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



Selected National HIV Prevention and Care Outcomes

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- Used to gauge progress towards national HIV prevention and care goals and direct resources most effectively
- Monitor steps required from the time a person receives an HIV diagnosis to achieving viral suppression:
 - Diagnosis of HIV infection
 - Linked to care
 - Receipt of care
 - Retained in care
 - Virally suppressed



National Indicators

- Represents the best available data for measuring progress
- Uses National HIV Surveillance System (NHSS) data
 - Timely and routine
 - Can stratify by demographic characteristics
 - Allow states the ability to monitor their progress toward national goals in their jurisdictions using prioritized data sources available at the state level
- Uses different denominators for each measure



Calculation of Indicators

- The following indicators only use data from areas with complete reporting of CD4 and viral load test results to CDC (41 states and the District of Columbia):
 - Linkage to care (within 1 month)
 - Receipt of care
 - Retention in care
 - Viral suppression



Calculation of Indicators

- Linkage to care
 - Numerator: Persons aged ≥13 years with HIV diagnosed during 2017 and who had ≥1 viral load (VL) or CD4 test within 1 month of HIV diagnosis
 - Denominator: Persons aged ≥13 years with HIV infection diagnosed during 2017 (41 states and the District of Columbia)

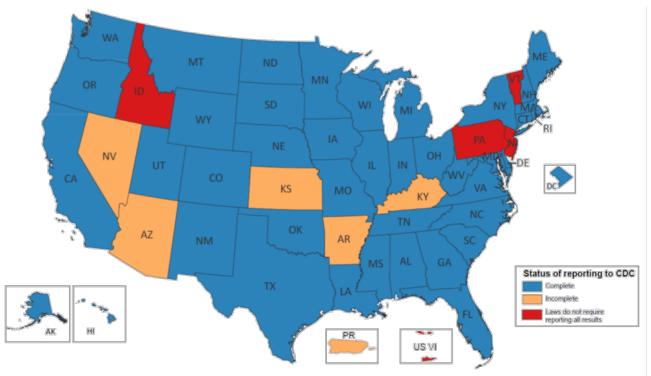


Calculation of Indicators

- Receipt of care, Retention in care, Viral suppression
 - Numerator:
 - Receipt of care: Persons with ≥1 test (CD4 or VL) in 2016
 - Retention in care: Persons with ≥2 tests (CD4 or VL) ≥3 months apart in 2016
 - Viral suppression: Persons with <200 copies/mL on their most recent VL test in 2016
 - Denominator: Persons aged ≥13 years with HIV diagnosed by the end of
 2015 and alive at year-end 2016 (41 states and the District of Columbia)



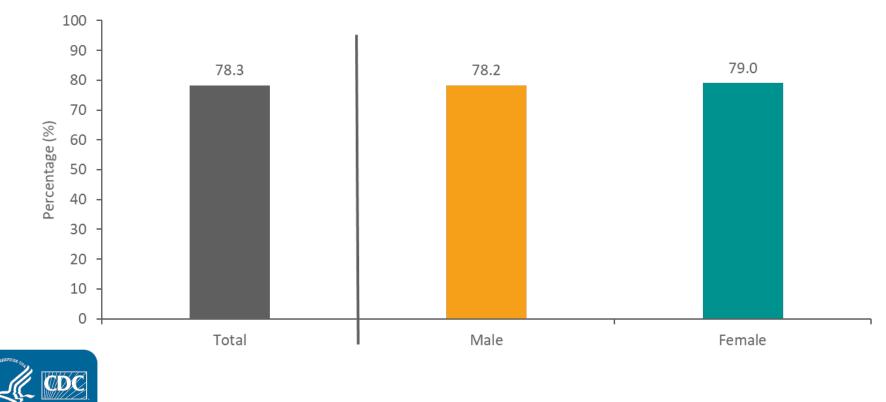
HIV Surveillance Reporting Areas with Complete Reporting of CD4 and Viral Load Test Results to CDC, as of December 2018





