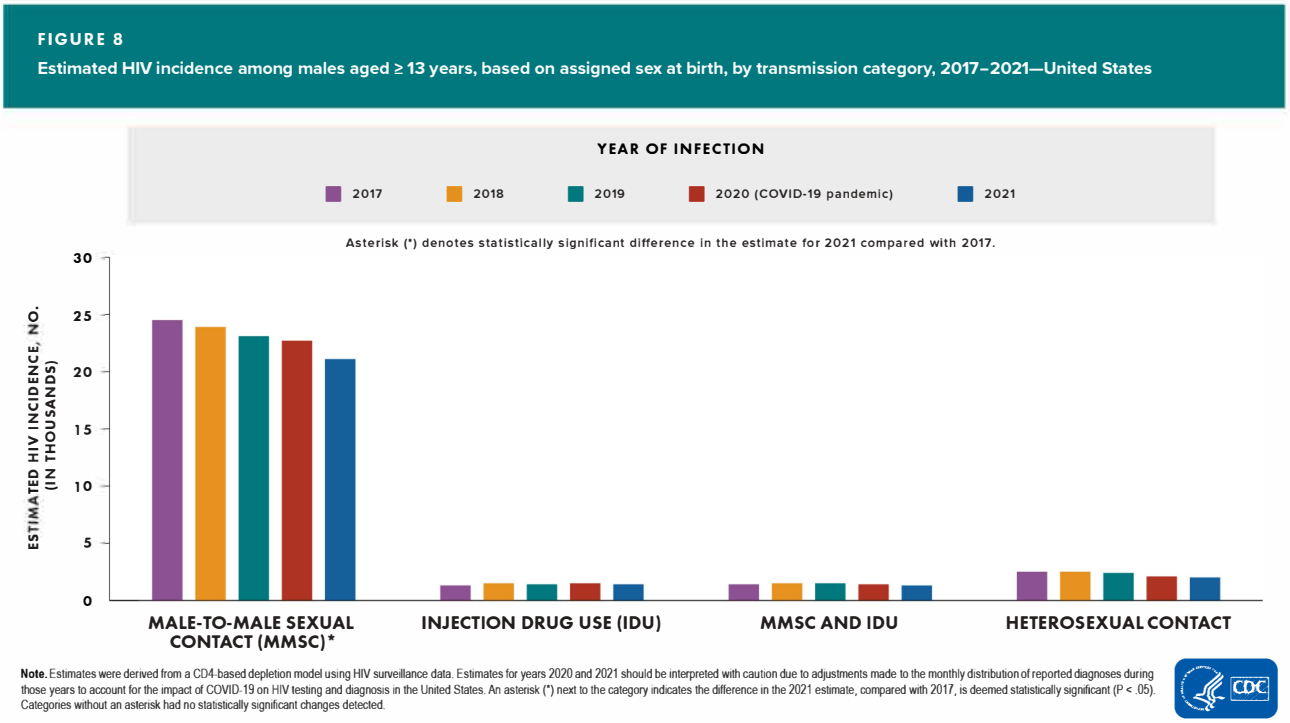


Figure 9. Estimated HIV incidence among females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

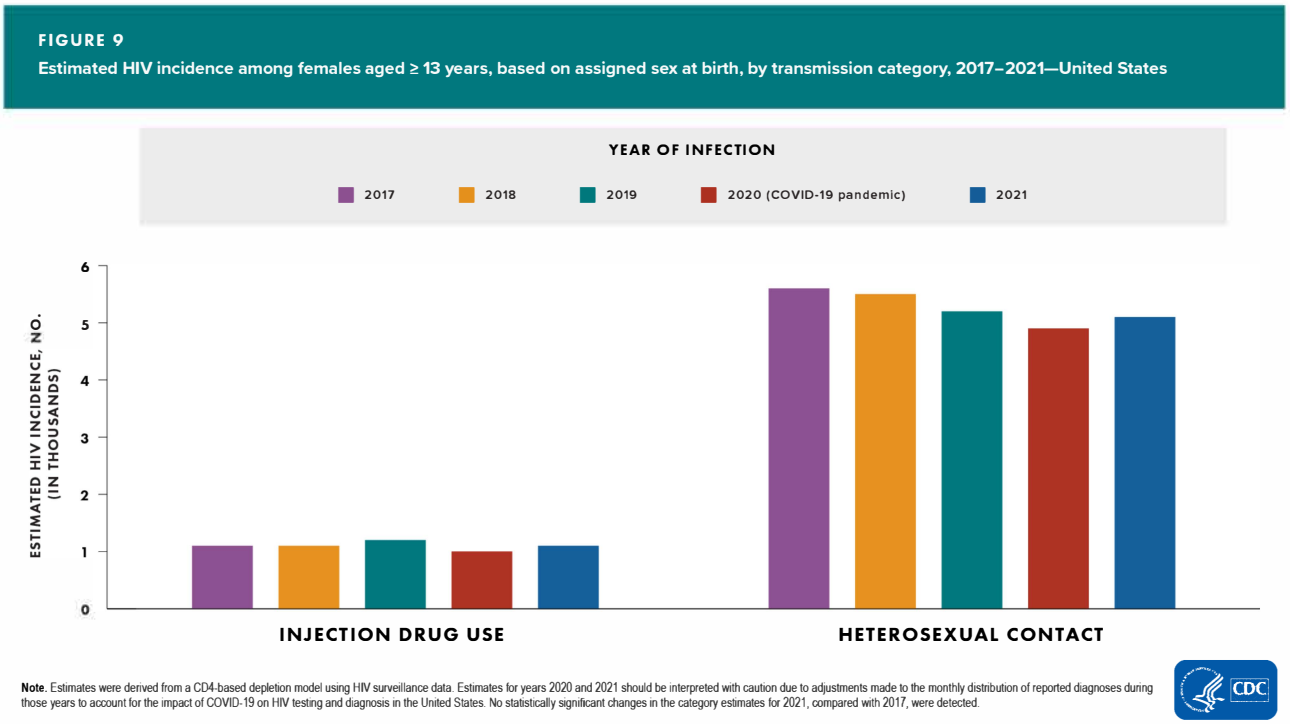
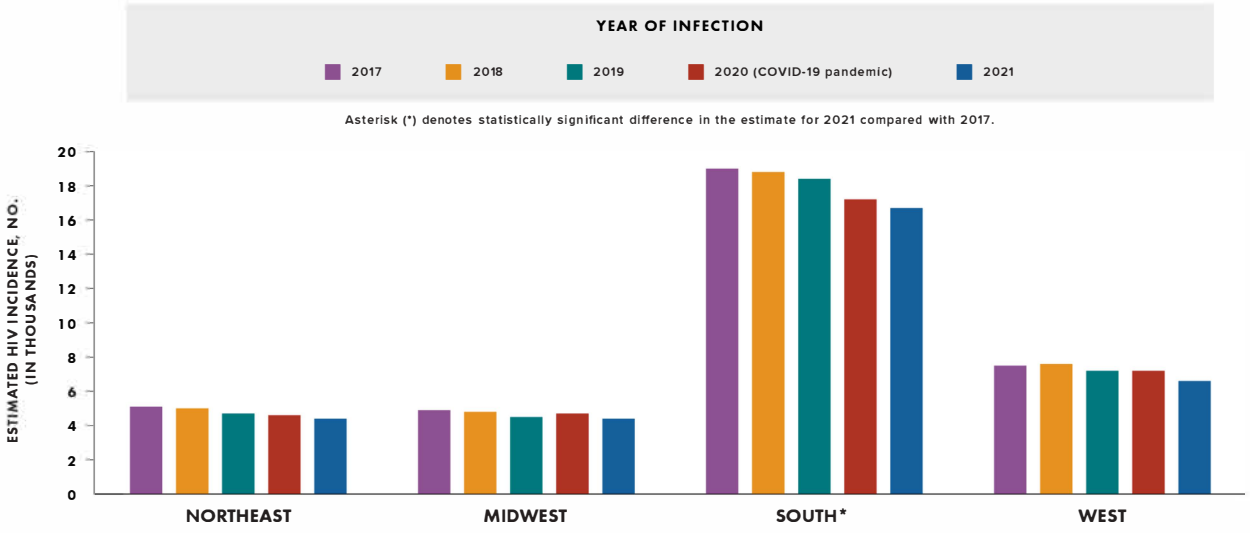


Figure 10. Estimated HIV infections among persons aged ≥13 years, by region, 2017–2021—United States

FIGURE 10
Estimated HIV incidence among persons aged ≥ 13 years, by region, 2017–2021—United States



