

# Selected National HIV Prevention and Care Outcomes in the United States

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Viral suppression is the ultimate goal of HIV treatment as it supports people living with HIV to stay healthy and live longer, and reduces the chances of passing HIV to others. By ensuring that everyone with HIV is aware of their infection and receiving the treatment they need, we can sharply reduce new infections and thereby reduce new HIV diagnoses in the United States.

The “Selected National HIV Prevention and Care Outcomes” are indicators which are used to monitor progress toward national goals in the United States. Because the bars use different denominators, the data are presented as separate bar charts.

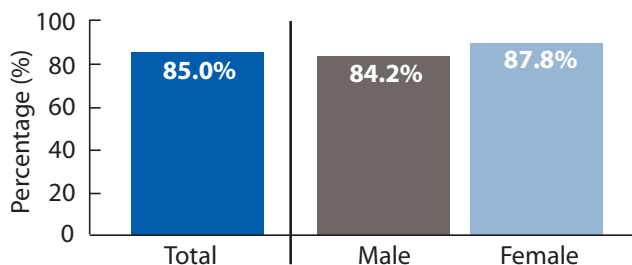
## National HIV Indicators

There are 13 indicators to track progress towards national HIV prevention and care goals. Several specific indicators related to HIV diagnosis, effective care and treatment include:

- Knowledge of HIV serostatus (i.e., diagnosed HIV infection)
- Linkage to HIV medical care
- Retention in HIV medical care
- Viral Suppression

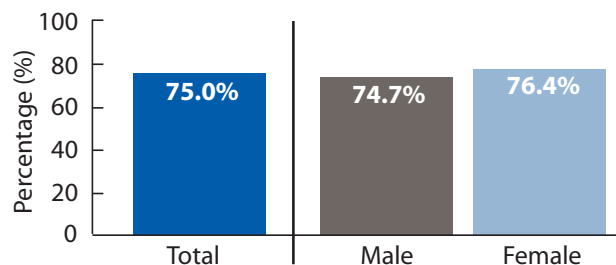
## Selected National HIV Prevention and Care Outcomes, United States

**Diagnosed Infection among Persons Aged ≥13 Years Living with Diagnosed or Undiagnosed HIV Infection, by Sex, 2014 – United States**



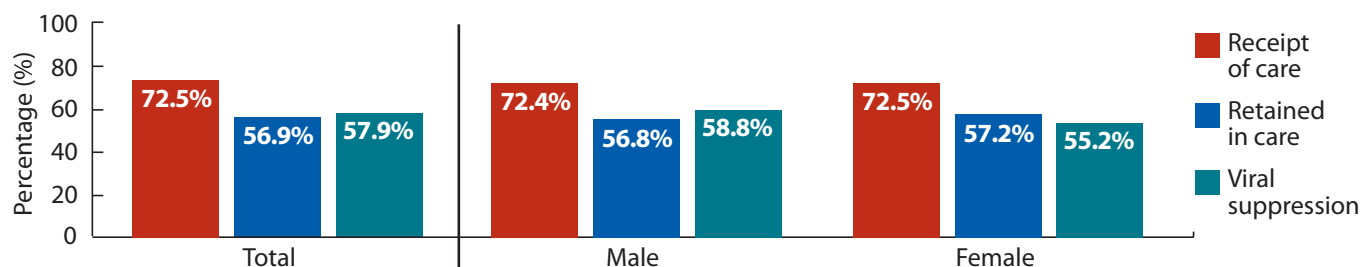
Note. Estimates were derived using HIV surveillance data for persons aged ≥13 years at diagnosis in the 50 states and the District of Columbia.

**Linkage to HIV Medical Care within 1 Month after HIV Diagnosis during 2015, among Persons Aged ≥13 Years, by Sex – 37 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.

**Receipt of HIV Medical Care, Retention in Care, and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Sex, 2014 – 37 States and the District of Columbia**



Note. Receipt of medical care was defined as ≥1 test (CD4 or VL) in 2014. Retained in continuous medical care was defined as ≥2 tests (CD4 or VL) ≥3 months apart in 2014. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2014.

The data source for the “Select HIV Care Outcomes” is the National HIV Surveillance System (NHSS). NHSS provides a range of information on people who received a diagnosis in a particular year, live with diagnosed HIV or have died with HIV (also by demographic characteristics). The data are reported to CDC by state and local health departments. The most recent data on linkage to care, retention in care, and viral suppression are from 38 jurisdictions [37 states and the District of Columbia (D.C.)] that have complete lab reporting, and these jurisdictions represent 72% of persons living with diagnosed HIV in the U.S.