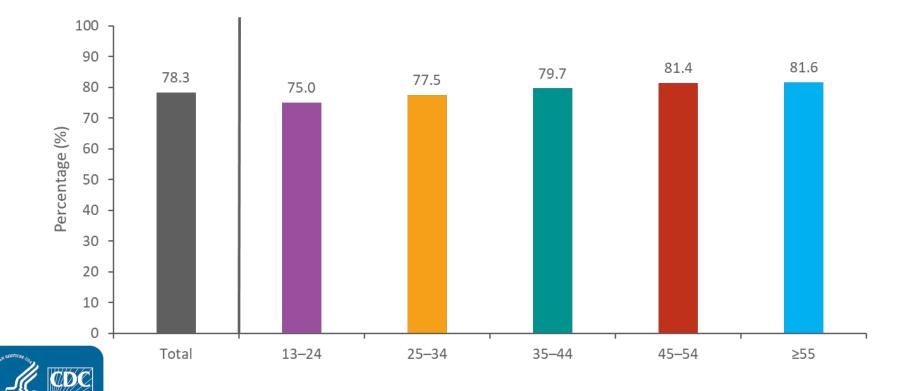
Note. Complete reporting was defined as: The jurisdiction's laws/regulations required the reporting of all CD4 and viral load results to the state or local health department. Laboratories that perform HIV-related testing for the jurisdiction had reported a minimum of 95% of HIV-related test results to the state or local health department. As of December 31, 2018, the jurisdiction had reported (to CDC) at least 95% of all CD4 and viral load test results received from January 2016 through September 2018.

Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2017, among Persons Aged ≥13 Years, by Sex—41 States and the District of Columbia



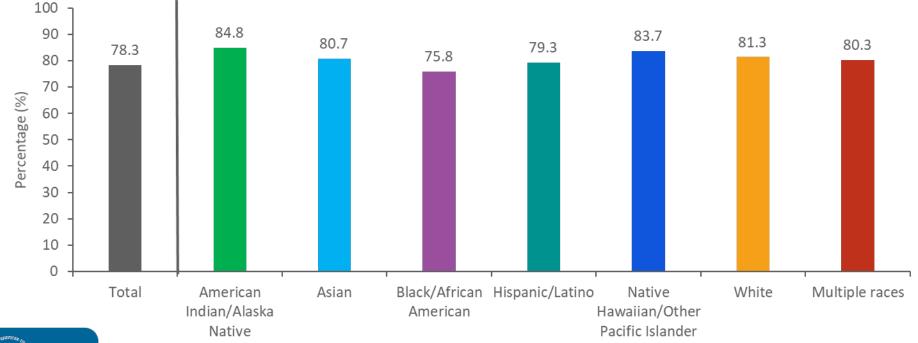
Note. Linkage to HIV medical care was defined as having a CD4 or VL test ≤1 month after HIV diagnosis.

Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2017, among Persons Aged ≥13 Years, by Age—41 States and the District of Columbia



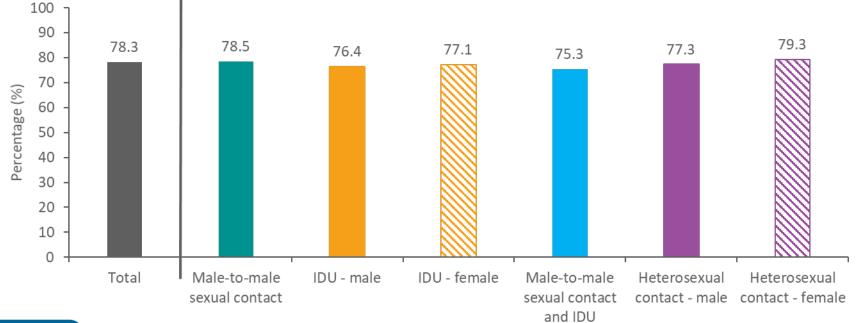
Note. Linkage to HIV medical care was defined as having a CD4 or VL test ≤1 month after HIV diagnosis.

Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2017, among Persons Aged ≥13 Years, by Race/Ethnicity—41 States and the District of Columbia



Note. Linkage to HIV medical care was defined as having a CD4 or VL test ≤1 month after HIV diagnosis. Hispanics/Latinos can be of any race.