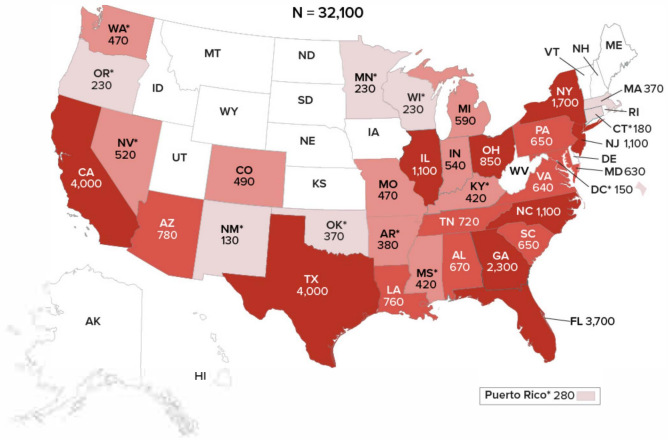
Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected

View Larger

Download and Share This Infographic

Figure 11. Estimated HIV incidence among persons aged ≥13 years, by area of residence, 2021—United States and Puerto Rico

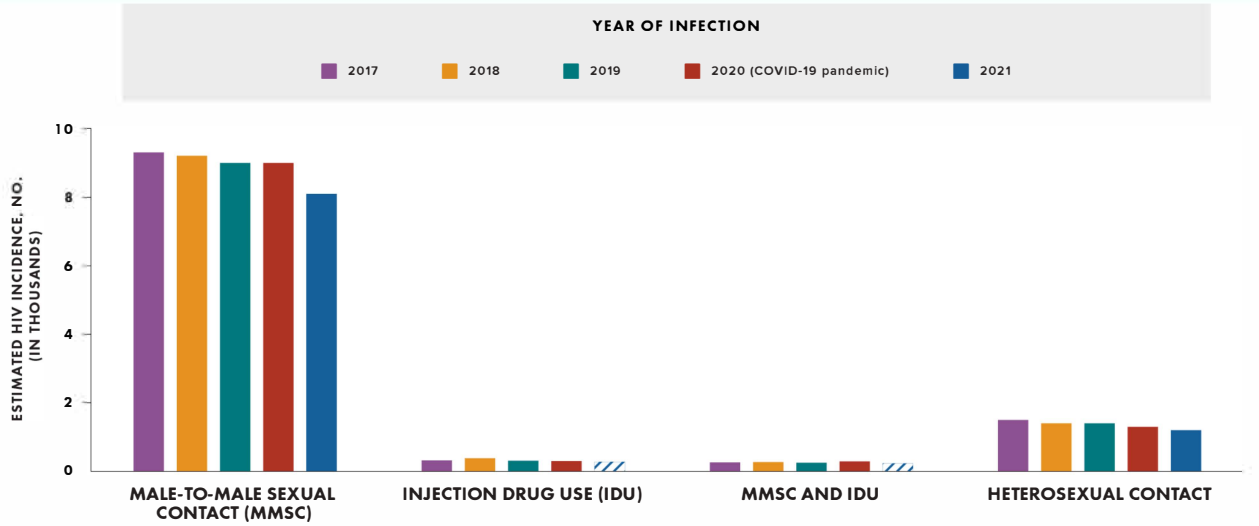
FIGURE 11
Estimated HIV incidence among persons aged ≥ 13 years, by area of residence, 2021—United States and Puerto Rico



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates should be interpreted with caution for jurisdictions that do not have laws requiring complete reporting of laboratory data or has incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey, Pennsylvania, and Puerto Rico. An asterisk (*) represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution.

Figure 12. Estimated HIV incidence among Black/African American males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

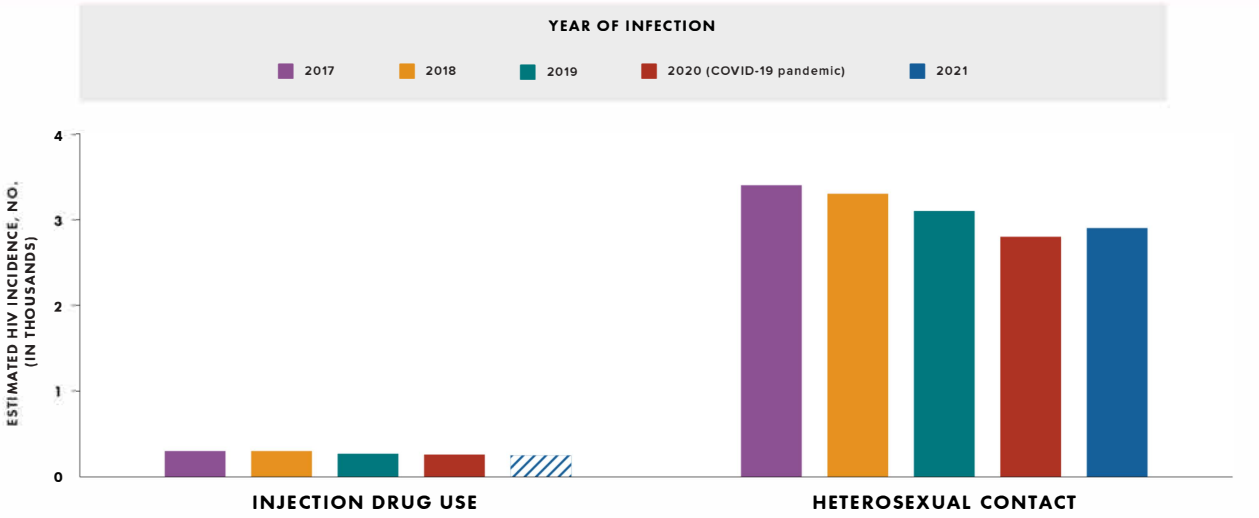
FIGURE 12
Estimated HIV incidence among Black/African American males aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Figure 13. Estimated HIV incidence among Black/African American females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

FIGURE 13
Estimated HIV incidence among Black/African American females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Figure 14. Estimated HIV incidence among Hispanic/Latino males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

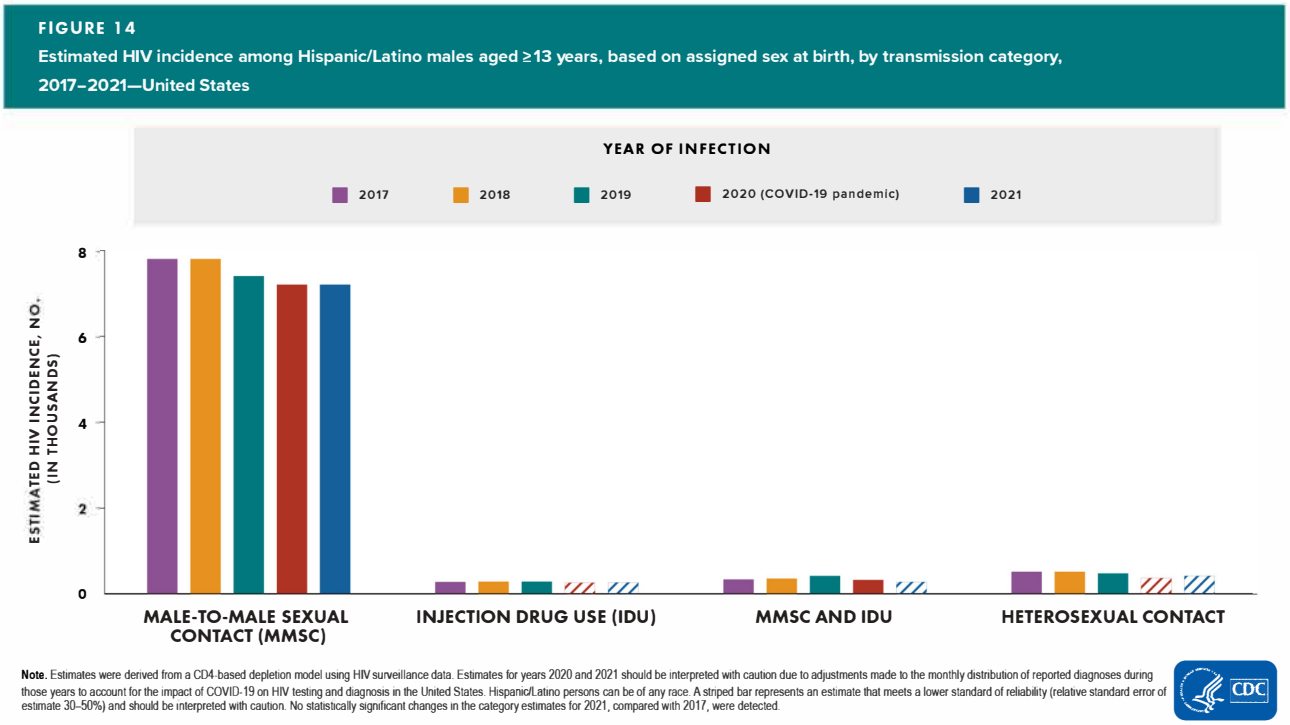
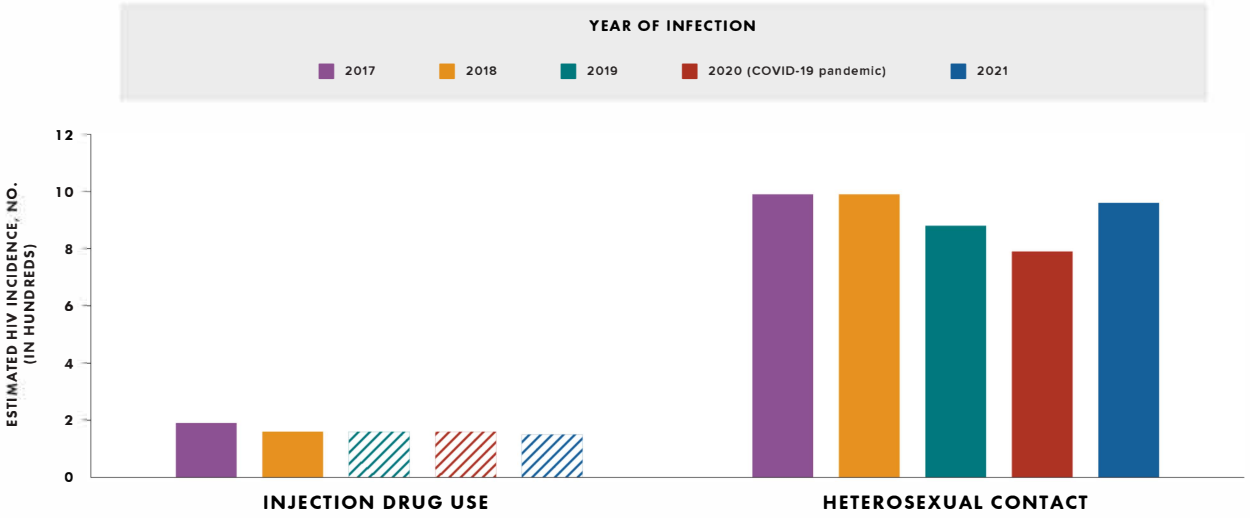