Diagnosed HIV infection in the United States is measured as the percentage of persons living with diagnosed HIV among the estimated number of persons living with diagnosed or undiagnosed HIV infection at year-end 2014. The denominator is all persons living with HIV (includes diagnosed or undiagnosed HIV and is estimated through modeling). Linkage to care within 1 month (2015), retention in care (2014), and viral suppression (2014) are based on data from 38 jurisdictions with complete reporting of CD4 and viral load test results to CDC (37 states and D.C.). Persons are assigned to the 38 jurisdictions based on residence at diagnosis for linkage to care and on the most recent known address for retention and viral suppression. For additional details on how these outcomes are calculated, see Table 1.

## How Selected National HIV Care Outcomes are Used to Monitor Progress and Identify Needs

The outcomes are defined using national indicator definitions. At the national level, these data are used to inform decisions about how to best prioritize and target available resources, and to monitor progress toward meeting national goals. Because NHSS data are available at the state and local levels, the national level indicators were defined in a way that allows states to use their data to track progress over time and identify where improvements are needed.

Ways of presenting HIV care outcomes will continue to evolve over time as better and more complete data become available. For more information on data used to monitor outcomes, refer to “Monitoring Selected National HIV Prevention and Care Objectives by Using HIV Surveillance Data, United States and 6 Dependent Areas – 2015” (<https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-22-2.pdf>).

### Importance of Complete Laboratory Reporting

Measuring progress toward national HIV prevention and care goals relies on laboratory reporting of HIV-related tests to the local and national HIV surveillance systems. CDC recommends reporting of all HIV-related test results, including CD4+ T-lymphocyte (CD4) results and all viral load test results. This comprehensive laboratory reporting recommendation is in alignment with the Council of State and Territorial Epidemiologists’ (CSTE) position (ID:2001-ID-03). Laboratory data, including CD4 and viral load test results, are an essential component of the National HIV Surveillance System (NHSS) as they can be used to identify cases, classify stage of disease at diagnosis, and monitor disease progression. These data can be used to evaluate HIV testing and prevention efforts, determine entry into care and retention in care, and measure viral load suppression.

**Table 1. Selected National HIV Prevention and Care Outcomes**

Continuum Step	
<b>Diagnosed</b>	<p>Measures the percentage of the total number of people living with HIV whose infection has been diagnosed.</p> <p>The denominator for this continuum step is HIV prevalence, which is the total number of people living with HIV (includes both those with diagnosed infection and those with undiagnosed infection). HIV prevalence is estimated through statistical modeling using NHSS data from all U.S. states and the District of Columbia.</p>
<b>Receipt of care</b>	<p>NHSS data from states and D.C. with complete reporting of CD4 and viral load test results are used to estimate “receipt of care” and “retained in care.”</p> <p>Receipt of care is measured as the percentage of persons with diagnosed HIV who had at least 1 CD4+ or viral load test.</p> <p>The denominator for the prevalence-based continuum is all persons living with HIV (HIV prevalence). The denominator for the diagnosis-based continuum is all persons living with diagnosed HIV (diagnosed prevalence*).</p>
<b>Retained in Care</b>	<p>NHSS data from states and D.C. with complete reporting of CD4 and viral load test results are used to estimate “receipt of care” and “retained in care.”</p> <p>Retained in care is measured as the percentage of persons with diagnosed HIV who had two or more viral load or CD4+ tests, performed at least three months apart.</p> <p>The denominator for the prevalence-based continuum is all persons living with HIV (HIV prevalence). The denominator for the diagnosis-based continuum is all persons living with diagnosed HIV (diagnosed prevalence*).</p>
<b>Viral Suppression</b>	<p>NHSS data from states and D.C. that have complete laboratory reporting are used to determine viral suppression.</p> <p>The denominator for the prevalence-based continuum is all persons living with HIV (HIV prevalence). The denominator for the diagnosis-based continuum is all persons living with diagnosed HIV (diagnosed prevalence*).</p>
<b>Linked to Care</b>	<p>NHSS data from states and D.C. with complete reporting of CD4 and viral load test results are used to determine “linked to care.”</p> <p>Linked to care measures the percentage of people <i>receiving a diagnosis of HIV in a given calendar year</i> who had one or more documented viral load or CD4+ test <i>within 30 days (1 month) of diagnosis</i>.</p> <p>Because this measure is limited to people with HIV diagnosed only in a single year, it cannot be directly compared to other steps in the continuum. This means that the denominator for linkage to care is different from the denominators used to calculate the other steps in the continuum. It is also important to note that an individual who enters care more than 30 days after diagnosis may still be included in subsequent steps of the continuum, but would not be counted as “linked to care.”</p>

\*Diagnosed prevalence is defined as the number of persons diagnosed with HIV through the end of one year and are living through the end of the next year (e.g., diagnosed prevalence for 2014 is defined as persons receiving a diagnosis of HIV in 2013 and living through the end of 2014.)