Core indicators for monitoring the Ending the HIV Epidemic initiative (preliminary data): HIV diagnoses and linkage to HIV medical care, 2019 (reported through December 2019); and preexposure prophylaxis (PrEP)—2018, updated

Advisory Statement

Effective date: May 21, 2024

Publication date of referenced document: August 2020

Preexposure prophylaxis (PrEP) coverage is currently estimated by taking the number of persons prescribed PrEP (numerator) and dividing it by the estimated number of persons with indications for PrEP (denominator). Since the current methodology for estimating PrEP coverage was first published in 2018, CDC has cited limitations of both the numerator and denominator. For example, the number of persons prescribed PrEP is estimated by using data from the IQVIA pharmacy database based on an algorithm that includes FDA-approved drugs for PrEP. Although IQVIA records 94% of all prescriptions from retail pharmacies and 74% from mail-order outlets in the United States, data from closed health care systems are not included in the IQVIA data set. Therefore, the current PrEP numerator has represented minimum estimates of PrEP prescriptions. Additionally, race/ethnicity data in the IQVIA database are only available for <40% of persons prescribed PrEP each year. Regarding limitations of the current denominator, the number of persons who have indications for PrEP is estimated by using data from 3 sources: National HIV Surveillance System, National Health and Nutrition Examination Survey, and U.S. Census Bureau's American Community Survey. Each of these data sources have different schedules of data availability. As a result, the availability of a denominator often lags the availability of a numerator.

In March 2024, updated data from 2 closed-system sources were made available to CDC that can improve the representativeness of the number of persons prescribed PrEP in the United States. In the coming months, CDC also expects to have updates to the data sets currently used to estimate the number of persons with indications for PrEP. To ensure that PrEP coverage estimates are calculated using the best available data at the time of publication, CDC is pausing PrEP coverage reporting for one year. During this time, CDC will update PrEP coverage data sources and determine the best way to present PrEP coverage. CDC plans to resume PrEP coverage reporting in the next HIV Surveillance Supplemental (Monitoring) Report, currently scheduled for publication in June 2025.

Until updated estimates are published, CDC advises against citing specific PrEP coverage data points and instead recommends referencing general trends and disparities. In addition, because of a formula error that affects a subset of race and ethnicity PrEP data, race and ethnicity data points from all reports published prior to 2024 should not be cited.

HIV SURVEILLANCE DATA TABLES

Vol. 1, No. 2

Core Indicators for Monitoring the Ending the HIV Epidemic Initiative *(Preliminary Data)*:

HIV Diagnoses and Linkage to HIV Medical Care, 2019 *(Reported through December 2019)*; and Preexposure Prophylaxis (PrEP)—2018, *Updated*

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

This issue of *HIV Surveillance Data Tables* is published by the Division of HIV/AIDS Prevention (DHAP), National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia.

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

Suggested citation

Centers for Disease Control and Prevention. HIV Surveillance Data Tables (early release): Core indicators for monitoring the Ending the HIV Epidemic initiative *(preliminary data)*: HIV diagnoses and linkage to HIV medical care, 2019 *(reported through December 2019)*; and preexposure prophylaxis (PrEP)—2018, *updated*. HIV Surveillance Data Tables 2020;1(No. 2). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published August 2020. Accessed [date].

On the Web: http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html

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

CDC-INFO
1-800-232-4636 (in English, en Español)
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Acknowledgments

Publication of *HIV Surveillance Data Tables* was made possible by the contributions of the state and territorial health departments and the HIV surveillance programs that provided surveillance data to CDC.

HIV Surveillance Data Tables was prepared by the following staff and contractors of the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC: Anna Satcher Johnson, Zanetta Gant, Ya-lin Huang, Dawn Smith, Norma Harris, Xiaohong Hu, Jianmin Li, Baohua Wu, Daneisha Hawkins, Chan Jin, Shihua Wang, Chenchen Yu, Irene Hall, and Michael Friend and the Web and Consumer Services Team of the Prevention Communications Branch (editing and desktop publishing).