Figure 15. Estimated HIV incidence among Hispanic/Latino females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

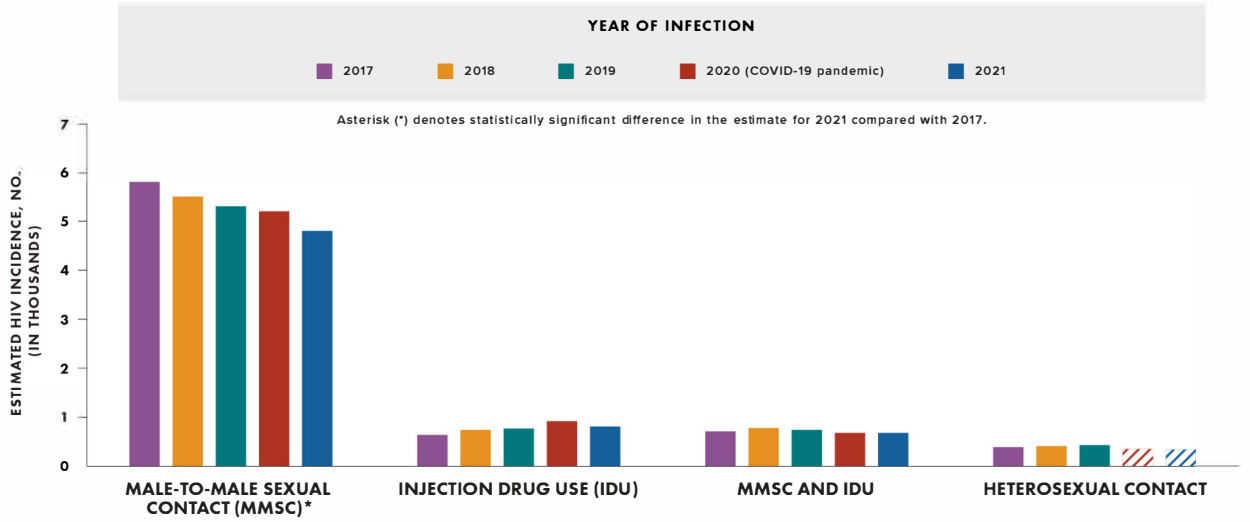
FIGURE 15
Estimated HIV incidence among Hispanic/Latino females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino persons can be of any race. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Figure 16. Estimated HIV incidence among White males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

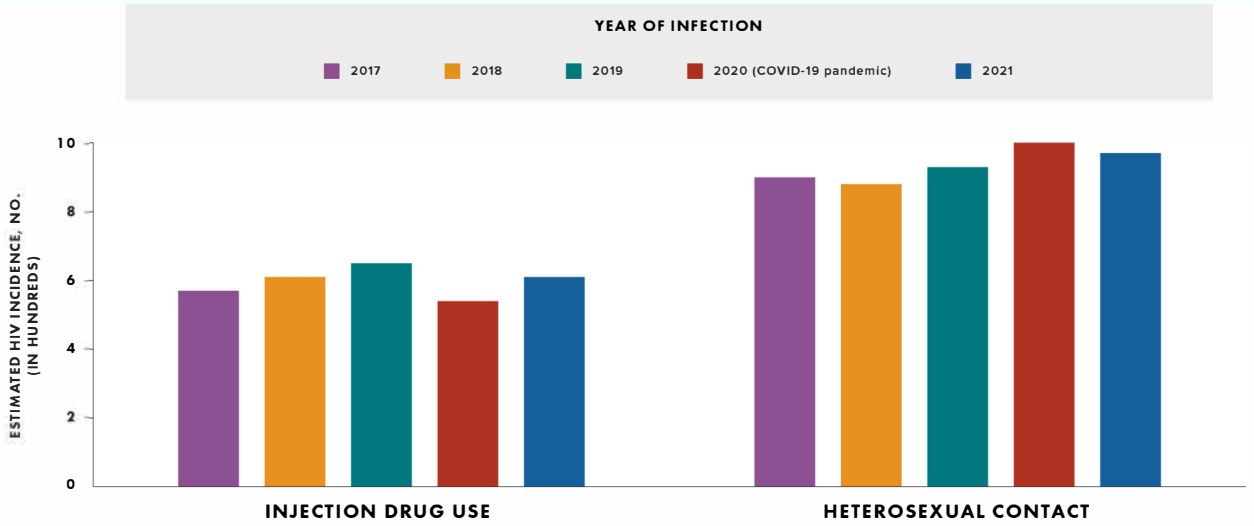
FIGURE 16
Estimated HIV incidence among White males aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates that the difference in the estimate for 2021 from the 2017 estimate was deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution.

Figure 17. Estimated HIV incidence among White females aged ≥13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States

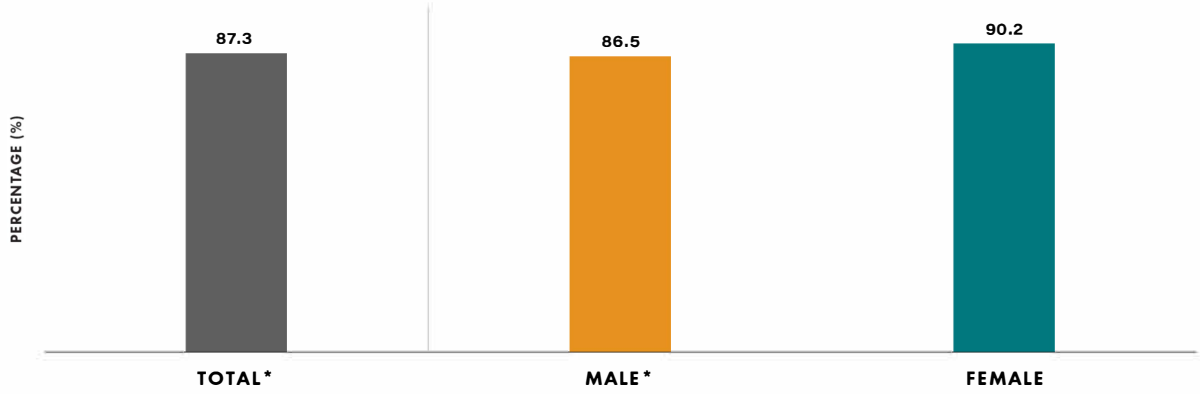
FIGURE 17
Estimated HIV incidence among White females aged ≥ 13 years, based on assigned sex at birth, by transmission category, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected.

