

# **NATIONAL HIV/AIDS STRATEGY** for the **UNITED STATES:**

UPDATED TO 2020

**INDICATOR SUPPLEMENT**

DECEMBER 2016





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# INTRODUCTION

The National HIV/AIDS Strategy: Updated to 2020 (Strategy) includes indicators to monitor annual progress toward achieving the goals of the Strategy. This Indicator Supplement is a companion document to the Strategy. It provides a summary of progress and detailed information on the specification of each indicator.

With this update to the Indicator Supplement, we added three new, developmental indicators: viral suppression among transgender women in HIV medical care, use of pre-exposure prophylaxis (PrEP), and HIV stigma. These are considered “developmental” indicators because work to define the indicators and data sets will continue over the next few years and the indicators may change as additional or different data become available.

Each year, the Centers for Disease Control and Prevention (CDC) produces a report that includes the annual data for most of the Strategy’s indicators.<sup>1</sup> Data for Indicator 11 are included in a report produced by the Health Resources and Services Administration (HRSA) based on the Ryan White HIV/AIDS Program Service Report (RSR) data.<sup>2</sup> The White House Office of National AIDS Policy has the responsibility for assessing the annual indicator data against the annual targets for each indicator to report on progress toward the 2020 indicator targets.

The Indicator Supplement includes a “Progress Report” section with a graphic illustrating overall progress, a narrative description of progress, and a detailed data table showing progress for each indicator. Progress was assessed by comparing the most recent year of data to the annual target for that year. For some indicators, preliminary data are shown in the table to provide a sense for future trends, but progress is assessed for the year prior. Assessments of progress are based on meeting the annual target or not; statistical tests of trends or differences were not conducted. Only baseline data are available for the developmental indicators for use of PrEP and HIV stigma so progress is not assessed.

The “Indicator Specification” section describes how each indicator is calculated. Additional information about the methods, data systems, and results are available in the references cited for each indicator. Readers should be mindful of updates to the calculations of some indicators, described more fully in the CDC and HRSA data reports.

1 Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016; 21(No. 4). [www.cdc.gov/hiv/library/reports/surveillance/](http://www.cdc.gov/hiv/library/reports/surveillance/). Published July 2016.

2 Health Resources and Services Administration. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2015. <http://hab.hrsa.gov/data/data-reports>. Published December 2016.

# NATIONAL HIV/AIDS STRATEGY MONITORING OUR PROGRESS

## GOAL 1: REDUCING NEW HIV INFECTIONS

- ✓ Increase knowledge of serostatus
- ✓ Reduce new diagnoses
- ✗ Reduce HIV-risk behaviors among young gay and bisexual males

## GOAL 3: REDUCING HIV-RELATED DISPARITIES

Reduce disparities in HIV diagnosis among:

- ✗ Gay and bisexual men
- ✗ Young Black gay and bisexual men
- ✓ Black females
- ✗ Persons living in the Southern US

Increase viral suppression among:

- ✓ Youth
- ✓ Persons who inject drugs

## GOAL 2: IMPROVING HEALTH OUTCOMES FOR PEOPLE LIVING WITH HIV

- ✓ Increase linkage to care
- ↗ Increase retention in HIV care
- ✓ Increase viral suppression
- ✗ Reduce homelessness
- ✓ Reduce death rate

## DEVELOPMENTAL INDICATORS

- ✓ Increase viral suppression among transgender women
- Increase use of PrEP
- Decrease stigma

✓ ANNUAL TARGET MET

↗ ANNUAL TARGET NOT MET  
(Progress in the expected direction)

✗ ANNUAL TARGET NOT MET  
(Moving in the wrong direction)

○ NO PROGRESS DATA YET

# PROGRESS REPORT

The most recent indicator data show that overall progress is being made in the fight against HIV, nationally and in key groups, including Black women, transgender women, youth, and people who inject drugs. The data also show that we are not seeing progress on some indicators and that the disparities are widening for gay and bisexual men.

Since the 2010 baseline year, there has been progress across three goals of the Strategy: reducing new infections, improving health outcomes among people living with HIV, and reducing HIV-related disparities. Of the 17 total indicator measures, targets for the most recent year were met for 9 indicators. Progress was observed for one additional indicator (retention in HIV medical care), but the target was not met. Two of the developmental indicators—use of PrEP and HIV stigma—only have baseline data available so progress was not assessed.

Notably, there were improvements in most indicators:

- New HIV diagnoses decreased by 7 percent from 2010 to 2013.
- The death rate dropped by about 30 percent.
- Knowledge of serostatus, linkage to care, and viral suppression all increased.
- Disparities in HIV diagnoses for Black females decreased.
- Viral suppression increased among youth, people who inject drugs, and transgender women.

However, we are not seeing progress on some indicators. Targets for the most recent year were not met for 5 indicators.

- Although diagnoses dropped overall, progress in reducing the diagnosis disparity in the Southern United States stalled.
- Homelessness among persons with HIV continued to inch upward.
- Among gay and bisexual men, 3 indicators measuring disparities in new diagnoses (overall and among young Black gay and bisexual men) and HIV-risk behaviors showed increases, rather than the expected decreases from the baseline.

These data show that considerable progress is being made, but that all groups have not benefitted equally. We still have more progress to make in order to achieve the goals of the National HIV/AIDS Strategy by 2020.

Indicators are used to assess progress toward those goals, and annual progress assessments are designed to drive action by Federal, State, Tribal, and local agencies, organizations, and communities. Many new programs were initiated and existing programs were refined between 2013 (the year for which progress was assessed on most indicators) and 2016. Together, we have worked to deploy new scientific findings quickly and to use programmatic lessons learned in communities across the country to guide our efforts. We have worked diligently to scale up access to effective HIV prevention tools and high quality HIV medical care. Even with these accomplishments, much more work remains to be done and we must rise to meet the challenges ahead. We have the momentum from implementing the Strategy since 2010 to continue moving forward; reaching our 2020 goals demands continued focus and determination.

The Strategy's Federal Action Plan delineates actions for 2016 through 2020, including actions focusing on gay and bisexual men and persons living in the Southern United States, and actions addressing housing for people living with HIV. The Strategy's Community Action Plan Framework similarly serves as a guide for agencies, organizations, educational and health care delivery systems, and other groups to align their actions to achieve the goals of the Strategy. They can also use the Framework to address specific areas where the indicators suggest more effort and additional action are needed.