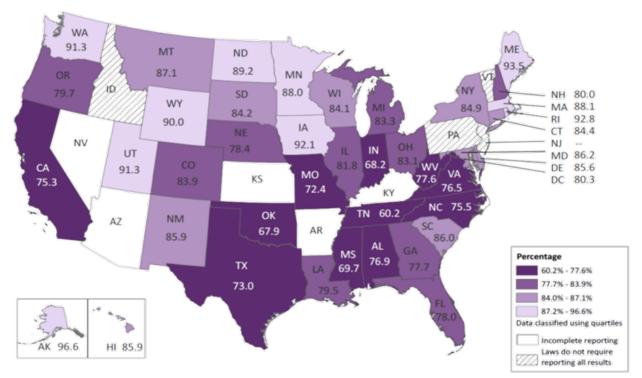
Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2017, among Persons Aged ≥13 Years, by Transmission Category—41 States and the District of Columbia





Note. Linkage to HIV medical care was defined as having a CD4 or VL test ≤1 month after HIV diagnosis. Heterosexual contact is with a person known to have, or be at high risk for, HIV infection. IDU, injection drug use

Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2017, among Persons Aged ≥13 Years—41 States and the District of Columbia

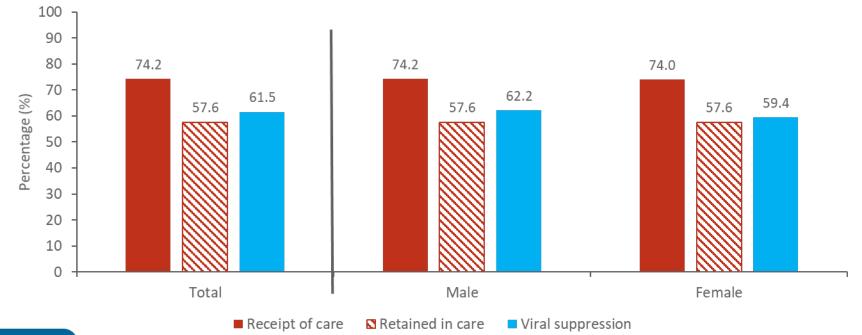


Total = 78.3%



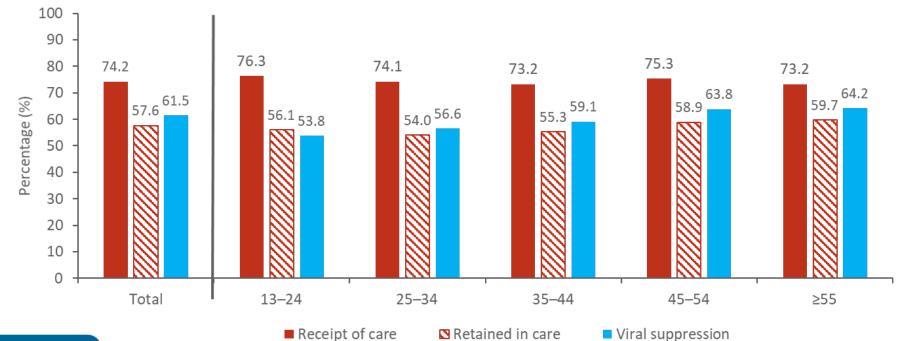
Note. Linkage to HIV medical care was defined as having a CD4 or VL test ≤1 month after HIV diagnosis. Residence was based on residence at diagnosis.

Receipt of HIV Medical Care, Retention in care, and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Sex 2016—41 States and the District of Columbia

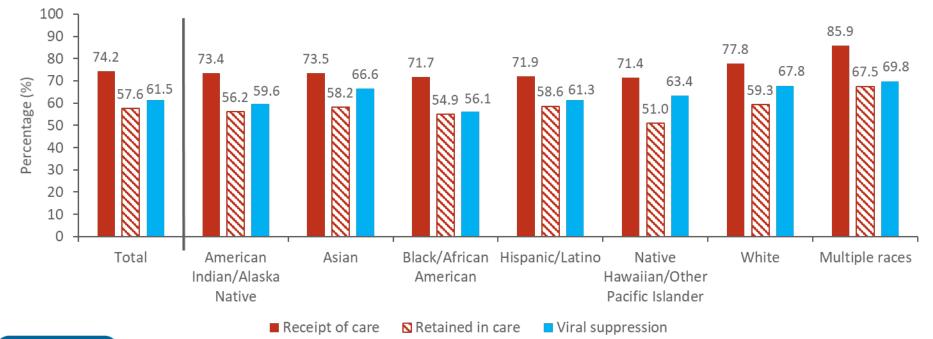




Receipt of HIV Medical Care, Retention in care, and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Age 2016—41 States and the District of Columbia