Figure 18. Diagnosed infection among persons aged ≥13 years living with HIV infection, by assigned sex at birth, 2021—United States

FIGURE 18
Diagnosed infection among persons aged ≥13 years living with HIV infection, by assigned sex at birth, 2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

Figure 19. Diagnosed infection among persons aged ≥13 years living with HIV infection, by age, 2021—United States

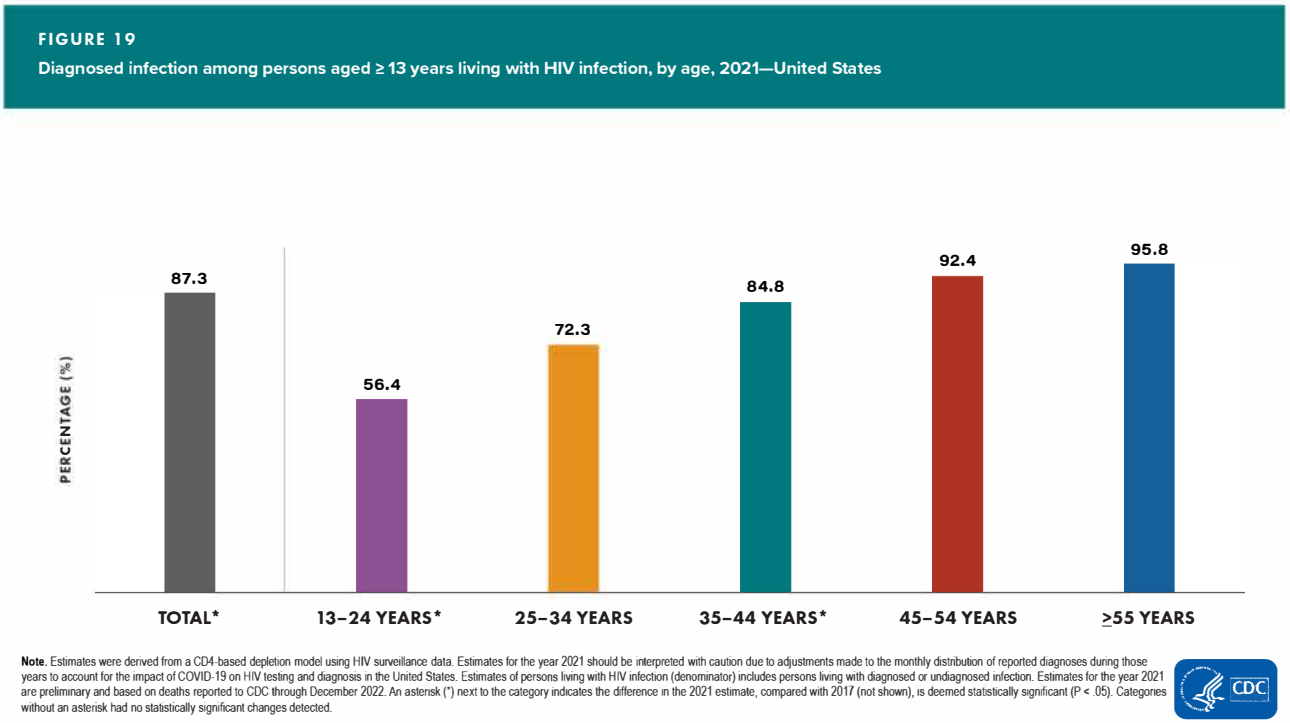
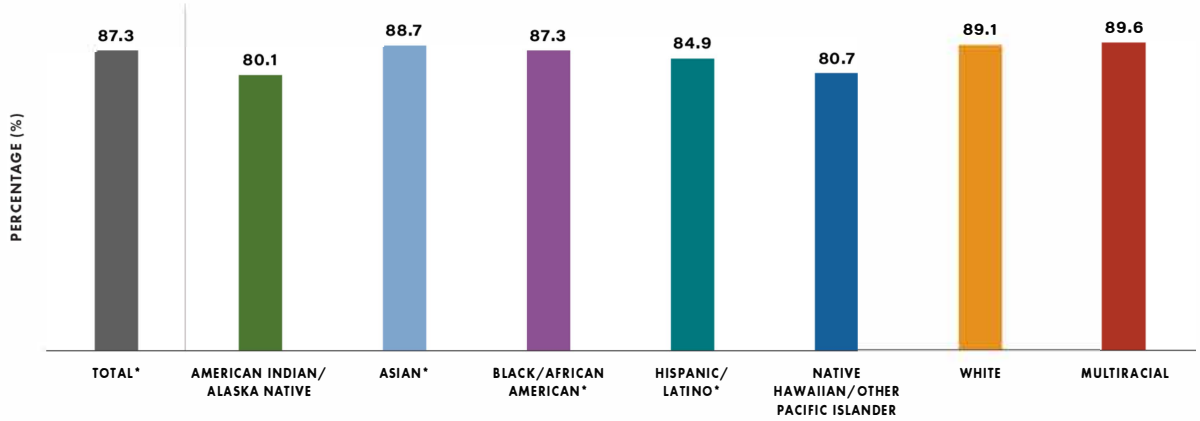


Figure 20. Diagnosed infection among persons aged ≥13 years living with HIV infection, by race/ethnicity, 2021—United States

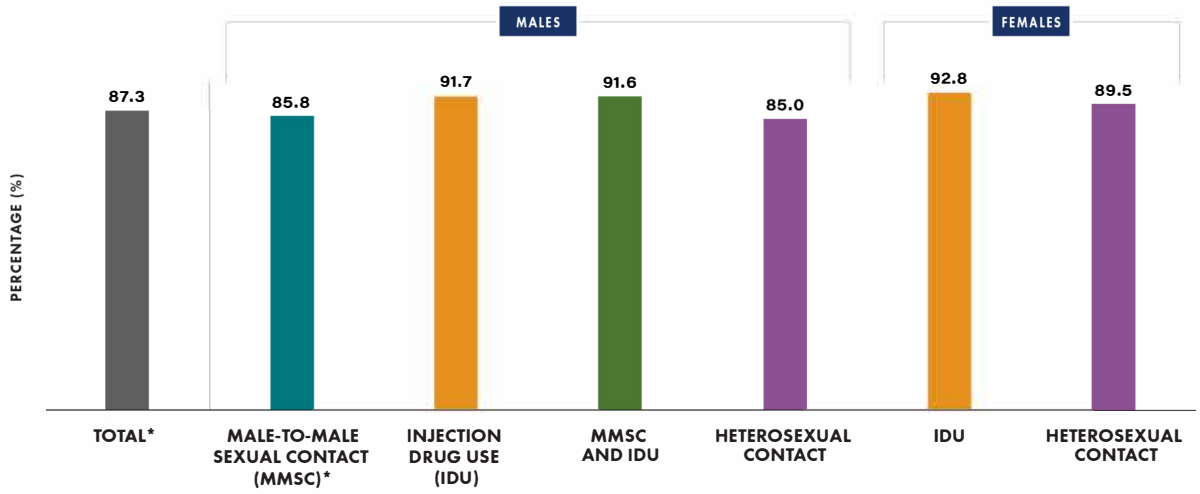
FIGURE 20
Diagnosed infection among persons aged ≥ 13 years living with HIV infection, by race/ethnicity, 2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. Hispanic/Latino persons can be of any race. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Figure 21. Diagnosed infection among persons aged ≥13 years living with HIV infection, by transmission category, 2021—United States

FIGURE 21
Diagnosed infection among persons aged ≥13 years living with HIV infection, by transmission category, 2021—United States

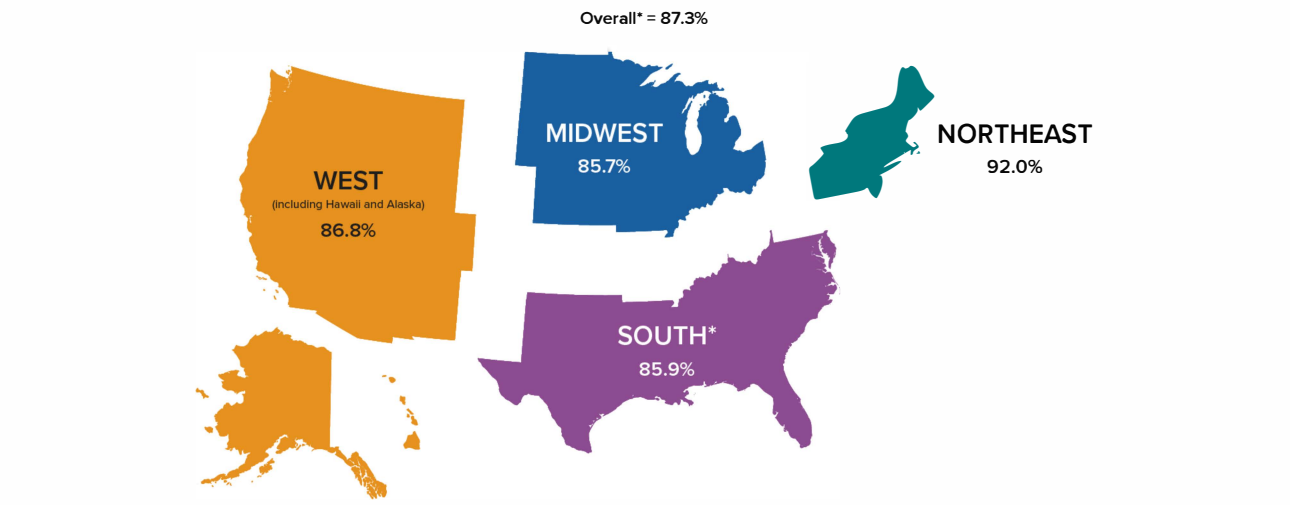


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Figure 22. Diagnosed infection among persons aged ≥13 years living with HIV infection, by region, 2021—United States