Contents

Technical Notes

The *Ending the HIV Epidemic: A Plan for America* (EHE) initiative will leverage critical scientific advances in HIV prevention, diagnosis, treatment, and outbreak response [1]. The goal of the initiative is to reduce new HIV infections by 75% in 5 years and by at least 90% in 10 years. Throughout the initiative, the Centers for Disease Control and Prevention (CDC) will routinely release *HIV Surveillance Data Tables* on the 6 core indicators for EHE to allow for more timely monitoring of progress. The full list of EHE core indicators and their definitions can be found in the Technical Notes of the *Core Indicators for Monitoring the Ending the HIV Epidemic Initiative* report at https://www.cdc.gov/hiv/library/reports/ehe-core-indicators/index.html.

The tables included in this report provide *preliminary* data on HIV diagnoses and linkage to HIV medical care for the year 2019. Updated data on preexposure prophylaxis (PrEP) coverage for the year 2018 (and 2017 for Puerto Rico) are also included. Data for all 3 indicators are provided at the national-, state-, and county-level (EHE Phase I jurisdictions only). See Tabulation and Presentation of Data for details on how the indicators are calculated.

Tabulation and Presentation of Data

Diagnoses of HIV Infection

Diagnoses of HIV infection are the numbers of persons aged ≥13 years whose HIV infection was diagnosed during 2019 (Tables 1a–d).

Data presented were reported (after the removal of personally identifiable information) to CDC's National HIV Surveillance System (NHSS) through December 31, 2019. Please use caution when interpreting data on diagnoses of HIV infection. HIV surveillance reports may not be representative of all persons with HIV because not all infected persons have been (1) tested or (2) tested at a time when the infection could be detected and diagnosed. Also, some states offer anonymous HIV testing; the results of anonymous tests are not reported to the confidential, name-based HIV registries of state and local health departments. Therefore, reports of confidential test results may not represent all persons who tested positive for HIV infection.

More information on counting diagnoses of HIV infection can be found at https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-31/index.html (*HIV Surveillance Report, 2018 [Updated]*).

Linkage to HIV Medical Care

Linkage to HIV medical care within 1 month of HIV diagnosis is measured for persons aged ≥13 years whose HIV infection was diagnosed during the specified month/year, and who resided in any of the jurisdictions (including EHE Phase I jurisdictions) with complete reporting of laboratory data to CDC at the time of diagnosis (Tables 2a–c). The numerator is the number of persons aged ≥13 years whose HIV infection was diagnosed during the specified month/year, and who had ≥1 CD4 or viral load (VL) tests within 1 month of HIV diagnosis. The denominator is the number of persons aged ≥13 years whose HIV infection was diagnosed during the specified month/year. Data are not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho, New Jersey, and Pennsylvania. Areas with incomplete reporting: Arizona, Arkansas, Connecticut, Kansas, Kentucky, Puerto Rico, and Vermont.

More information on calculating linkage to care can be found at https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-25-2.pdf (*Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2018*).

Preexposure Prophylaxis (PrEP) Coverage

PrEP coverage, reported as a percentage, is defined as the number of persons aged ≥16 years classified as having been prescribed PrEP during the specified year divided by the estimated number of persons aged ≥16 years who had indications for PrEP during the specified year (Tables 3a–d).

Number of persons prescribed, which is reported as a case count, is defined as the number of persons aged ≥16 years classified as having been prescribed PrEP during the specified year.

PrEP coverage is an EHE indicator that is not a reportable disease or condition and is not reported to

NHSS. Multiple data sources, described below, are used to calculate PrEP coverage. Please use caution when interpreting PrEP data. Different data sources were used in the numerator and denominator to calculate PrEP coverage.

Persons prescribed PrEP

National pharmacy data from the IQVIA Real World Data–Longitudinal Prescriptions database (hereafter, IQVIA database) are used to classify persons aged ≥16 years who have been prescribed PrEP in the specific year. The IQVIA database captures prescriptions from all payers and represents approximately 92% of all prescriptions from retail pharmacies and 60%–86% from mail-order outlets in the United States. The database does not include prescriptions from some closed health care systems that do not make their prescription data available to IQVIA. Therefore, these are minimum estimates of PrEP coverage. The annual number of persons classified as having been prescribed PrEP was based on a validated algorithm that discerns whether tenofovir disoproxil fumarate and emtricitabine (TDF/FTC) were prescribed for PrEP after excluding prescriptions for HIV treatment, hepatitis B treatment, or HIV postexposure prophylaxis [2–4].