With the Strategy serving as our roadmap, we must not let up on our efforts until we achieve our nation's goals. If we let up in areas where we are seeing progress, we risk the possibility that our hard-won gains will be eroded over time. For indicators that did not meet their annual target, we must look carefully at the data and our actions. In some cases, it may be that current approaches are working but they have not been implemented at the right scale. In other cases, we may need to determine whether we are reaching the right people or delivering prevention and care services with the frequency or intensity that is needed to produce widespread change. And for some indicators, we may need to reconsider whether the most effective strategies are being employed and whether we need to change what we are doing or how we are doing it. The National HIV/AIDS Strategy Federal Interagency Workgroup has convened ad hoc workgroups to make these assessments and recommendations for moving forward. It is only by working together, monitoring our annual progress, and continuing to improve our prevention and care efforts that we will be able to achieve these goals. We must not lessen our ambitions—make our targets less bold—but rather accelerate progress by scaling up our efforts and seizing new opportunities.

## INDICATOR 1

Increase the percentage of people living with HIV who know their serostatus to at least 90 percent, from the baseline of 85.9 percent.

**PROGRESS:** In 2013, 87 percent of people living with HIV knew their serostatus. This result represents continued improvement and exceeded the annual target (86.5 percent).

## INDICATOR 2

Reduce the number of new diagnoses by at least 25 percent, from 43,806 at baseline to 32,855.

**PROGRESS:** In 2013, there were 40,628 new HIV diagnoses. This result was lower than the annual target (42,163), and exceeded expected progress in reducing the number of new diagnoses. Preliminary data for 2014 indicate that continued declines may be expected.

Diagnosis trends must be considered in the context of HIV testing trends. Data used to monitor trends in HIV testing come from the Behavioral Risk Factor Surveillance System. Although a statistically significant increase in testing during 2011-2013 was seen, the amount of increase was small (from 42.9 percent ever tested to 43.5 percent).<sup>3</sup>

Taken together, decreases in HIV diagnoses in the context of a slight increase in testing is encouraging. Additional years of diagnosis data and additional analyses about testing trends in high risk populations are needed to conclusively determine the extent to which these trends truly reflect declining incidence in the United States.

## INDICATOR 3

Reduce the percentage of young gay and bisexual males who have engaged in HIV-risk behaviors by at least 10 percent, from the baseline of 34.1 percent.

**PROGRESS:** About one-third (35.2 percent) of young gay and bisexual male high school students had engaged in HIV-risk behaviors in 2015. This result did not meet the annual target (33.3 percent) and showed an increase from the 2013 baseline, rather than the expected decrease.

## INDICATOR 4

Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least 85 percent, from the baseline of 70.2 percent.

**PROGRESS:** About three in four (74.5 percent) persons newly diagnosed with HIV in 2014 were linked to HIV medical care within one month of diagnosis. This result exceeded the annual target (73.9 percent).

## INDICATOR 5

Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90 percent, from the baseline of 54.7 percent.

<sup>3</sup> Van Handel MM, Branson BM (2015) Monitoring HIV Testing in the United States: Consequences of Methodology Changes to National Survey. PLoS ONE 10(4): E0126537. DOI:10.1371/journal.pone.0125637.



**PROGRESS:** More than half (56.5 percent) of persons with diagnosed HIV infection were retained in HIV medical care in 2013. This result did not meet the annual target (60.0 percent), suggesting that additional effort is needed in order to reach this goal. The percentage retained in care in 2013 was higher than the baseline level of 54.7 percent, indicating progress in the right direction.

## INDICATOR 6

Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80 percent, from the baseline of 46.0 percent.

**PROGRESS:** More than half (54.7 percent) of persons with diagnosed HIV infection were virally suppressed in 2013. This result exceeded the annual target (51.1 percent).

## INDICATOR 7

Reduce the percentage of persons in HIV medical care who are homeless to no more than 5 percent, from the baseline of 7.7 percent.

**PROGRESS:** Of persons in HIV medical care, 9.0 percent were homeless in 2014. This result did not meet the annual target (7.0 percent) and showed an increase from the 2010 baseline, rather than the expected decrease. Additional effort to reduce homelessness among people in HIV medical care is needed in order to reach the target for 2020. It is troubling that homelessness among persons with HIV is not reflecting the same decreases in homelessness seen nationally in the overall population, with a 2 percent decline between 2014 and 2015 and an 11 percent decline since 2007.<sup>4</sup>

## INDICATOR 8

Reduce the death rate among persons with diagnosed HIV infection by at least 33 percent, from the baseline of 23.5 per 1,000 persons with diagnosed HIV infection to 15.5.

**PROGRESS:** The death rate among persons with diagnosed HIV infection was 15.9 per 1,000 in 2013. This result was lower than the annual target (22.3), and exceeded expected progress.

## INDICATOR 9

Reduce disparities in the rate of new diagnoses by at least 15 percent in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.

**PROGRESS:** In 2013, the disparity ratios for gay and bisexual men overall and young Black gay and bisexual men specifically (22.1 and 117.2, respectively) did not meet the annual targets (20.0 and 106.9, respectively). These results reflect an increase from the 2010 baseline, rather than the expected decrease. Preliminary data for 2014 suggest these increases may continue.

The disparity ratio for Black females in 2013 (1.3) was lower than the annual target (1.67), exceeding expected progress in reducing disparities for this group. In fact, the ratio for 2013 for Black females exceeded the 2020 target of 1.4, surpassing the 15 percent reduction in the disparity ratio that the indicator specifies.

<sup>4</sup> US Department of Housing and Urban Development. The 2014 Annual Homeless Assessment Report (AHAR) to Congress. <https://www.hudexchange.info/resources/documents/2014-AHAR-Part1.pdf>. Accessed 7/11/2016.

The disparity ratio for persons living in the Southern United States in 2013 (0.35) did not meet the annual target (0.32). The annual target was met for 2012 but not 2013, suggesting progress has stalled.

Additional efforts are needed in order to reverse the increasing disparities seen for gay and bisexual men and persons living in the Southern United States.

## INDICATOR 10

Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent from the 30.9 percent and 39.6 percent baselines, respectively.

**PROGRESS:** Among youth, 43.7 percent were virally suppressed in 2013. This result exceeded the annual target (38.3 percent). Similarly, among persons who inject drugs 47.1 percent were virally suppressed in 2013. This result exceeded the annual target (45.7 percent).

## INDICATOR 11 (DEVELOPMENTAL)

Increase the percentage of transgender women in HIV medical care who are virally suppressed to at least 90 percent from the baseline of 62.2 percent.

**PROGRESS:** Among transgender women, 77.0 percent were virally suppressed in 2015. This result exceeded the annual target (71.9 percent).

## INDICATOR 12 (DEVELOPMENTAL)

Increase the number of adults prescribed PrEP by at least 500 percent, from the baseline of 9,375 persons to 56,250 persons.

**PROGRESS:** In 2014 there were 9,375 persons with employer-sponsored insurance using PrEP. This serves as the baseline measure for this indicator, so progress was not assessed.

## INDICATOR 13 (DEVELOPMENTAL)

Decrease stigma among persons with diagnosed HIV infection by at least 25 percent, from a baseline median score of 40.0 to 30.0.