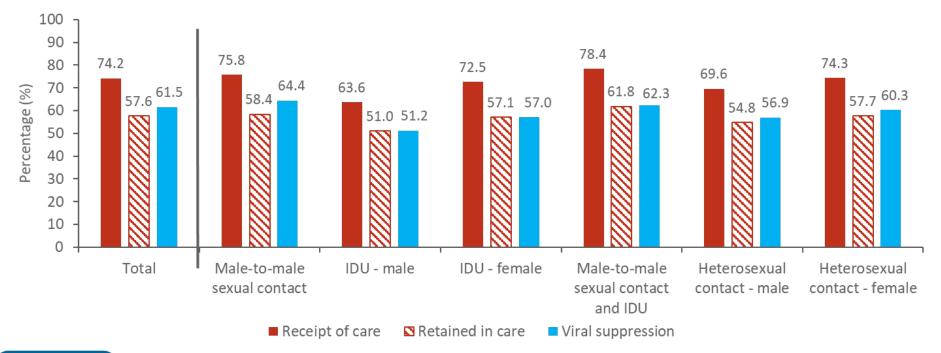
Receipt of HIV Medical Care, Retention in Care, and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Race/Ethnicity 2016—41 States and the District of Columbia





Note. Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in continuous medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2016. Asian includes Asian/Pacific Islander legacy cases. Hispanics/Latinos can be of any race.

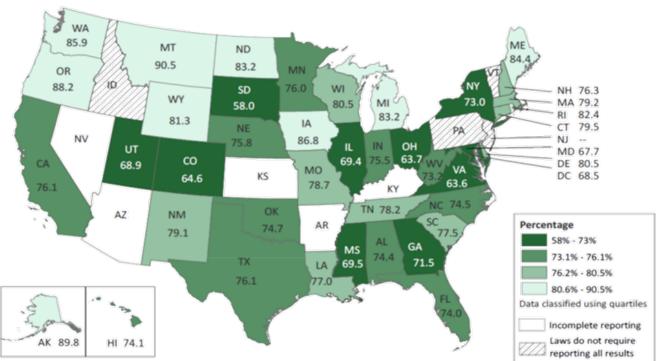
Receipt of HIV Medical Care, Retention in Care, and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Transmission Category, 2016—41 States and the District of Columbia





Note. Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in continuous medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2016. Heterosexual contact is with a person known to have, or be at high risk for, HIV infection. IDU, injection drug use

Receipt of HIV Medical Care among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, 2016—41 States and the District of Columbia

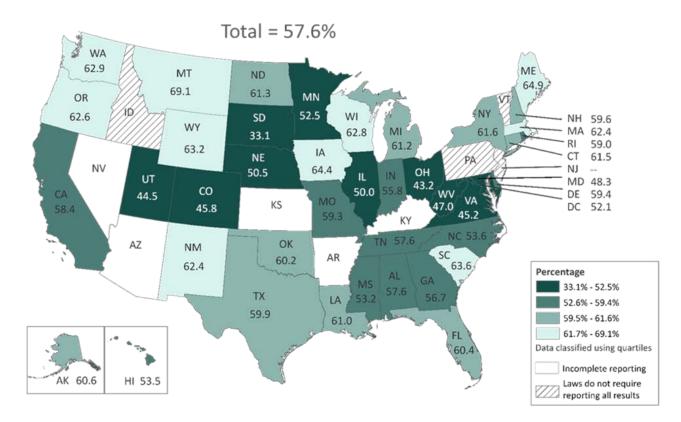


Total = 74.2%



Note. Receipt of HIV medical care was defined as ≥1 test (CD4 or VL) in 2016. Residence was based on most recent known address as of year-end 2016.