FIGURE 22

Diagnosed infection among persons aged ≥13 years living with HIV infection, by region, 2021—United States

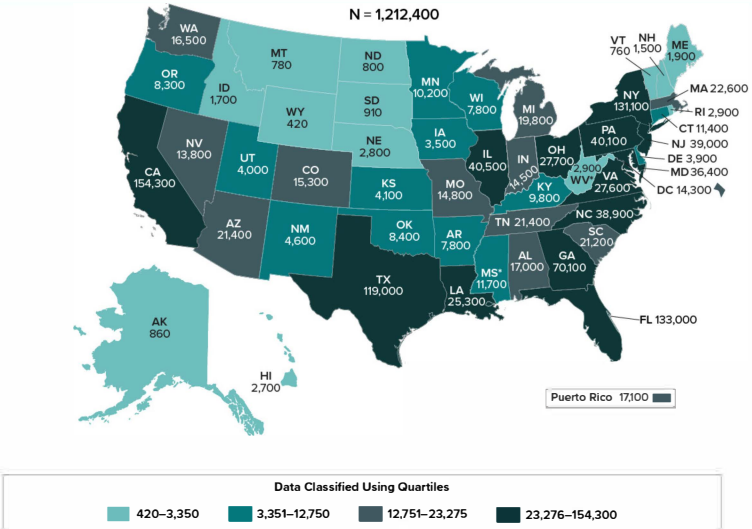


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed or undiagnosed infection. Estimates for the year 2021 are preliminary and based on deaths reported to CDC through December 2022. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017 (not shown), is deemed statistically significant (P < .05). Categories without an asterisk had no statistically significant changes detected.

Figure 23. Estimated HIV prevalence among persons aged ≥13 years, by area of residence, 2021—United States and Puerto Rico

FIGURE 23

Estimated HIV prevalence among persons aged ≥13 years, by area of residence, 2021—United States and Puerto Rico

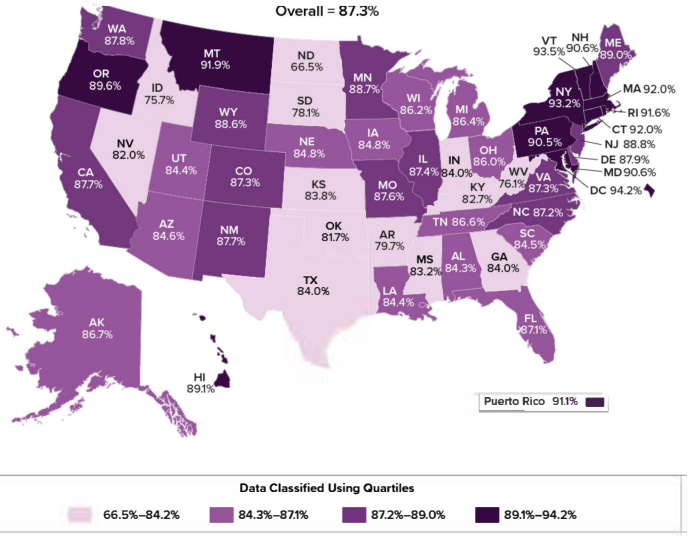


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Data for the year 2021 are preliminary and based on deaths reported to CDC as of December 2022. An asterisk (*) indicates incomplete reporting of deaths to CDC for the year 2021.

Figure 24. Percentages of diagnosed infection among persons aged ≥13 years living with HIV infection, by area of residence, 2021—United States and Puerto Rico

FIGURE 24

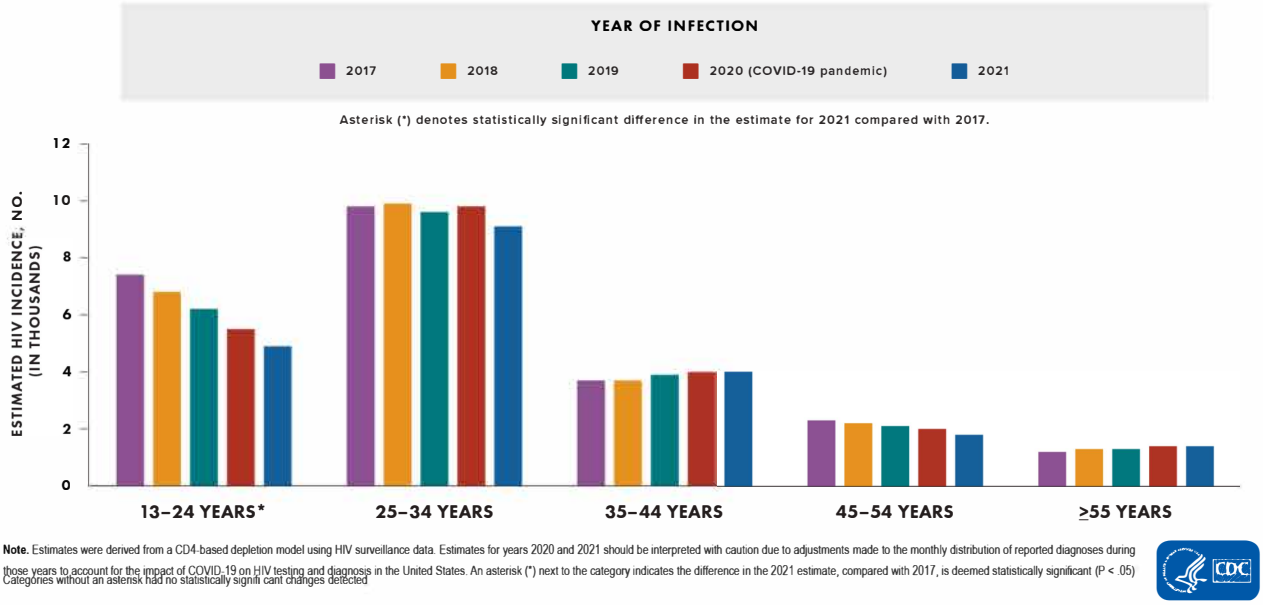
Percentages of diagnosed infection among persons aged ≥13 years living with HIV infection, by area of residence, 2021—United States and Puerto Rico



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for the year 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates of persons living with HIV infection (denominator) includes persons living with diagnosed and undiagnosed infection. Data for the year 2021 are preliminary and based on deaths reported to CDC as of December 2022

Figure 25. Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

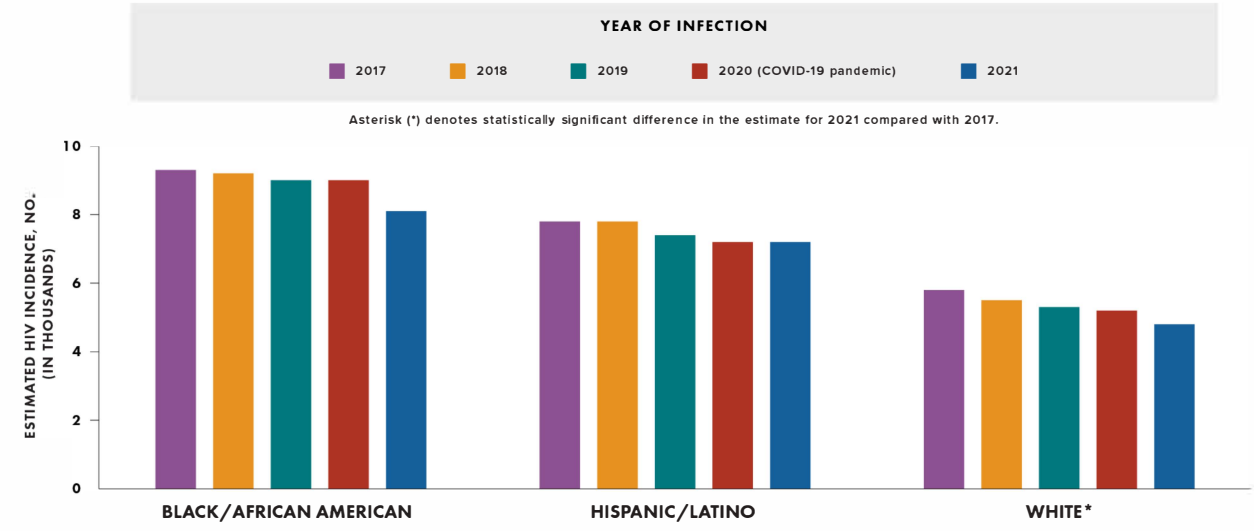
FIGURE 25
Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$) Categories without an asterisk had no statistically signifi cant changes detected