**PROGRESS:** In 2015 the stigma indicator median score was 40.0. This serves as the baseline measure for this indicator, so progress was not assessed.

# INDICATORS AND PROGRESS FOR THE NATIONAL HIV/AIDS STRATEGY: UPDATED TO 2020

GOAL	INDICATOR	DATA BY YEAR					ANNUAL TARGET	ANNUAL PROGRESS	2020 TARGET
		2010	2011	2012	2013	2014			
Goal 1	Increase the percentage of people living with HIV who know their serostatus to at least 90 percent	85.9%	86.4%	86.8%	87.0%		86.5%	✓	90%
	Reduce the number of new diagnoses by at least 25 percent	43,806	42,218	42,616	40,628	40,493 <sup>a</sup>	42,163	✓	32,855
Goal 2	Reduce the percentage of young gay and bisexual males who have engaged in HIV risk behaviors by at least 10 percent <sup>b</sup>				34.1%		33.3%	✗	30.7%
	Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least 85 percent	70.2%	70.4%	71.4%	72.6%	74.5%	73.9%	✓	85%
	Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90 percent	54.7%	53.6%	55.3%	56.5%		60.0%	↗	90%
	Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80 percent	46.0%	48.5%	51.6%	54.7%		51.1%	✓	80%
	Reduce the percentage of persons in HIV medical care who are homeless to no more than 5 percent	7.7%	8.1%	8.3%	7.9%	9.0%	7.0%	✗	5%
	Reduce the death rate among persons with diagnosed HIV infection by at least 33 percent <sup>c</sup>	23.5	20.8	18.0	15.9		22.3	✓	15.5
	Reduce disparities in the rate of new diagnoses by at least 15 percent among gay and bisexual men <sup>d</sup>	20.5	21.2	21.9	22.1	22.7 <sup>a</sup>	20.0	✗	17.4
Goal 3	Reduce disparities in the rate of new diagnoses by at least 15 percent among young Black gay and bisexual men <sup>d</sup>	109.4	112.4	112.9	117.2	116.5 <sup>a</sup>	106.9	✗	93.0
	Reduce disparities in the rate of new diagnoses by at least 15 percent among Black females <sup>d</sup>	1.7	1.5	1.4	1.3	1.2 <sup>a</sup>	1.7	✓	1.4
	Reduce disparities in the rate of new diagnoses by at least 15 percent among persons living in the Southern United States <sup>d</sup>	0.33	0.35	0.33	0.35	0.34 <sup>a</sup>	0.32	✗	0.28
	Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least 80 percent	30.9%	34.3%	38.9%	43.7%		38.3%	✓	80%
	Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent	39.6%	40.6%	44.1%	47.1%		45.7%	✓	80%
Developmental Indicators <sup>e</sup>	Increase the percentage of transgender women in HIV medical care who are virally suppressed to at least 90 percent	62.2%	65.3%	68.5%	72.0%	73.9%	71.9%	✓	90%
	Increase the number of adults prescribed PrEP by at least 500 percent					9,375	n/a	○	56,250
	Decrease stigma among persons diagnosed with HIV infection by at least 25 percent <sup>f</sup>					40.0	n/a	○	30.0

Note: Annual targets are for the most recent data year available (does not include preliminary data) and progress is assessed for the annual target.  
 Progress: ✓ = Annual target met; ↗ = Annual target not met, progress in expected direction; ✗ = Annual target not met, moving in the opposite direction; ○ = Progress not assessed.  
<sup>a</sup> Preliminary data.  
<sup>b</sup> Data collected every 2 years, starting in 2013. The 2013 estimate is based on data from 15 large urban school districts; the 2015 estimate is a national estimate.  
<sup>c</sup> Death rate is measured per 1,000 persons with diagnosed HIV infection.  
<sup>d</sup> Measures shown are ratios of the disparity rate in the specified group to the overall rate.  
<sup>e</sup> Developmental indicators will remain in development as work to define the indicators and data sets will continue over the next few years and the indicators may change as additional or different data become available.  
<sup>f</sup> Measures shown are the median score of a 10-item stigma scale, ranging from 0 (no stigma) to 100 (high stigma).

# INDICATOR SPECIFICATION

This section of the document provides detailed information on the measurement of each indicator. Additional information about the methods, data systems, and results are available in the references cited for each indicator.

Unless noted otherwise, annual targets for the indicators were set by allocating the total amount of change needed between the 2010 baseline and the 2020 target on an accelerated basis. The allocation is as follows: five percent of the total change is expected for each of the initial three years (2011–2013), ten percent is expected for each of the subsequent four years (2014–2017), and fifteen percent of the total change is expected for each of the final three years (2018–2020). This allocation allows for implementation activities begun after the 2010 release of the Strategy to take hold and their effects to accelerate over time, rather than expecting slow advances year by year.

Having achieved the target for reducing the disparity in the rate of new diagnoses for Black women and girls by 15 percent in 2013 and seeing that the decreases in the death rate are quickly approaching the 2020 target, the NHAS Indicator Workgroup considered whether to modify indicator targets once the 2020 levels had been achieved. We decided to maintain the 2020 targets as they were originally set for several reasons:

- The Strategy, and the indicators used to monitor progress, are meant to stand as guiding documents for the period 2015–2020.
- We deliberately described the amount of desired change in the indicators as “by at least” a certain amount or “to at least” a certain level; this language suggests that we expect those targets may be achieved before 2020 and allows for continued monitoring of the indicators without changing the targets.
- Many Federal agencies have aligned funding requirements or progress assessments with the Strategy and the indicators. Changes to the Strategy and its indicators can be disruptive to these types of multiyear initiatives.
- One of the criteria for developing the indicators was to use data that state and local jurisdictions could use to track their progress locally with the same indicators and targets as were determined nationally. Given state to state variation in other indicators<sup>5</sup>, it is not likely that all states would reach the national targets at the same time, so making even more ambitious national targets make push some areas further behind.

Achieving the 2020 target early does not mean that our work is complete. Most of the indicator targets reflect change in the desired direction, but even reaching the targets does not solve the problem. This is clearly the case for Indicator 9, reducing the disparity in the rate of diagnoses by 15 percent in specified groups. Although we celebrate the successes in making that 15 percent reduction for Black women and girls, this reduction does not eliminate the disparity. Work must continue to address this disparity and the indicator can be used to assess the amount of progress each year.

An exception to the standard of limiting changes to the indicators is the “developmental” indicators. These are considered “developmental” indicators because work to define the indicators and data sets is expected to continue over the next few years and the indicators may change as additional or different data become available. However, any changes will take into account the limited time horizon (2015-2020) for seeing the impact of changes and the points raised above.