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

Geographic Designations

In the IQVIA database, a person's location is reported as a 3-digit ZIP code prefix (hereafter, ZIP3) assigned by the U.S. Postal Service. To estimate the number of persons prescribed PrEP at the state or county level, a probability-based approach is used to crosswalk between ZIP3s and states/counties by using data from (a) the U.S Census Bureau's American Community Survey (ACS) 5-year estimates by ZIP Code Tabulation Areas (ZCTAs) [5], and (b) the U.S Department of Housing and Urban Development's ZIP Code Crosswalk Files [6]. Because of reliability concerns, subnational estimates of <40 are not included in this report.

Persons with PrEP indications

ACS and U.S. Census Bureau datasets were used to estimate the number of men who have sex with men (MSM) in a jurisdiction. Next, behavioral data from the National Health and Nutrition Examination Survey (NHANES) were used to estimate the proportion of HIV-negative MSM with indications for PrEP [7].

The number of HIV-negative MSM with indications for PrEP was multiplied by the ratio of percentage of HIV diagnoses during the specified year attributed to other major transmission risk groups compared to the percentage among MSM in a given state or county. The estimated numbers of persons with indications for PrEP in the 3 major transmission risk groups (MSM, heterosexuals, persons who inject drugs) in each jurisdiction were then summed to yield a state- or county-specific estimate. State estimates were then summed for a national total of persons with indications for PrEP [8].

The number of MSM in a jurisdiction is determined using the ACS as one of the 3 data sources used to estimate the number of persons with indications for PrEP (i.e., PrEP coverage denominator). However, prior to 2018, the ACS did not include data needed to estimate the number of persons with indications for PrEP in Puerto Rico; consequently, the number of persons with indications for PrEP in Puerto Rico in 2017 was not available. In 2018, the ACS conducted a separate Puerto Rico survey and these data were used to determine the number of persons with indications for PrEP in 2018 for Puerto Rico. In addition, 2017 PrEP coverage for Puerto Rico is now provided using the 2018 denominator for Puerto Rico.

The data sources used to estimate the number of persons with indications for PrEP have different schedules of data availability. Consequently, the availability of a denominator lags the availability of a numerator by approximately 1 year. For this release of the HIV Surveillance Data Tables, 2018 PrEP coverage data have been updated for all jurisdictions and added for Puerto Rico. Data tables for 2018 include updated 2018 denominators and updated 2018 PrEP coverage for national-, state-, and EHE county-level data.

REFERENCES

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 July 13, 2020.
2. Wu H, Mendoza MC, Huang YA, Hayes T, Smith DK, Hoover KW. Uptake of HIV preexposure prophylaxis among commercially insured persons—United States, 2010–2014. *Clin Infect Dis* 2017; 64(2):144–149. doi:10.1093/cid/ciw701
3. CDC [Huang YA, Zhu W, Smith DK, Harris N, Hoover KW]. HIV preexposure prophylaxis, by race and ethnicity—United States, 2014–2016. *MMWR* 2018;67(41): 1147–1150. doi:10.15585/mmwr.mm6741a3
4. Furukawa NW, Smith DK, Gonzalez CJ, et al. Evaluation of algorithms used for PrEP surveillance using a reference population from New York City, July 2016–June 2018. *Public Health Rep* 2020;135(2):202–210. doi:10.1177/0033354920904085
5. U.S. Census Bureau. American Community Survey 5-year data (2009-2018). https://www.census.gov/data/developers/data-sets/acs-5year.2018.html. Published December 19, 2019. Accessed July 13, 2020.
6. HUD. HUD USPS ZIP code crosswalk files. https://www.huduser.gov/portal/datasets/usps_crosswalk.html. Published 2019. Accessed July 13, 2020.
7. CDC [Smith DK, Van Handel M, Wolitski RJ, et al]. Vital Signs: Estimated percentages and numbers of adults with indications for preexposure prophylaxis to prevent HIV acquisition—United States, 2015. *MMWR* 2015;64(46):1291–1295. doi:10.15585/mmwr.mm6446a4
8. Smith DK, Van Handel M, Grey J. Estimates of adults with indications for HIV pre-exposure prophylaxis by jurisdiction, transmission risk group, and race/ethnicity, United States, 2015. *Ann Epidemiol* 2018;28(12):850–857.e9. doi:10.1016/j.annepidem.2018.05.003