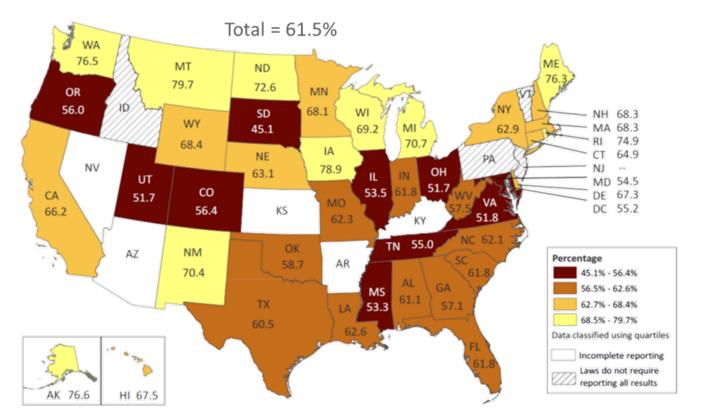
Retention in HIV Medical Care among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, 2016—41 States and the District of Columbia





Note. Retained in continuous medical care was defined as \geq 2 tests (CD4 or VL) \geq 3 months apart in 2016. Residence was based on most recent known address as of year-end 2016.

Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, 2016—41 States and the District of Columbia





Note. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2016. Residence was based on most recent known address as of year-end 2016.

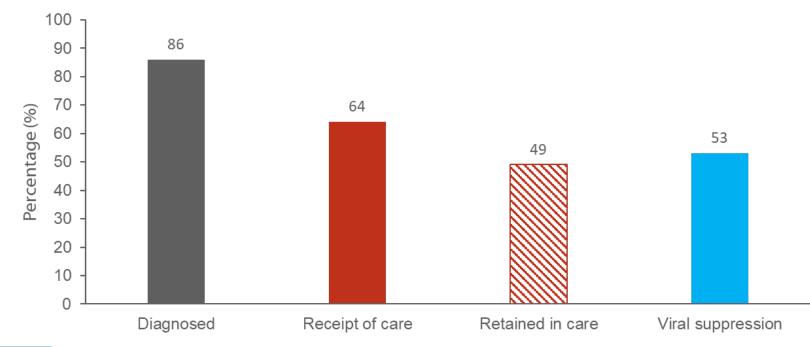
Prevalence-Based Care Continuum

- Describes the number of people at each step of the continuum as a percentage of the total number of people living with HIV (diagnosed or undiagnosed)
- Denominator: Estimated number of persons aged ≥13 years living with diagnosed or undiagnosed HIV infection year-end 2016
 - Calculated using the first CD4 test after HIV diagnosis and a CD4 depletion model indicating disease progression*
- Numerator: Extrapolated from the 42 jurisdictions with complete CD4 and viral load reporting
 - Apply percentage from 42 jurisdictions to the total number of people living with diagnosed HIV in the United States



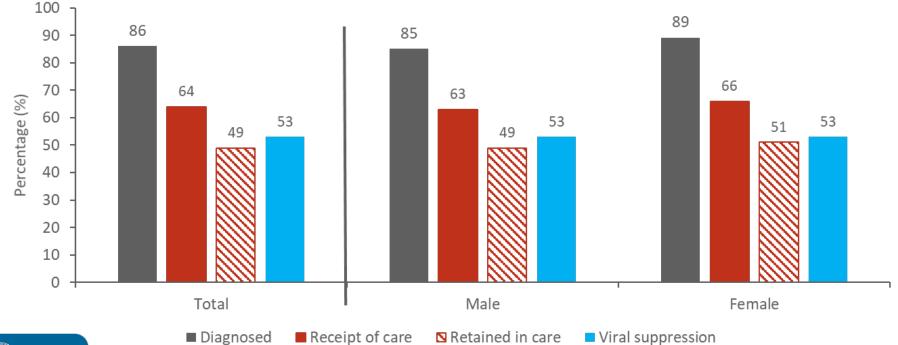
* Song R, Hall HI, Green TA, Szwarcwald CL, Pantazis N. Using CD4 data to estimate HIV incidence, prevalence, and percent of undiagnosed infections in the United States. J Acquir Immune Defic Syndr 2017;74(1):3–9. doi:10.1097/QAI.00000000001151.