## **INDICATOR 1**

**Increase the percentage of people living with HIV who know their serostatus to at least 90 percent.**

### **NATIONAL HIV/AIDS STRATEGY GOAL**

Reducing New HIV Infections.

### **INDICATOR RATIONALE**

This indicator focuses on increasing serostatus awareness among persons living with HIV infection, as this awareness (i.e., being diagnosed with HIV infection) is necessary to access HIV medical care and support services. In addition, analyses suggest that persons unaware of their HIV infection may account for about one third of new infections, so increasing knowledge of serostatus is central to reducing new infections as well as improving health outcomes. The 90 percent target is the same as the target established by the Joint United Nations Programme on HIV/AIDS (UNAIDS) for their 2020 indicators.

### **BASELINE YEAR**

2010

### **NUMERATOR**

Number of persons aged  $\geq 13$  years at diagnosis with diagnosed HIV infection at the end of the calendar year.

### **DENOMINATOR**

Number of persons aged  $\geq 13$  years at diagnosis living with HIV infection (diagnosed or undiagnosed) at the end of the calendar year.

### **DATA SOURCE**

National HIV Surveillance System (NHSS).

### **DATA AVAILABILITY**

Data are released annually by CDC.

## POPULATION COVERAGE

Includes all 50 states and the District of Columbia. Estimates are for persons aged  $\geq 13$  years at diagnosis.

## DATA SOURCE LIMITATIONS

Data are estimates, based on diagnoses, severity of disease at diagnoses, and deaths, and are statistically adjusted for incomplete reporting, reporting delays, and missing transmission risk.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
85.9%	86.1%	86.3%	86.5%	86.9%	87.3%	87.7%	88.2%	88.8%	89.4%	90%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually; data from prior years may be updated. The most recent reference, including data for 2010-2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*



## INDICATOR 2

**Reduce the number of new diagnoses by at least 25 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing New HIV Infections.

### INDICATOR RATIONALE

This indicator measures progress towards the goal of reducing new infections. The 25 percent reduction in diagnoses is an ambitious target because it requires and encompasses improvement in all other indicators and in overall prevention, treatment, and care efforts. Although HIV incidence estimates were used previously as an indicator for the Strategy to measure reductions in new infections, these estimates have not provided a timely and consistent way to monitor progress. The estimated number of new infections has changed, and likely will continue to change over time, due to changes in HIV testing technology and incidence estimation methods. These changes make it difficult to use these data as an indicator to measure progress over time. In contrast, HIV diagnosis data are published in a routine and standardized format and are available for all states. Given these advantages, HIV diagnosis data are used for the indicator in the Strategy.

### BASELINE YEAR

2010

### NUMERATOR

Number of (unadjusted) HIV diagnoses among persons of all ages during the calendar year and reported to CDC within 18 months of the diagnosis year.

### DENOMINATOR

None.

### DATA SOURCE

National HIV Surveillance System (NHSS).

### DATA AVAILABILITY

Data are released annually by CDC. Preliminary data are reported for the most current data and include all diagnoses reported to CDC within 6 months of the diagnosis year.



## POPULATION COVERAGE

Includes all 50 States, the District of Columbia and 6 U.S. dependent areas.

## DATA SOURCE LIMITATIONS

HIV diagnosis data may not be representative of all persons with HIV because not all infected persons have been tested or tested at a time when the infection could be detected and diagnosed. Anonymous tests are also not reported.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
43,806	43,258	42,711	42,163	41,068	39,973	38,878	37,783	36,140	34,498	32,855

## REFERENCES AND RELATED MATERIALS

Data for this indicator are published in the annual HIV Surveillance Report from CDC. Although the number of diagnoses may continue to be updated over time, and reflected in subsequent volumes of the HIV Surveillance Report, for the purposes of monitoring this indicator, the number of diagnoses will be set and no longer updated at 18 months after the end of the diagnosis year (e.g., the 2011 diagnoses were set in June 2013). The reference to the most recent HIV Surveillance Report is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## NOTES

1. The most recent year reported is considered “preliminary” as described above. Progress towards annual targets is assessed for the most recent year with data that are not preliminary.
2. Using diagnosis data to track progress in reducing new HIV infections has some challenges. First, these data must be interpreted with consideration for trends in HIV testing, as changes in testing can lead to changes in diagnosis trends that are not related to trends in new infections. For example, if HIV diagnoses decrease, evaluation is required to determine whether this decrease is due to fewer HIV tests being conducted or HIV tests being performed on persons at lower risk, versus an indication of a decline in new HIV infections. Second, efforts to increase the percentage of people living with HIV who know their HIV status require an increase in diagnoses—meaning that, at least initially, achieving progress toward Indicator 1 may have a negative impact on progress toward Indicator 2. Over the longer term, diagnosing individuals who were previously undiagnosed will ultimately result in increased linkage to and retention in care and treatment, increased viral suppression, and decreased transmission to uninfected partners. This will reduce new infections, which will be reflected in a decrease in the number of new diagnoses.



## INDICATOR 3

**Reduce the percentage of young gay and bisexual men who have engaged in HIV-risk behaviors by at least 10 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing New HIV Infections.

### INDICATOR RATIONALE

This indicator measures HIV prevention behaviors in young gay and bisexual males, a group in which HIV infections have increased in recent years. Having an indicator specifically measuring risk for HIV acquisition among young gay and bisexual males reflects the need for effective prevention strategies to achieve the goal of reducing new infections in at-risk groups. The indicator measures behaviors using the Youth Risk Behavior Surveillance System (YRBSS).

### BASELINE YEAR

2013

### NUMERATOR

Number of male students in grades 9-12 who ever had sexual intercourse with only males or with both males and females and who 1) had sexual intercourse during the past three months with three or more persons, or 2) had sexual intercourse during the past three months and did not use a condom during last sexual intercourse, or 3) ever injected any illegal drug.

### DENOMINATOR

All male students in grades 9-12 who had ever had sexual intercourse with only males or with both males and females.

### DATA SOURCE

Youth Risk Behavior Surveillance System (YRBSS).

### DATA AVAILABILITY

National data are collected every 2 years by CDC and released the year following data collection.

## POPULATION COVERAGE

Starting in 2015, questions used to derive this indicator were added to the standard YRBSS questionnaire and the national YRBSS questionnaire so the estimates are nationally representative. The 2013 data (baseline for this indicator) were derived from surveys conducted by 15 large urban school districts in the following areas: Baltimore, Boston, Chicago, Detroit, District of Columbia, Fort Lauderdale, Houston, Los Angeles, Memphis, New York City, Orange County, Palm Beach, Philadelphia, San Diego, and San Francisco.

## DATA SOURCE LIMITATIONS

YRBSS data are representative only of youth who attend school, not of all youth in this age group. Nationally representative data were not available for 2013, but were available for 2015 and are expected for future years. Data are subject to reporting biases, given the socially sensitive subject matter.