Table 1a. Diagnoses of HIV infection among persons aged ≥ 13 years, by selected characteristics, 2019—United States (*preliminary*)

	2019 Total No.
Gender	
Male	25,147
Female	6,013
Transgender male-to-female[a]	463
Transgender female-to-male[a]	30
Additional gender identity[b]	17
Age at diagnosis (yr)	
13–24	6,466
25–34	11,402
35–44	6,139
45–54	4,303
≥55	3,360
Race/ethnicity	
American Indian/Alaska Native	202
Asian	651
Black/African American	13,926
Hispanic/Latino[c]	8,097
Native Hawaiian/other Pacific Islander	66
White	8,156
Multiple races	572
Transmission category[d]	
Male-to-male sexual contact	21,047
Injection drug use	
Male	1,223
Female	945
Male-to-male sexual contact and injection drug use	1,120
Heterosexual contact[e]	
Male	2,197
Female	5,066
Other[r]	
Male	37
Female	36
Region of residence[g]	
Northeast	4,608
Midwest	4,308
South	16,653
West	6,101
Total	**31,670**

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

[b] Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

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

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

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

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

[g] Data are based on residence at time of diagnosis of HIV infection.

Table 1b. Diagnoses of HIV infection among persons aged ≥ 13 years, by selected characteristics, 2019—United States and 6 dependent areas (*preliminary*)

	2019 Total No.
Gender	
Male	25,426
Female	6,076
Transgender male-to-female[a]	466
Transgender female-to-male[a]	30
Additional gender identity[b]	17
Age at diagnosis (yr)	
13–24	6,517
25–34	11,494
35–44	6,209
45–54	4,361
≥55	3,434
Race/ethnicity	
American Indian/Alaska Native	202
Asian	657
Black/African American	13,926
Hispanic/Latino[c]	8,428
Native Hawaiian/other Pacific Islander	70
White	8,160
Multiple races	572
Transmission category[d]	
Male-to-male sexual contact	21,241
Injection drug use	
Male	1,243
Female	950
Male-to-male sexual contact and injection drug use	1,130
Heterosexual contact[e]	
Male	2,255
Female	5,123
Other[r]	
Male	37
Female	36
Region of residence[g]	
Northeast	4,608
Midwest	4,308
South	16,653
West	6,101
U.S. dependent areas	345
Total	**32,015**

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

[b] Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

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

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

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

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

[g] Data are based on residence at time of diagnosis of HIV infection.

Table 1c. Diagnoses of HIV infection among persons aged ≥ 13 years, by area of residence, 2019—United States and Puerto Rico (*preliminary*)

Area of residence	2019 Total No.
Alabama	536
Alaska	27
Arizona	644
Arkansas	264
California	3,529
Colorado	427
Connecticut	164
Delaware	88
District of Columbia	231
Florida	4,334
Georgia	1,966
Hawaii	57
Idaho	21
Illinois	1,106
Indiana	464
Iowa	92
Kansas	118
Kentucky	231
Louisiana	901
Maine	29
Maryland	783
Massachusetts	436
Michigan	652
Minnesota	265
Mississippi	421
Missouri	470
Montana	25
Nebraska	78
Nevada	442
New Hampshire	27
New Jersey	859
New Mexico	121
New York	2,102
North Carolina	1,335
North Dakota	31
Ohio	820
Oklahoma	188
Oregon	186
Pennsylvania	927
Puerto Rico	334
Rhode Island	54
South Carolina	664
South Dakota	19
Tennessee	721
Texas	3,064
Utah	126
Vermont	10
Virginia	804
Washington	483
West Virginia	122
Wisconsin	193
Wyoming	13

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

Table 1d. Diagnoses of HIV infection among persons aged ≥ 13 years, by area of residence, 2019—Ending the HIV Epidemic Phase I jurisdictions (*preliminary*)