Figure 26. Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by race/ethnicity, 2017–2021—United States

FIGURE 26
Estimated HIV incidence among males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$) Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race

Figure 27. Estimated HIV incidence among Black/African American males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

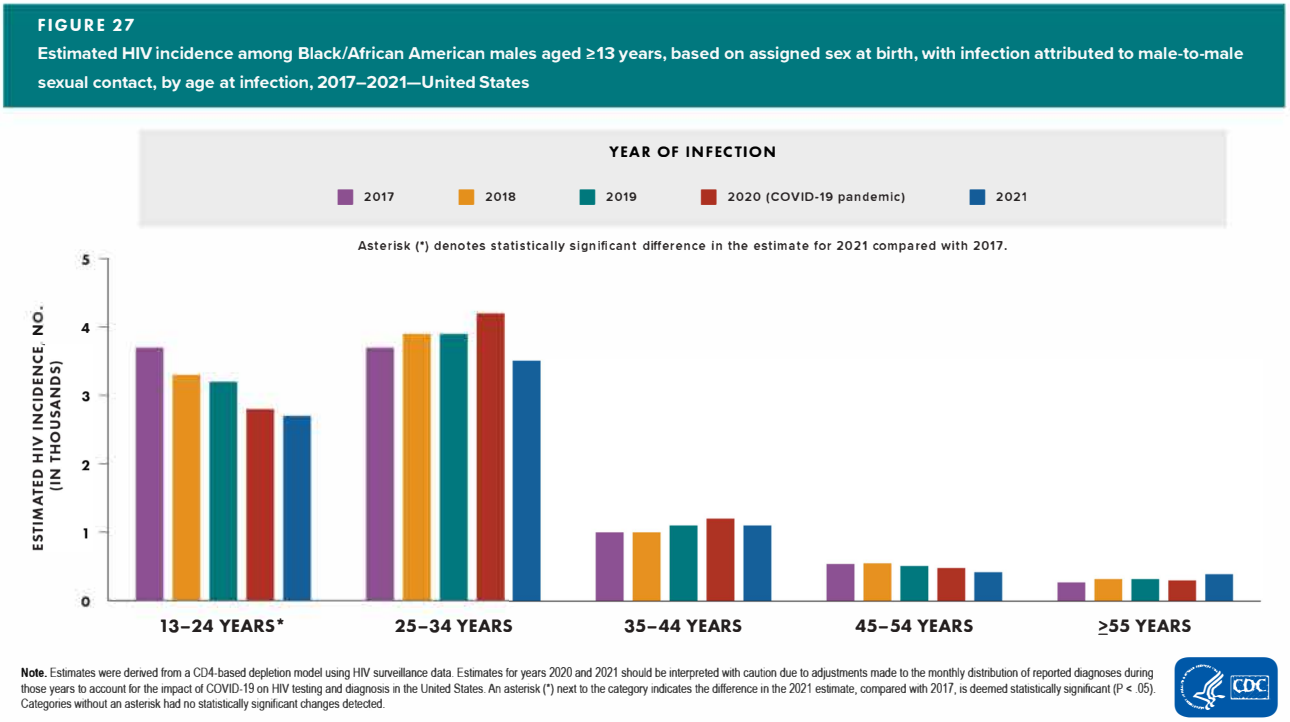
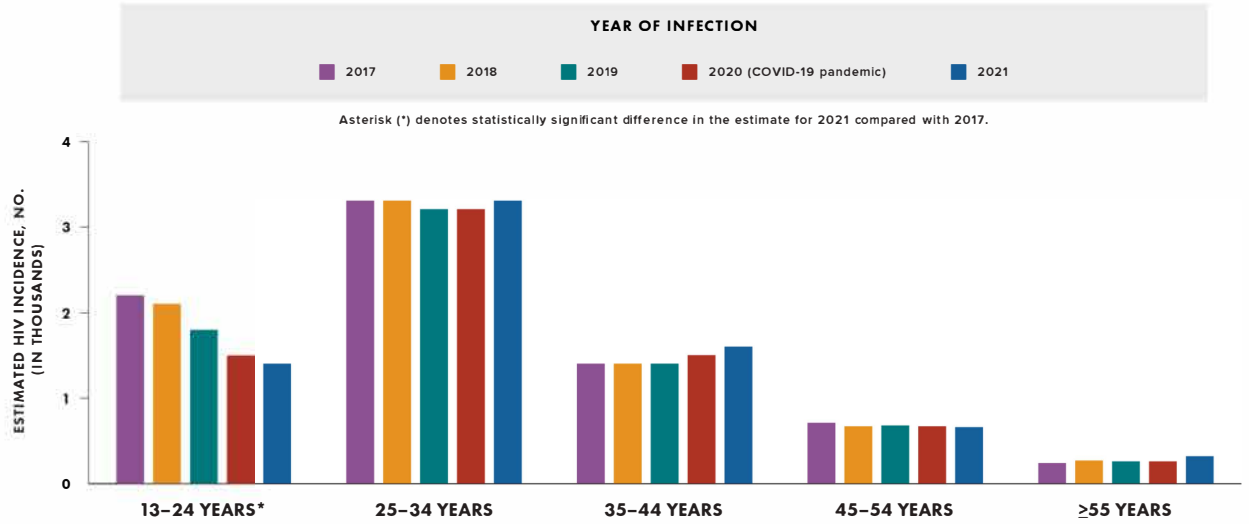


Figure 28. Estimated HIV incidence among Hispanic/Latino males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

FIGURE 28

Estimated HIV incidence among Hispanic/Latino males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

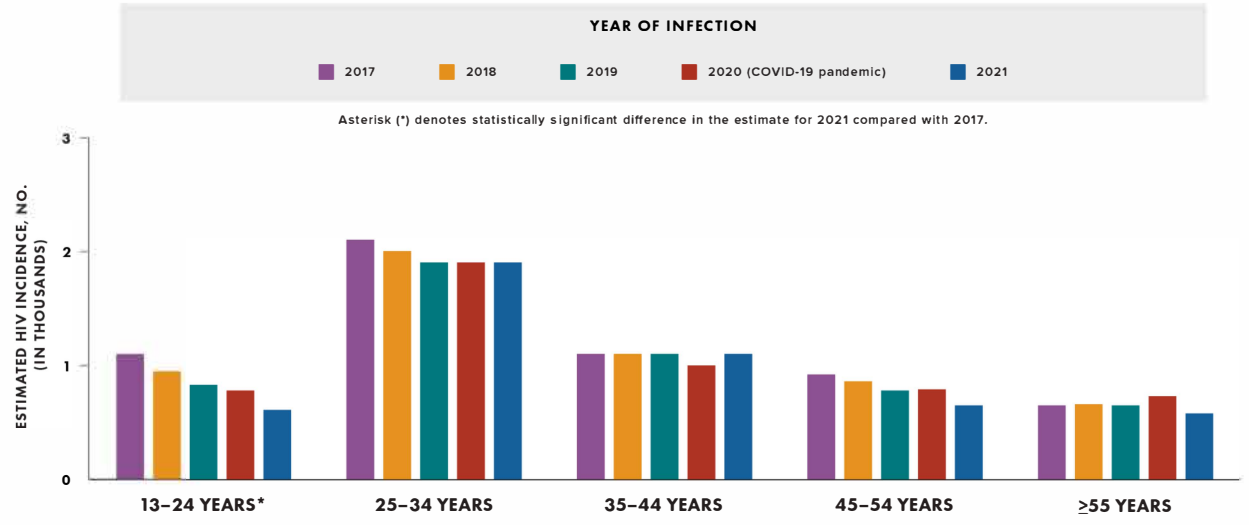


Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected. Hispanic/Latino persons can be of any race.