## ANNUAL TARGETS

2013	2014	2015	2016	2017	2018	2019	2020
34.1%		33.3%		32.5%		31.3%	30.7%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including this indicator is released annually. The most recent reference, including data for 2015, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.* General information about YRBSS can be found in the following references:

- Youth Risk Behavior Surveillance – United States, 2013. MMWR 2014;63(No. 4):1-150.
- Methodology of the Youth Risk Behavior Surveillance System. MMWR 2013;66 (RR-01):1-20.
- YRBSS Participation Maps and History. <http://www.cdc.gov/healthyyouth/yrbs/history-states.htm>.

## NOTES

Because the baseline was calculated from 15 cities and the 2015 data are nationally representative, it will be important to consider trends in the nationally representative data over time.

## **INDICATOR 4**

**Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of their HIV diagnosis to at least 85 percent.**

### **NATIONAL HIV/AIDS STRATEGY GOAL**

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### **INDICATOR RATIONALE**

In recognition of the benefits of early treatment and thus the need for immediate linkage to HIV medical care for all persons newly diagnosed with HIV, this indicator measures linkage to care within one month of diagnosis. This is an ambitious target as the previous version of this indicator called for linkage to care within three months of diagnosis.

### **BASELINE YEAR**

2010

### **NUMERATOR**

Number of persons aged  $\geq 13$  years newly diagnosed with HIV infection during the calendar year who were linked to care within one month of their diagnosis date as measured by a documented test result for a CD4 count or viral load.

### **DENOMINATOR**

All persons aged  $\geq 13$  years newly diagnosed with HIV infection during the calendar year.

### **DATA SOURCE**

National HIV Surveillance System (NHSS).

### **DATA AVAILABILITY**

Data are released annually by CDC.

## POPULATION COVERAGE

Data for this indicator are limited to jurisdictions with complete reporting of CD4 and viral load test results to CDC. The number of jurisdictions meeting these criteria each year are as follows: 2010—14 jurisdictions; 2011—19 jurisdictions; 2012—18 jurisdictions; 2013—28 jurisdictions; 2014—33 jurisdictions.

## DATA SOURCE LIMITATIONS

The number of states with data included for this indicator is limited and the states included for analysis may vary from year to year. However, the number of states contributing data is expected to increase over time as more will have complete reporting of CD4 and viral load test results to CDC. The use of a laboratory test result (CD4 or viral load) as a proxy for a care visit has some limitations and may result in over- or underestimation of care visits.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
70.2%	70.9%	71.7%	72.4%	73.9%	75.4%	76.9%	78.3%	80.6%	82.8%	85%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2014, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## NOTES

To assess changes in the indicator and account for changes in the number of states contributing data, we also assessed trends in linkage to care for the jurisdictions included at baseline that contributed data for each year of the assessment. The eight jurisdictions included at baseline that have contributed data for each year of the assessment saw increases in linkage to care within one month of diagnosis from 2010-2014 and met the annual target (special data run by CDC).

## **INDICATOR 5**

**Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90 percent.**

### **NATIONAL HIV/AIDS STRATEGY GOAL**

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### **INDICATOR RATIONALE**

In order for persons living with HIV infection to realize the full benefit of HIV medical care, they must stay in care over time. Doing so helps to achieve viral suppression that can improve health outcomes, reduce the risk of HIV transmission, and lower the number of new infections. The 2020 target will be difficult to reach, but is a key focus area of the Strategy. The target of 90 percent is comparable to the indicator used by UNAIDS.

### **BASELINE YEAR**

2010

### **NUMERATOR**

Number of persons aged  $\geq 13$  years with diagnosed HIV infection who had two care visits that were at least 90 days apart during the calendar year, as measured by documented test results for CD4 count or viral load.

### **DENOMINATOR**

Number of persons aged  $\geq 13$  years with HIV infection diagnosed by previous year-end and alive at year-end.

### **DATA SOURCE**

National HIV Surveillance System (NHSS).

### **DATA AVAILABILITY**

Data are released annually by CDC.

## POPULATION COVERAGE

Data for this indicator are limited to jurisdictions with complete reporting of CD4 and viral load test results to CDC. The number of jurisdictions meeting these criteria each year are as follows: 2010—19 jurisdictions; 2011—18 jurisdictions; 2012—28 jurisdictions; 2013—33 jurisdictions. Data from these 33 jurisdictions represent 69.5 percent of all persons aged  $\geq 13$  years living with diagnosed HIV infection at year-end 2013. The indicator is calculated among people whose most recent known address is in these jurisdictions and are alive as of the end of the specified year regardless of where they were diagnosed.

## DATA SOURCE LIMITATIONS

The number of states with data included for this indicator is limited and the states included for analysis may vary from year to year. However, the number of states contributing data is expected to increase over time as more will have complete reporting of CD4 and viral load test results to CDC. The use of a laboratory test result (CD4 or viral load) as a proxy for a care visit has some limitations and may result in over- or underestimation of care visits.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
54.7%	56.5%	58.2%	60.0%	63.5%	67.1%	70.6%	74.1%	79.4%	84.7%	90%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## NOTES

People who have more than two visits may be considered retained in care, as long as one set of visits occurs at least 90 days apart.

To assess changes in the indicator and account for changes in the number of states contributing data, we also assessed trends in retention in care for the jurisdictions included at baseline that contributed data for each year of the assessment. The eight jurisdictions included at baseline that contributed data for each year of the assessment saw increases in retention in care from 2010-2013 but did not meet the annual target (special data run by CDC).



## INDICATOR 6

**Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### INDICATOR RATIONALE

Accruing the full clinical and public health benefits of HIV medical care depends upon entry into a robust care continuum that includes early diagnosis, timely linkage to care, consistent access and adherence to HIV medical care and antiretroviral treatment, and ongoing monitoring to ensure viral suppression. As the endpoint of the continuum of care, it is important that the nation's target for viral suppression is bold and ambitious. This target for the United States aligns with the 90-90-90 goals set by UNAIDS but uses a different denominator. That is, 90 percent of those diagnosed are retained and 90 percent of those retained are virally suppressed is approximately the same as 80 percent of those diagnosed being virally suppressed.

### BASELINE YEAR

2010

### NUMERATOR

Number of persons aged  $\geq 13$  years with diagnosed HIV infection whose most recent viral load test in the calendar year showed that HIV viral load was suppressed. Viral suppression was defined as a viral load result of  $< 200$  copies/mL at the most recent viral load test (except for 2010 when it was defined as  $\leq 200$  copies/mL).

### DENOMINATOR

Number of persons aged  $\geq 13$  years with HIV infection diagnosed by previous year-end and alive at year-end.