Area of residence	2019 Total No.
Arizona	
Maricopa County	428
California	
Alameda County	204
Los Angeles County	1,182
Orange County	231
Riverside County	231
Sacramento County	89
San Bernardino County	235
San Diego County	169
San Francisco County	202
District of Columbia	231
Florida	
Broward County	588
Duval County	269
Hillsborough County	275
Miami-Dade County	1,126
Orange County	469
Palm Beach County	214
Pinellas County	196
Georgia	
Cobb County	142
DeKalb County	297
Fulton County	494
Gwinnett County	142
Illinois	
Cook County	801
Indiana	
Marion County	196
Louisiana	
East Baton Rouge Parish	151
Orleans Parish	161
Maryland	
Baltimore City	157
Montgomery County	133
Prince George's County	220
Massachusetts	
Suffolk County	108
Michigan	
Wayne County	273
Nevada	
Clark County	397
New Jersey	
Essex County	185
Hudson County	117

Table 1d. Diagnoses of HIV infection among persons aged ≥ 13 years, by area of residence, 2019—Ending the HIV Epidemic Phase I jurisdictions (*preliminary*) *(cont)*

Area of residence	2019 Total No.
New York	
Bronx County	431
Kings County	420
New York County	300
Queens County	325
North Carolina	
Mecklenburg County	255
Ohio	
Cuyahoga County	134
Franklin County	135
Hamilton County	160
Pennsylvania	
Philadelphia County	353
Puerto Rico	
San Juan Municipio	71
Tennessee	
Shelby County	244
Texas	
Bexar County	329
Dallas County	640
Harris County	785
Tarrant County	212
Travis County	159
Washington	
King County	263

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

Table 2a. Linkage to HIV medical care within 1 month after HIV diagnosis, among persons aged ≥13 years with HIV diagnosed January–September 2019, by selected characteristics—41 states and the District of Columbia (*preliminary*)

		≥1 CD4 or VL tests		No CD4 or VL test	
	Total No.	No.	%	No.	%
Gender					
Male	19,042	15,485	81.3	3,557	18.7
Female	4,471	3,594	80.4	877	19.6
Transgender male-to-female[a]	357	290	81.2	67	18.8
Transgender female-to-male[a]	23	18	78.3	5	21.7
Additional gender identity[b]	11	11	100	0	0.0
Age at diagnosis (yr)					
13–24	4,969	3,911	78.7	1,058	21.3
25–34	8,616	6,932	80.5	1,684	19.5
35–44	4,585	3,756	81.9	829	18.1
45–54	3,261	2,724	83.5	537	16.5
≥55	2,473	2,075	83.9	398	16.1
Race/ethnicity					
American Indian/Alaska Native	121	104	86.0	17	14.0
Asian	477	404	84.7	73	15.3
Black/African American	10,687	8,425	78.8	2,262	21.2
Hispanic/Latino[c]	6,136	5,104	83.2	1,032	16.8
Native Hawaiian/other Pacific Islander	47	37	78.7	10	21.3
White	5,960	4,928	82.7	1,032	17.3
Multiple races	476	396	83.2	80	16.8
Transmission category[d]					
Male-to-male sexual contact	16,005	13,081	81.7	2,924	18.3
Injection drug use					
Male	843	647	76.7	196	23.3
Female	697	537	77.1	160	22.9
Male-to-male sexual contact and injection drug use	838	672	80.1	166	19.9
Heterosexual contact[e]					
Male	1,694	1,361	80.3	333	19.7
Female	3,774	3,054	80.9	720	19.1
Total[f]	**23,904**	**19,398**	**81.1**	**4,506**	**18.9**

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

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

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

[b] Additional gender identity examples include "bigender," "gender queer," and "two-spirit."

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

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

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

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

Table 2b. Linkage to HIV medical care within 1 month after HIV diagnosis, among persons aged ≥13 years with HIV diagnosed January–September 2019, by area of residence—41 states and the District of Columbia (*preliminary*)