Figure 29. Estimated HIV incidence among White males aged ≥ 13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States

FIGURE 29

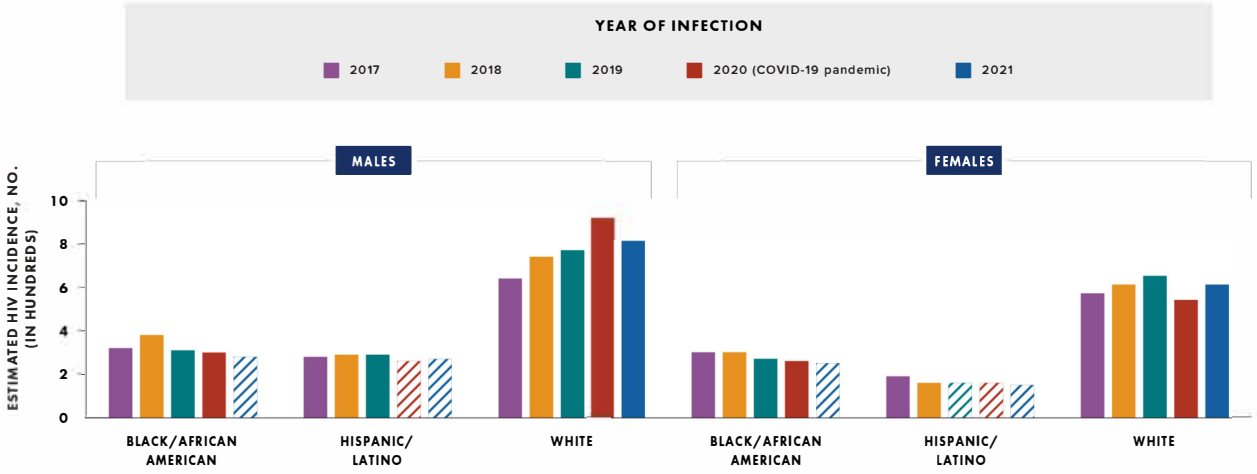
Estimated HIV incidence among White males aged ≥13 years, based on assigned sex at birth, with infection attributed to male-to-male sexual contact, by age at infection, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$). Categories without an asterisk had no statistically significant changes detected.

Figure 30. Estimated HIV incidence among persons aged ≥13 years with infection attributed to injection drug use, by assigned sex at birth and race/ethnicity, 2017–2021—United States

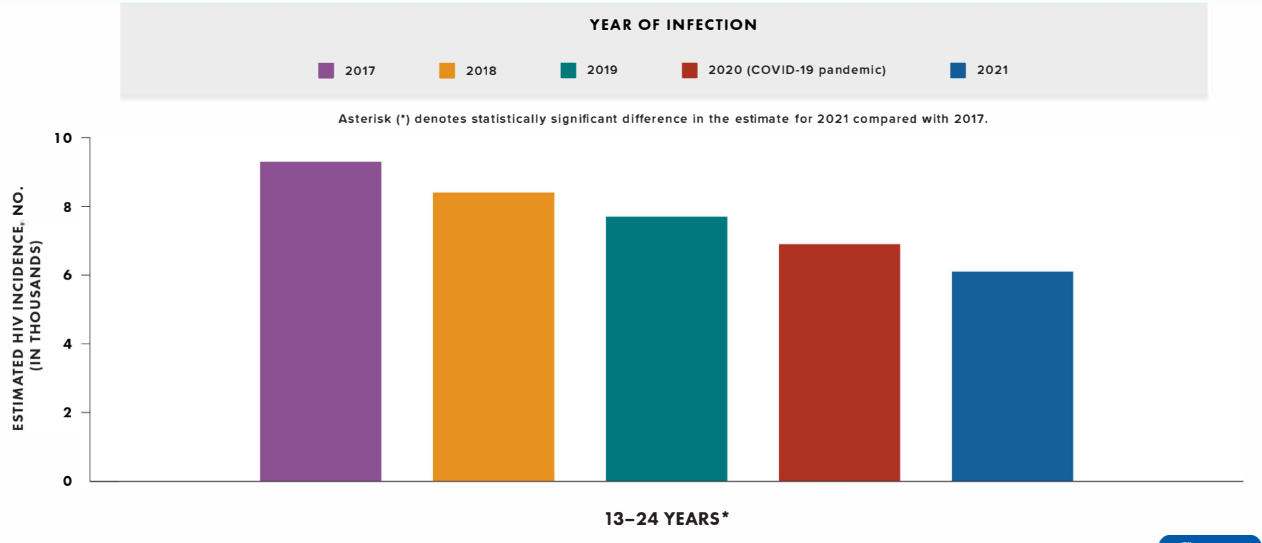
FIGURE 30
Estimated HIV incidence among persons aged ≥13 years with infection attributed to injection drug use, by assigned sex at birth and race/ethnicity, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. A striped bar represents an estimate that meets a lower standard of reliability (relative standard error of estimate 30–50%) and should be interpreted with caution. No statistically significant changes in the category estimates for 2021, compared with 2017, were detected. Hispanic/Latino persons can be of any race.

Figure 31. Estimated HIV incidence among persons aged 13–24 years, 2017–2021—United States

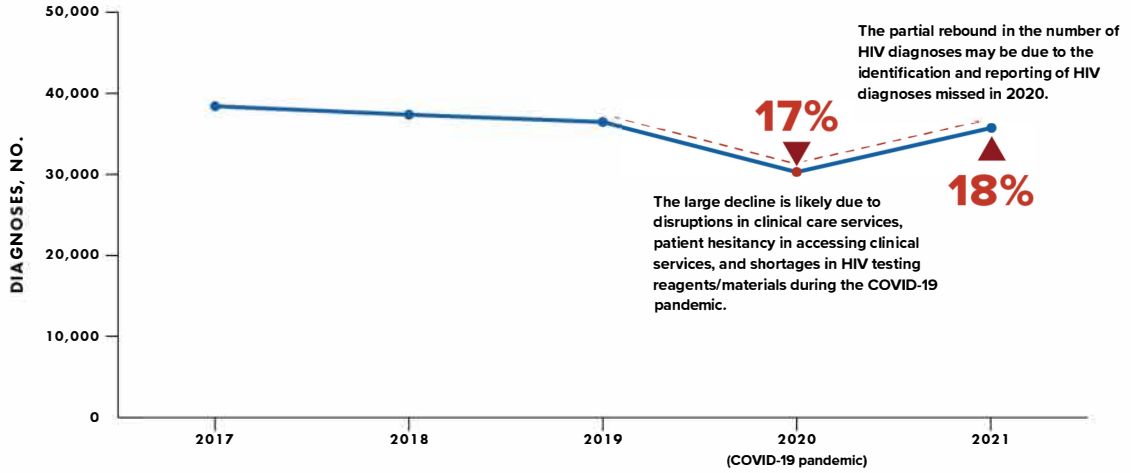
FIGURE 31
Estimated HIV incidence among persons aged 13–24 years, 2017–2021—United States



Note. Estimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020 and 2021 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. An asterisk (*) next to the category indicates the difference in the 2021 estimate, compared with 2017, is deemed statistically significant ($P < .05$)

Figure 32. Diagnoses of HIV infection—United States, 2017–2021

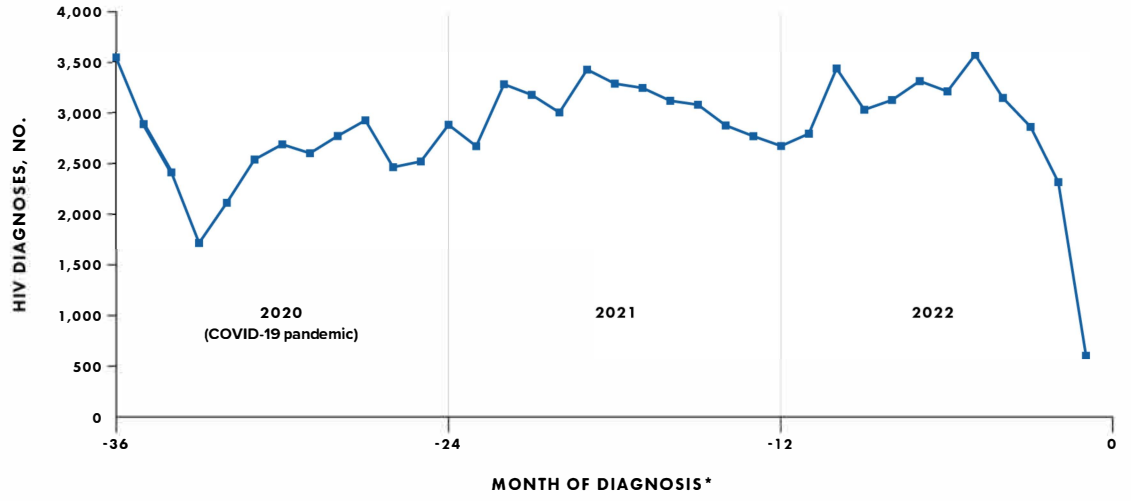
FIGURE 32
Diagnoses of HIV infection—United States, 2017–2021



Note. The overall number of HIV diagnoses in the United States in 2020 (30,335) was 17% lower than in 2019. The decline in 2020 was larger than the average yearly decline (2%–3%) observed during 2017–2019. During 2021, the overall number of HIV diagnoses in the United States (35,769) partially rebounded and was 18% higher than in 2020.

Figure 33. Monthly distribution of HIV diagnoses among persons aged ≥13 years during 2020–2022 reported to the National HIV Surveillance System as of year-end of 2022

FIGURE 33
Monthly distribution of HIV diagnoses among persons aged ≥13 years during 2020–2022 reported to the National HIV Surveillance System as of year-end of 2022



Note. Sharp decline in 2022 (months 0 to -6) are due to routine delays in reporting of HIV diagnoses to the National HIV Surveillance System for the most recent year. *Prior to year-end 2022.