Persons Living with Diagnosed or Undiagnosed HIV Infection HIV Care Continuum Outcomes, 2016—United States



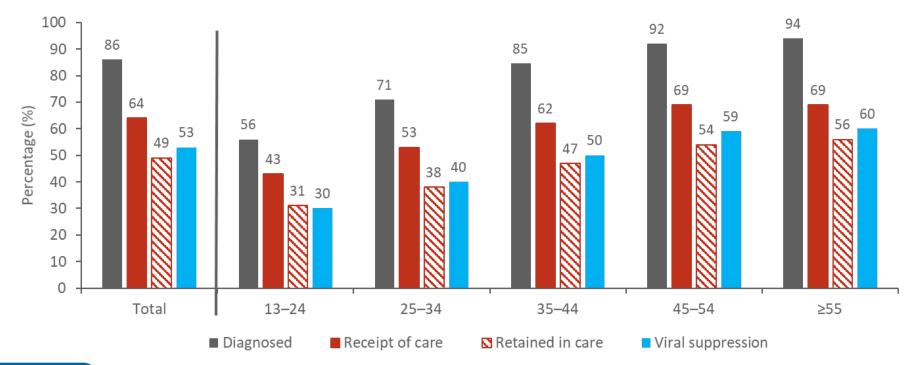


Persons Living with Diagnosed or Undiagnosed HIV Infection HIV Care Continuum Outcomes, by Sex, 2016—United States



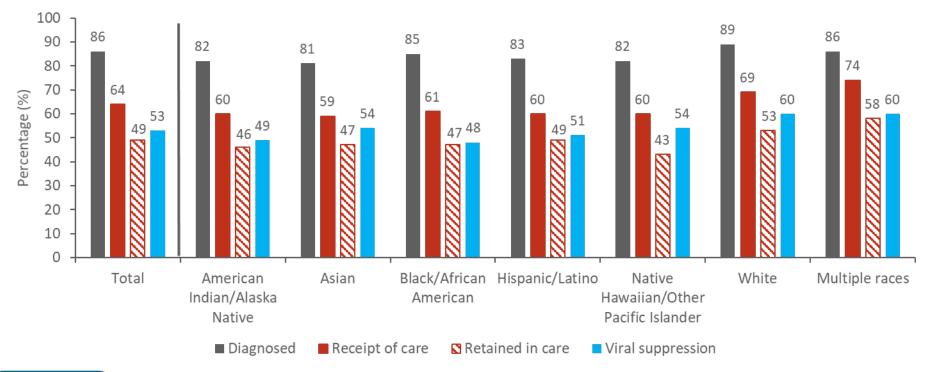


Persons Living with Diagnosed or Undiagnosed HIV Infection HIV Care Continuum Outcomes, by Age, 2016—United States





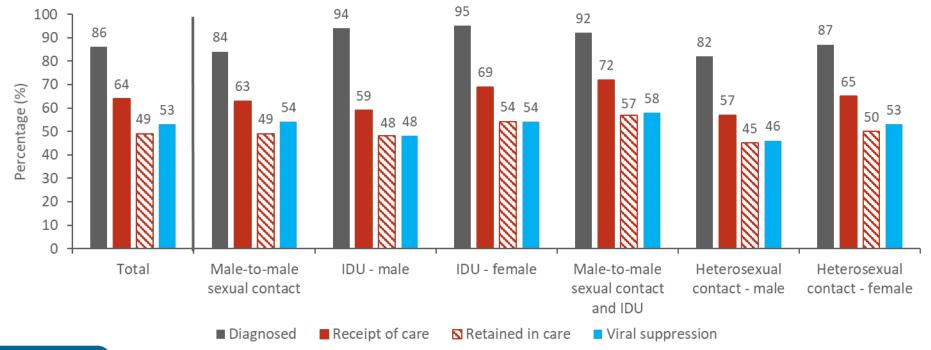
Persons Living with Diagnosed or Undiagnosed HIV Infection HIV Care Continuum Outcomes, by Race/Ethnicity, 2016—United States





Note. Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in continuous medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2016. Asian includes Asian/Pacific Islander legacy cases. Hispanics/Latinos can be of any race.

Persons Living with Diagnosed or Undiagnosed HIV Infection HIV Care Continuum Outcomes, by Transmission Category, 2016—United States





Note. Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in continuous medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2016. Heterosexual contact is with a person known to have, or be at high risk for, HIV infection. IDU, injection drug use