Area of residence	Total No.	≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%
Alabama	453	359	79.2	94	20.8
Alaska	23	19	82.6	4	17.4
California	3,046	2,544	83.5	502	16.5
Colorado	352	291	82.7	61	17.3
Delaware	76	58	76.3	18	23.7
District of Columbia	190	163	85.8	27	14.2
Florida	3,459	2,895	83.7	564	16.3
Georgia	1,749	1,460	83.5	289	16.5
Hawaii	51	42	82.4	9	17.6
Illinois	955	798	83.6	157	16.4
Indiana	381	227	59.6	154	40.4
Iowa	69	65	94.2	4	5.8
Louisiana	716	591	82.5	125	17.5
Maine	24	22	91.7	2	8.3
Maryland	680	619	91.0	61	9.0
Massachusetts	405	367	90.6	38	9.4
Michigan	499	418	83.8	81	16.2
Minnesota	209	193	92.3	16	7.7
Mississippi	336	235	69.9	101	30.1
Missouri	378	283	74.9	95	25.1
Montana	19	18	94.7	1	5.3
Nebraska	60	48	80.0	12	20.0
Nevada	388	321	82.7	67	17.3
New Hampshire	22	21	95.5	1	4.5
New Mexico	97	88	90.7	9	9.3
New York	1,772	1,560	88.0	212	12.0
North Carolina	1,039	823	79.2	216	20.8
North Dakota	29	28	96.6	1	3.4
Ohio	712	591	83.0	121	17.0
Oklahoma	170	108	63.5	62	36.5
Oregon	141	123	87.2	18	12.8
Rhode Island	54	49	90.7	5	9.3
South Carolina	562	498	88.6	64	11.4
South Dakota	16	13	81.3	3	18.8
Tennessee	583	372	63.8	211	36.2
Texas	2,776	1,932	69.6	844	30.4
Utah	94	75	79.8	19	20.2
Virginia	663	515	77.7	148	22.3
Washington	376	329	87.5	47	12.5
West Virginia	115	86	74.8	29	25.2
Wisconsin	153	139	90.8	14	9.2
Wyoming	12	12	100	0	0.0
Total	**23,904**	**19,398**	**81.1**	**4,506**	**18.9**

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

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

Table 2c. Linkage to HIV medical care within 1 month after HIV diagnosis, among persons aged ≥13 years with HIV diagnosed January–September 2019, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (*preliminary*)

		≥1 CD4 or VL tests		No CD4 or VL test	
Area of residence	**Total No.**	**No.**	**%**	**No.**	**%**
California					
Alameda County	163	149	91.4	14	8.6
Los Angeles County	1,042	849	81.5	193	18.5
Orange County	189	149	78.8	40	21.2
Riverside County	186	152	81.7	34	18.3
Sacramento County	76	67	88.2	9	11.8
San Bernardino County	215	158	73.5	57	26.5
San Diego County	162	140	86.4	22	13.6
San Francisco County	167	162	97.0	5	3.0
District of Columbia	190	163	85.8	27	14.2
Florida					
Broward County	458	400	87.3	58	12.7
Duval County	202	159	78.7	43	21.3
Hillsborough County	202	176	87.1	26	12.9
Miami-Dade County	932	777	83.4	155	16.6
Orange County	373	297	79.6	76	20.4
Palm Beach County	170	132	77.6	38	22.4
Pinellas County	161	137	85.1	24	14.9
Georgia					
Cobb County	131	113	86.3	18	13.7
DeKalb County	264	222	84.1	42	15.9
Fulton County	436	366	83.9	70	16.1
Gwinnett County	123	105	85.4	18	14.6
Illinois					
Cook County	685	571	83.4	114	16.6
Indiana					
Marion County	165	82	49.7	83	50.3
Louisiana					
East Baton Rouge Parish	121	107	88.4	14	11.6
Orleans Parish	135	113	83.7	22	16.3
Maryland					
Baltimore City	142	130	91.5	12	8.5
Montgomery County	117	109	93.2	8	6.8
Prince George's County	192	175	91.1	17	8.9
Massachusetts					
Suffolk County	102	94	92.2	8	7.8
Michigan					
Wayne County	209	184	88.0	25	12.0
Nevada					
Clark County	353	289	81.9	64	18.1

Table 2c. Linkage to HIV medical care within 1 month after HIV diagnosis, among persons aged ≥13 years with HIV diagnosed January–September 2019, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (*preliminary*) *(cont)*

Area of residence	Total No.	≥1 CD4 or VL tests		No CD4 or VL test	
		No.	%	No.	%
New York					
Bronx County	372	322	86.6	50	13.4
Kings County	360	318	88.3	42	11.7
New York County	269	241	89.6	28	10.4
Queens County	270	229	84.8	41	15.2
North Carolina					
Mecklenburg County	194	151	77.8	43	22.2
Ohio					
Cuyahoga County	110	97	88.2	13	11.8
Franklin County	134	123	91.8	11	8.2
Hamilton County	132	114	86.4	18	13.6
Pennsylvania					
Philadelphia County	320	271	84.7	49	15.3
Tennessee					
Shelby County	200	119	59.5	81	40.5
Texas					
Bexar County	278	178	64.0	100	36.0
Dallas County	550	406	73.8	144	26.2
Harris County	764	512	67.0	252	33.0
Tarrant County	176	119	67.6	57	32.4
Travis County	142	124	87.3	18	12.7
Washington					
King County	193	171	88.6	22	11.4