### DATA SOURCE

National HIV Surveillance System (NHSS).

### DATA AVAILABILITY

Data are released annually by CDC.



## POPULATION COVERAGE

Data for this indicator are limited to jurisdictions with complete reporting of CD4 and viral load test results to CDC. The number of jurisdictions meeting these criteria each year are as follows: 2010—19 jurisdictions; 2011—18 jurisdictions; 2012—28 jurisdictions; 2013—33 jurisdictions. Data from these 33 jurisdictions represent 69.5 percent of all persons aged  $\geq 13$  years living with diagnosed HIV infection at year-end 2013. The indicator is calculated among people whose most recent known address is in these jurisdictions and are alive as of the end of the specified year regardless of where they were diagnosed.

## DATA SOURCE LIMITATIONS

The number of states with data included for this indicator is limited and the states included for analysis may vary from year to year. However, the number of states contributing data is expected to increase over time as more will have complete reporting of CD4 and viral load test results to CDC.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
46.0%	47.7%	49.4%	51.1%	54.5%	57.9%	61.3%	64.7%	69.8%	74.9%	80%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## NOTES

To assess changes in the indicator and account for changes in the number of states contributing data, we also assessed trends in viral suppression for the jurisdictions included at baseline that contributed data for each year of the assessment. The eight jurisdictions included at baseline that contributed data for each year of the assessment saw increases in viral suppression from 2010-2013 and exceeded the annual target (special data run by CDC).



## INDICATOR 7

**Reduce the percentage of persons in HIV medical care who are homeless to no more than 5 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### INDICATOR RATIONALE

Housing status is an important factor affecting access to HIV care and health outcomes. This indicator measures homelessness among persons in HIV medical care, using the Medical Monitoring Project (MMP) as the data source. As the proportion of those who are homeless decreases, it will take considerable effort to reach the small proportion of those still requiring housing assistance.

### BASELINE YEAR

2010

### NUMERATOR

Number of persons aged  $\geq 18$  years who received outpatient medical care for HIV infection during January through April of the calendar year, and report having been homeless during the 12 months prior to interview. Homelessness is defined as living on the street, living in a shelter, living in a single-room-occupancy hotel, or living in a car.

### DENOMINATOR

All persons aged  $\geq 18$  years who received outpatient medical care for HIV infection during January through April of the calendar year, as documented in the medical record.

### DATA SOURCE

Medical Monitoring Project (MMP)

### DATA AVAILABILITY

Data are expected to be released annually by CDC.

## POPULATION COVERAGE

MMP uses three-stage sampling to achieve annual representative samples of adults receiving HIV care in the United States. MMP only samples persons aged 18 years and older. The jurisdictions that provide the relevant data account for 80 percent of the total HIV cases in the United States. These include: California, Delaware, Florida, Georgia, Illinois, Indiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Puerto Rico, Texas, Virginia, Washington, Chicago, Houston, Los Angeles County, New York City, Philadelphia, and San Francisco.

## DATA SOURCE LIMITATIONS

Self-reported data may be subject to social response bias. Data may be an underestimate because only persons receiving medical care during January-April are included.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
7.7%	7.6%	7.4%	7.3%	7.0%	6.8%	6.5%	6.2%	5.8%	5.4%	5%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2014, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). [www.cdc.gov/hiv/library/reports/surveillance/](http://www.cdc.gov/hiv/library/reports/surveillance/). Published July 2016.*



## INDICATOR 8

**Reduce the death rate among persons with diagnosed HIV infection by at least 33 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### INDICATOR RATIONALE

An indicator to monitor all-cause death rates among persons with HIV was included in the Strategy because reducing mortality is an anticipated outcome of achieving all of the goals of the Strategy. This indicator reflects the overall quality of HIV medical care received, such that sustained delivery of high quality care should lead to greater reductions in death rates for persons living with HIV infection.

### BASELINE YEAR

2010

### NUMERATOR

Estimated number of deaths during a calendar year among persons aged  $\geq 13$  years with diagnosed HIV infection.

### DENOMINATOR

Estimated total number of persons with diagnosed HIV infection, aged  $\geq 13$  years, at the end of the previous year plus the number of persons, aged  $\geq 13$  years, with newly diagnosed infection in the year of the deaths. The rate is measured per 1,000 persons with diagnosed HIV infection.

### DATA SOURCE

National HIV Surveillance System (NHSS).

### DATA AVAILABILITY

Data are released annually by CDC.

## POPULATION COVERAGE

Includes all 50 states and the District of Columbia.

## DATA SOURCE LIMITATIONS

Data are adjusted for reporting delay. Estimates of deaths for the most recent year are subject to uncertainty due to delays in reporting.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
23.5	23.1	22.7	22.3	21.5	20.7	19.9	19.1	17.9	16.7	15.5

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. Although the number of deaths may continue to be updated over time, and reflected in subsequent volumes of the HIV Surveillance Supplemental Report, for the purposes of this indicator the number of deaths will not be updated in future years. The most recent reference, including data for 2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## NOTES

The age restrictions ( $\geq 13$  years) are based on age at diagnosis. All-cause mortality, rather than HIV-related mortality, was measured given limitations in ascertainment and completeness of reporting cause of death due to HIV infection in vital statistics. The death rate is age adjusted and used the U.S. 2000 standard population distribution to adjust death rates per 1,000 persons living with diagnosed HIV infection.



## INDICATOR 9

**Reduce disparities in the rate of new diagnoses by at least 15 percent in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing HIV-Related Disparities and Health Inequities.

### INDICATOR RATIONALE

This indicator monitors disparities in diagnosis rates for disproportionately affected groups by measuring changes in the ratio of the disparity rate for each group (numerator) and the overall population rate (denominator). The ratio provides a measure of the disparity, such that the ratio increases as the difference widens between a selected group and the overall population and decreases as the difference narrows. The choice of measuring diagnosis rates, rather than numbers, was made to standardize measures (i.e., per 100,000 population).

### BASELINE YEAR

2010

### NUMERATOR

The diagnosis disparity rate for the specified group (see the Population Coverage section below for the groups). Diagnosis disparity rate is calculated by subtracting the diagnosis rate for the overall population from the diagnosis rate for the specified group (see Notes). The diagnosis rate is calculated from the number of (unadjusted) HIV diagnoses during the calendar year and reported to CDC within 18 months of the diagnosis year.

### DENOMINATOR

The rate of HIV diagnosis for the overall population in the calendar year. The overall population is defined as persons of all ages in the 50 states and the District of Columbia. The rate is per 100,000 population.

### DATA SOURCE

National HIV Surveillance System (NHSS), Census, Estimate of population size of gay and bisexual men.

### DATA AVAILABILITY

Surveillance data are released annually by CDC. Census data are also released annually by the Bureau of the Census. Data for the most current data year include all diagnoses reported to CDC within 6 months of the diagnosis year and are considered preliminary.