Figure 34. Monthly distribution of three-year periods of HIV diagnoses among persons aged ≥13 years reported to the National HIV Surveillance System at year-end 2017, 2018, and 2019 (pre-COVID-19)

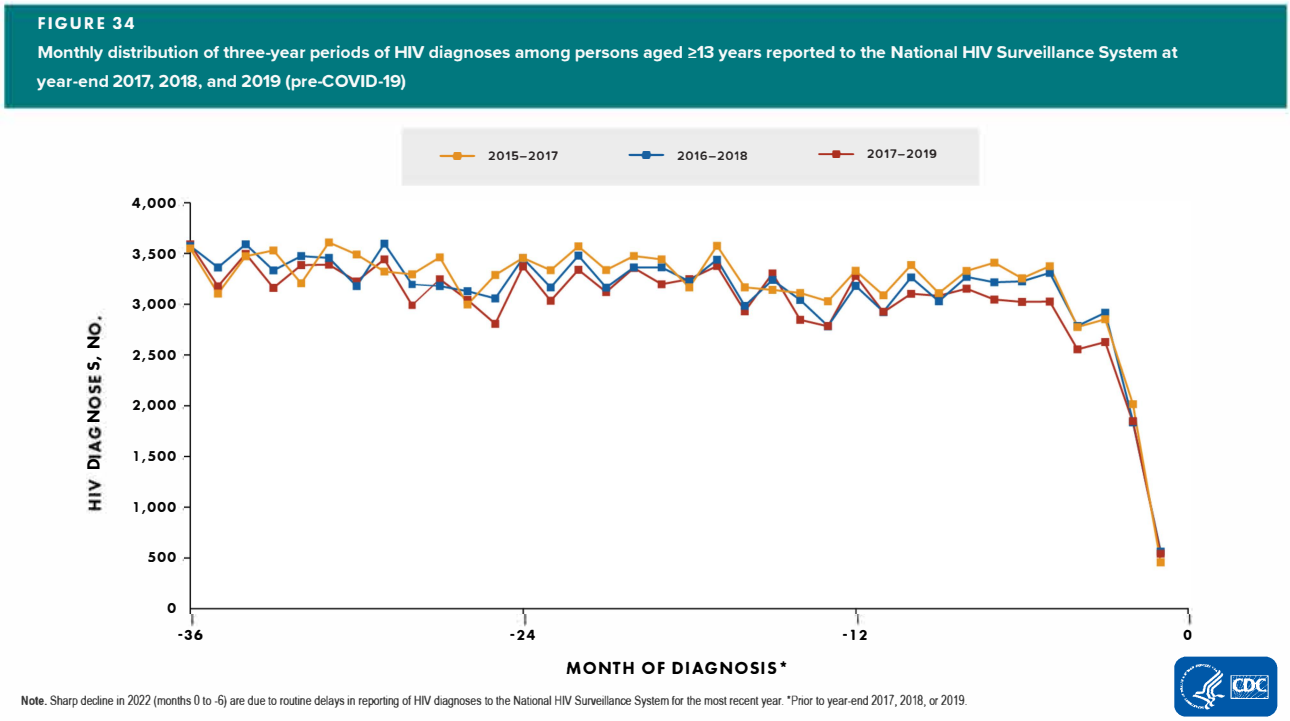
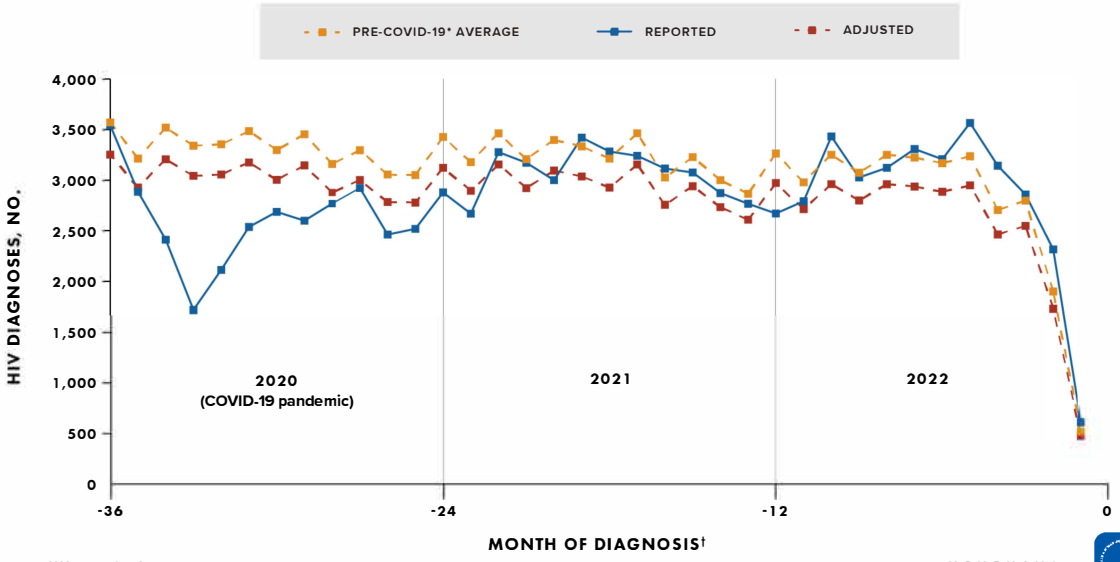


Figure 35. Reported and adjusted monthly distributions of HIV diagnoses during 2020–2022, National HIV Surveillance System data at year-end 2022

FIGURE 35

Reported and adjusted monthly distributions of HIV diagnoses during 2020–2022, National HIV Surveillance System at year-end 2022



Note. Sharp decline in 2022 (months 0 to -6) are due to routine delays in reporting of HIV diagnoses to the National HIV Surveillance System for the most recent year. *Average of reported monthly diagnoses for periods 2015–2017, 2016–2018, and 2017–2019. †Prior to year-end 2022.

Figure 36. Monthly weights applied to 2020-2021 HIV diagnoses for use in CD4 model

Figure 36

Monthly weights applied to 2020–2021 HIV diagnoses for use in CD4 model

YEAR/MONTH (t)		REPORTED DIAGNOSES	ADJUSTED DIAGNOSES	WEIGHT (Wt)
2020	January	3,541	3,253	0.92
	February	2,886	2,928	1.01
	March	2,412	3,206	1.33
	April	1,719	3,043	1.77
	May	2,114	3,056	1.45
	June	2,538	3,175	1.25
	July	2,687	3,004	1.12
	August	2,600	3,146	1.21
	September	2,769	2,878	1.04
	October	2,923	3,002	1.03
	November	2,463	2,784	1.13
	December	2,519	2,779	1.10
2021	January	2,879	3,122	1.08
	February	2,669	2,895	1.09
	March	3,277	3,155	0.96
	April	3,173	2,921	0.92
	May	3,000	3,095	1.03
	June	3,421	3,037	0.89
	July	3,283	2,927	0.89
	August	3,241	3,155	0.97
	September	3,115	2,757	0.89
	October	3,076	2,940	0.96
	November	2,873	2,733	0.95
	December	2,767	2,610	0.94
2022*	January	2,671	2,972	1.11
	February	2,792	2,714	0.97
	March	3,432	2,961	0.86
	April	3,027	2,800	0.93
	May	3,122	2,960	0.95
	June	3,308	2,937	0.89
	July	3,207	2,886	0.90
	August	3,566	2,949	0.83
	September	3,143	2,464	0.78
	October	2,859	2,549	0.89
	November	2,316	1,731	0.75
	December	611	474	0.77
2020–2022	**Total**	101,999	101,999	

*Diagnoses data for the year 2022 were only used to determine the 3-year monthly diagnoses distribution pattern "template" (shaded area). Year 2022 diagnoses data were not used in the CD4 model to estimate incidence and prevalence. Sharp decline in most recent months is due to delays in reporting of HIV diagnoses to the National HIV Surveillance System (NHSS).

Last Reviewed: May 23, 2023

Centers for Disease Control and Prevention

Estimated HIV Incidence and Prevalence in the United States, 2017–2021: Guide to Acronyms and Initialisms

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ASAB	assigned sex at birth
CD4	CD4+ T-lymphocyte count (cells/μL) or percentage
CDC	Centers for Disease Control and Prevention
CI	confidence interval
COVID-19	coronavirus disease 2019
DHP	Division of HIV Prevention
EHE	Ending the HIV Epidemic in the U.S.
HHS	U.S. Department of Health and Human Services
HIV	human immunodeficiency virus
IDU	injection drug use
MMSC	male-to-male sexual contact
MSM	gay, bisexual, and other men who have sex with men
NCHS	National Center for Health Statistics
NHAS	National HIV/AIDS Strategy
NHSS	National HIV Surveillance System
OMB	Office of Management and Budget
PWID	persons who inject drugs
RSE	relative standard error

Last Reviewed: May 18, 2023