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

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

Table 3a. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018, among persons aged ≥16 years, by selected characteristics—United States

	Persons prescribed PrEP[a]	Persons with PrEP indications[b]	PrEP coverage[c]
	No.	No.	%
Sex at birth			
Male	204,812	981,089	20.9
Female	14,770	225,573	6.5
Age (yr)			
16–24	28,860	244,663	11.8
25–34	91,077	431,142	21.1
35–44	51,083	236,275	21.6
45–54	31,300	170,734	18.3
≥55	17,371	121,833	14.3
Race/ethnicity[d]			
Asian/Other	9,437	n/a	n/a
Black/African American	28,243	460,807	6.1
Hispanic/Latino	33,503	319,962	10.5
White	147,454	332,748	44.3
Total	**219,691**	**1,206,662**	**18.2**

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

[a] Estimated using 2018 data from IQVIA pharmacy database.Data for which values are unknown were not reported thus values may not sum to column total.

[b] Estimated using 2018 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, and U.S Census Bureau's American Community Survey. Data for which values are unknown were not reported thus values may not sum to column total.

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

[d] Race/ethnicity data were only available for <40% of persons prescribed PrEP in 2018. Number prescribed PrEP and PrEP coverage for race/ethnicity reported in the table were adjusted applying the distribution of records with known race/ethnicity to records with missing race/ethnicity.

Table 3b. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018, among persons aged ≥16 years, by area of residence—United States and Puerto Rico

Area of residence	Persons prescribed PrEP[a] No.	Persons with PrEP indications[b] No.	PrEP coverage[c] %
Alabama	1,513	11,049	13.7
Alaska	189	1,966	9.6
Arizona	3,521	25,487	13.8
Arkansas	611	5,060	12.1
California	36,272	164,148	22.1
Colorado	3,428	25,229	13.6
Connecticut	2,292	9,189	24.9
Delaware	402	4,355	9.2
District of Columbia	5,014	12,830	39.1
Florida	13,623	125,880	10.8
Georgia	6,154	38,868	15.8
Hawaii	668	4,417	15.1
Idaho	377	4,733	8.0
Illinois	14,438	55,092	26.2
Indiana	2,170	22,303	9.7
Iowa	1,184	4,735	25.0
Kansas	759	5,034	15.1
Kentucky	1,231	13,237	9.3
Louisiana	3,468	15,610	22.2
Maine	390	3,569	10.9
Maryland	4,008	26,683	15.0
Massachusetts	8,195	24,738	33.1
Michigan	3,453	29,141	11.8
Minnesota	3,542	21,194	16.7
Mississippi	654	4,470	14.6
Missouri	2,781	18,230	15.3
Montana	173	2,290	7.6
Nebraska	487	2,179	22.3
Nevada	1,477	11,341	13.0
New Hampshire	497	2,014	24.7
New Jersey	4,652	25,467	18.3
New Mexico	790	6,835	11.6
New York	30,572	73,346	41.7
North Carolina	3,682	32,390	11.4
North Dakota	166	1,516	10.9
Ohio	4,715	40,347	11.7
Oklahoma	827	11,162	7.4
Oregon	2,753	20,154	13.7
Pennsylvania	8,402	36,012	23.3
Puerto Rico	225	9,931	2.3
Rhode Island	842	3,852	21.9
South Carolina	1,198	10,329	11.6
South Dakota	106	934	11.3
Tennessee	2,602	22,008	11.8
Texas	17,628	123,350	14.3
Utah	1,496	6,768	22.1
Vermont	264	1,136	23.2
Virginia	3,177	31,192	10.2
Washington	8,798	39,199	22.4
West Virginia	358	4,961	7.2
Wisconsin	2,017	12,779	15.8
Wyoming	70	888	7.9

Abbreviation: PrEP, preexposure prophylaxis.