## POPULATION COVERAGE

Four groups are specified for this indicator: gay and bisexual men aged  $\geq 13$  years in the 50 states and the District of Columbia; young Black gay and bisexual men aged 13-24 years in the 50 States and the District of Columbia; Black females aged  $\geq 13$  years in the 50 States and the District of Columbia; and persons living in the Southern United States (all age groups) which is comprised of the District of Columbia and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

## DATA SOURCE LIMITATIONS

HIV diagnosis data may not be representative of all persons with HIV because not all infected persons have been tested or tested at a time when the infection could be detected and diagnosed. Anonymous tests are also not reported. Transmission risk is estimated for those with missing risk information. The population estimates for gay and bisexual men may be underestimated due to social response bias in self-reported data; population data for other groups are from the Census.

## ANNUAL TARGETS

Group	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gay and Bisexual Men	20.5	20.3	20.2	20.0	19.7	19.4	19.1	18.8	18.3	17.9	17.4
Young Black Gay and Bisexual Men	109.4	108.6	107.8	106.9	105.3	103.7	102.0	100.4	97.9	95.5	93.0
Black Females*	1.7	1.70	1.68	1.67	1.64	1.62	1.59	1.57	1.53	1.49	1.4
Southern U.S.*	0.33	0.33	0.33	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.28

\* Annual targets are shown to 2 decimal points because of small incremental change.

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

The population size estimate, used to calculate diagnosis rates for all gay and bisexual men and young Black gay and bisexual men come from: Purcell DW, Johnson CH, Lansky A, Prejean J, Stein R, Denning P, Gaul Z, Weinstock H, Su J, Crepaz N. Estimating the population size of men who have sex with men in the United States to obtain HIV and syphilis rates. *Open AIDS Journal* 2012; 6 (Suppl 1: M4): 98-107.

## NOTES

The disparity ratio monitored for this indicator is based on the following:

1. The diagnosis rate for the overall population;
2. The diagnosis rate for each specific group (i.e., gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States);
3. The diagnosis disparity rate, which is the difference in rates between the overall population (#1) and each specific group (#2); and
4. The diagnosis disparity ratio, which is the ratio of the diagnosis disparity rate (#3) to the overall rate (#1).

The U.S. census count was used to calculate rates per 100,000 persons for each group. To obtain a population estimate for gay and bisexual men and young Black gay and bisexual men, the census count for males and young Black males, respectively, was multiplied by 6.9 percent based on the population estimate reported by Purcell et al cited above.

To calculate the HIV diagnosis rate for the overall population, the number of diagnoses for the overall population (persons of all ages in the 50 states and the District of Columbia) was divided by total U.S. census population and multiplied by 100,000. To calculate HIV diagnosis rates for the specified groups, the number of diagnoses for the group (in the 50 states and the District of Columbia) was divided by appropriate U.S. census population and multiplied by 100,000.





## INDICATOR 10

**Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing HIV-Related Disparities and Health Inequities.

### INDICATOR RATIONALE

This indicator extends a focus on viral suppression to youth and persons who inject drugs, given data showing important disparities in viral suppression (i.e., lower proportion virally suppressed) for these groups in comparison to the overall. Ensuring that the target for viral suppression for the two groups is the same as the overall target reduces the disparity in these groups.

### BASELINE YEAR

2010

### NUMERATOR

Number of HIV-diagnosed adults aged  $\geq 13$  years in the specified group (i.e., youth or persons who inject drugs) whose most recent viral load test in the past 12 months year showed that HIV viral load was suppressed. Viral suppression was defined as a viral load result of  $< 200$  copies/mL at the most recent viral load test (except for 2010 when it was defined as  $\leq 200$  copies/mL).

### DENOMINATOR

Number of persons aged  $\geq 13$  years with HIV infection diagnosed by previous year-end and alive at year-end.

### DATA SOURCE

National HIV Surveillance System (NHSS).

### DATA AVAILABILITY

Data are released annually by CDC.

## POPULATION COVERAGE

Data for this indicator are limited to jurisdictions with complete reporting of CD4 and viral load test results to CDC. The number of jurisdictions meeting these criteria each year are as follows: 2010—19 jurisdictions; 2011—18 jurisdictions; 2012—28 jurisdictions; 2013—33 jurisdictions. Data from these 33 jurisdictions represent 69.5 percent of all persons aged  $\geq 13$  years living with diagnosed HIV infection at year-end 2013. The indicator is calculated among people whose most recent known address is in these jurisdictions and are alive as of the end of the specified year regardless of where they were diagnosed.

## DATA SOURCE LIMITATIONS

The number of states with data included for this indicator is limited and the states included for analysis may vary from year to year. However, the number of states contributing data is expected to increase over time as more will have complete reporting of CD4 and viral load test results to CDC.

## ANNUAL TARGETS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Youth</b>	30.9%	33.4%	35.8%	38.3%	43.2%	48.1%	53.0%	57.9%	65.3%	72.6%	80%
<b>PWID</b>	39.6%	41.6%	43.6%	45.7%	49.7%	53.7%	57.8%	61.8%	67.9%	73.9%	80%

## REFERENCES AND RELATED MATERIALS

An HIV Surveillance Supplemental Report including these data is released annually. The most recent reference, including data for 2013, is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

## **INDICATOR 11** (DEVELOPMENTAL)

**Increase the percentage of transgender women in HIV medical care who are virally suppressed to at least 90 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Increasing Access to Care and Improving Health Outcomes for People Living with HIV.

### DEVELOPMENTAL INDICATOR

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available.

### INDICATOR RATIONALE

Although transgender women do not represent a large share of the overall number of persons living with HIV infection, the prevalence of HIV among transgender women is high. Studies have found that up to 30 percent of transgender women in the United States are living with HIV infection. The National HIV/AIDS Strategy includes transgender women as a key population, specifically due to the high prevalence of HIV and its impact on this group. For those living with HIV, accruing the full clinical and public health benefits of HIV care depends upon entry into a robust care continuum that includes early diagnosis, timely linkage to care, consistent access and adherence to HIV medical care and antiretroviral treatment, and ongoing monitoring to ensure viral suppression. As the endpoint of the continuum of care, it is important that the nation's target for viral suppression is bold and ambitious. This target for transgender women in the United States aligns with the 90-90-90 goals set by UNAIDS and National HIV/AIDS Strategy Indicator 6.