Note. Total number prescribed PrEP included persons from the United States and Puerto Rico and 1,605 with unknown ZIP codes.

[a] Estimated using 2018 data from IQVIA pharmacy database.

[b] Estimated using 2018 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, U.S Census Bureau's American Community Survey, and Puerto Rico Community Survey.

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

Table 3c. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018, among persons aged ≥16 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons prescribed PrEP[a] No.	Persons with PrEP indications[b] No.	PrEP coverage[c] %
Arizona			
Maricopa County	2,860	13,770	20.8
California			
Alameda County	1,844	6,142	30.0
Los Angeles County	12,121	35,749	33.9
Orange County	1,607	10,633	15.1
Riverside County	1,287	11,179	11.5
Sacramento County	740	4,352	17.0
San Bernardino County	579	11,671	5.0
San Diego County	3,347	11,397	29.4
San Francisco County	8,121	10,844	74.9
District of Columbia	5,014	12,830	39.1
Florida			
Broward County	2,701	10,091	26.8
Duval County	365	4,243	8.6
Hillsborough County	751	12,965	5.8
Miami-Dade County	3,801	21,885	17.4
Orange County	1,711	15,452	11.1
Palm Beach County	555	3,909	14.2
Pinellas County	704	9,562	7.4
Georgia			
Cobb County	375	2,360	15.9
DeKalb County	1,159	4,227	27.4
Fulton County	2,502	11,073	22.6
Gwinnett County	449	2,141	21.0
Illinois			
Cook County	11,897	38,671	30.8
Indiana			
Marion County	836	4,998	16.7
Louisiana			
East Baton Rouge Parish	441	689	64.0
Orleans Parish	1,399	4,459	31.4
Maryland			
Baltimore City	548	3,200	17.1
Montgomery County	803	2,782	28.9
Prince George's County	658	1,981	33.2
Massachusetts			
Suffolk County	2,628	6,500	40.4
Michigan			
Wayne County	982	6,183	15.9
Nevada			
Clark County	1,251	7,433	16.8
New Jersey			
Essex County	628	1,991	31.5
Hudson County	867	2,958	29.3

Table 3c. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018, among persons aged ≥16 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions *(cont)*

Area of residence	Persons prescribed PrEP[a] No.	Persons with PrEP indications[b] No.	PrEP coverage[c] %
New York			
Bronx County	1,998	5,667	35.3
Kings County	6,249	13,696	45.6
New York County	12,661	11,770	107.6
Queens County	3,342	6,456	51.8
North Carolina			
Mecklenburg County	894	8,375	10.7
Ohio			
Cuyahoga County	805	5,799	13.9
Franklin County	1,588	11,982	13.3
Hamilton County	442	7,561	5.8
Pennsylvania			
Philadelphia County	3,143	4,854	64.8
Puerto Rico			
San Juan Municipio	—[d]	1,950	N/A
Tennessee			
Shelby County	469	6,328	7.4
Texas			
Bexar County	1,054	12,106	8.7
Dallas County	3,172	16,586	19.1
Harris County	3,987	22,080	18.1
Tarrant County	1,187	11,273	10.5
Travis County	3,438	11,498	29.9
Washington			
King County	6,140	8,407	73.0

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

[a] Estimated using 2018 data from IQVIA pharmacy database.

[b] Estimated using 2018 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, U.S Census Bureau's American Community Survey, and Puerto Rico Community Survey.

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

[d] Data value <40 was not reported due to unreliability.

Table 3d. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2017, among persons aged ≥16 years—Puerto Rico

	Persons prescribed PrEP[a]	Persons with PrEP indications[b]	PrEP coverage[c]
Area of residence	**No.**	**No.**	**%**
Puerto Rico	116	9,931	1.2
San Juan Municipio	—[d]	1,950	n/a

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

Note. PrEP coverage for 2017 for the 50 states and the District of Columbia can be found at https://www.cdc.gov/hiv/library/reports/ehe-core-indicators/index.html.

[a] Estimated using 2017 data from IQVIA pharmacy database.

[b] Estimated using data from National HIV Surveillance System, National Health and Nutrition Examination Survey, U.S Census Bureau's American Community Survey, and Puerto Rico Community Survey.

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

[d] Data value <40 was not reported due to unreliability.