### BASELINE YEAR

2010

### IDENTIFICATION OF TRANSGENDER PERSONS

The Ryan White HIV/AIDS Program (RWHAP) collects client-level socio-demographic and service provision data annually through the Ryan White HIV/AIDS Program Services Report (RSR). Since 2014, client sex at birth and current gender identity have been required reportable variables and are based on client self-report. Prior to 2014, only current gender identity was reported and was also based on client self-report. Current gender identity designations are male, female, or transgender. Transgender clients are subsequently classified as male-to-female (MTF), female-to-male (FTM), or transgender unknown. Beginning with 2015

data, HRSA uses the sex at birth variable to further refine the identification of transgender clients. For this indicator, transgender women are those whose current gender identity is “transgender” and who are further classified as MTF, or whose current gender identity is female and sex assigned at birth is male.

## NUMERATOR

Number of transgender women living with HIV aged  $\geq 13$  years who received from an RWHAP provider at least one outpatient ambulatory health care (OAHC) visit and had at least one viral load test during the measurement year, whose most recent viral load test showed that HIV viral load was suppressed. Viral suppression was defined as a viral load result of  $< 200$  copies/mL at the most recent viral load test.

## DENOMINATOR

Number of transgender women living with HIV aged  $\geq 13$  years who received from an RWHAP provider at least one OAHC visit and had at least one viral load test during the measurement year.

## DATA SOURCE

Ryan White HIV/AIDS Program Services Report (RSR).

## DATA AVAILABILITY

Data are released annually by HRSA.

## POPULATION COVERAGE

Data reported to the RSR include all RWHAP clients in 50 states, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands. In 2015, the RWHAP provided care, treatment, and supportive services to more than 50 percent of all people living with diagnosed HIV infection in the United States. Of all RWHAP clients living with HIV, 66 percent received both OAHC services and a viral load test (the criteria above); this represents more than 340,000 clients overall.

## DATA SOURCE LIMITATIONS

Clients served by the RWHAP do not represent all persons with HIV or all persons receiving care in the United States. Viral suppression analyses are based on clients who had at least one OAHC visit and at least one viral load test in the calendar year. Due to this specification, clients included in the analyses for viral suppression do not represent all clients receiving services from RWHAP providers. From 2010–2014, RWHAP clients with OAHC visits *and/or* laboratory tests that were not paid for by the RWHAP (i.e., paid for by some form of health care coverage such as Medicaid or private insurance) were not reported to the RSR and were therefore excluded from the denominator. Beginning in 2015, data were reported for all clients who received services and were eligible for RWHAP funding, regardless of the actual funding used to pay for the services. Despite this change to “eligible scope reporting,” the proportion of transgender clients served by RWHAP did not change.

Limiting the indicator to viral suppression among transgender women excludes data for transgender men. However, the number of transgender men in the viral suppression analyses for 2010–2014 was  $< 100$  each year, which would likely result in unstable estimates. Data for transgender men are available in the *Ryan White HIV/AIDS Program Annual Client-Level Data Report*.

## ANNUAL TARGETS

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
62.2%	63.6%	65.0%	66.4%	69.2%	71.9%	74.7%	77.5%	81.7%	85.8%	90.0%

## REFERENCES AND RELATED MATERIALS

A Ryan White HIV/AIDS Program Annual Client-Level Data Report including these data is released annually. The most recent reference, including data for 2015, is: *Health Resources and Services Administration. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2015. <http://hab.hrsa.gov/data/data-reports>. Published December 2016.* Data for this indicator for 2011–2015 can be found in Table 13a. Data for 2010 are unpublished.

## NOTES

Although the National HIV Surveillance System (NHSS) collects data on transgender status (sex at birth and current gender identity), an assessment of the quality of the data collected and validation of methods for analyzing these data are ongoing. Data from 2011–2014 include few transgender persons (MTF or FTM), resulting in unstable estimates that are not ideal for use in an indicator measure. CDC supports data collection and will continue to conduct analytic work so that data are available at the national and state levels for uses such as epidemiologic profiles and targeting prevention and care resources.

To increase the number of data sources that collect information to determine transgender status, the U.S. Department of Health and Human Services has plans to develop an issue brief delineating the agency's strategy and implementation plans to add sexual orientation and gender identity questions to national surveys, administrative data systems, and electronic health records (<http://www.hhs.gov/programs/topic-sites/lgbt/reports/health-objectives-2015.html>). This will be an important addition to data systems that also collect information on use of HIV prevention and care services, expanding the possibilities for monitoring HIV outcomes among transgender persons nationally.

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available.



## INDICATOR 12 (DEVELOPMENTAL)

**Increase the number of adults prescribed PrEP by at least 500 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing New HIV Infections.

### DEVELOPMENTAL INDICATOR

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available.

### INDICATOR RATIONALE

This developmental indicator measures progress towards the National HIV/AIDS Strategy objective of expanding access to effective prevention services, including pre-exposure prophylaxis (PrEP). The 500 percent increase in PrEP prescriptions is consistent with what has been achieved with other clinically delivered prevention methods in the initial years after introduction (e.g., HPV vaccination). Currently the only medication regimen approved by the Food and Drug Administration and recommended for PrEP is daily TDF 300 mg co-formulated with FTC 200 mg (TDF/FTC, or Truvada).

### BASELINE YEAR

2014

### NUMERATOR

Number of commercially-insured persons (nationally weighted) aged  $\geq 18$  years who were prescribed TDF/FTC (Truvada) for PrEP for  $>30$  days in a given calendar year.

### DENOMINATOR

None.

### DATA SOURCE

Data licensed from MarketScan Commercial Claims and Encounter Database (Truven Health Analytics, Ann Arbor, MI) are analyzed by CDC.

## DATA AVAILABILITY

Data are released annually by CDC.

## POPULATION COVERAGE

The data include approximately 50 million enrollees each year drawn from annual convenience samples of about 100 large employer-sponsored health insurance plans nationwide. The annual dataset represents about 60 percent of adults who have employer-sponsored insurance in all 50 states and the District of Columbia. Approximately 60 percent of persons aged 18-64 years have employer-based insurance.

## DATA SOURCE LIMITATIONS

The data used for this indicator include claims for clinical care visits and pharmacy claims for persons with employer-sponsored insurance. Missing data, changes in insurance coverage for individuals during a given year, and other measurement error may affect the accuracy of the resulting estimates. The data source also does not include information on behaviors that determine indications for PrEP according to the CDC Clinical Practice Guidelines for PrEP. Use of data representing commercially-insured persons means the indicator does not reflect persons prescribed PrEP through other payer sources (e.g., private insurance/HMOs, Medicaid, Medicare, Veterans Affairs, pharmaceutical company assistance plan, state PrEP assistance plans).

## ANNUAL TARGETS

The annual targets were based on apportioning the total amount of change in the indicator (i.e., 500 percent increase in PrEP use) over the 6 year period such that 10 percent of the total change would occur in the first year, 15 percent of the change in the next two years, and 20 percent of the change in each of the last three years.

2014	2015	2016	2017	2018	2019	2020
9,375	14,063	21,094	28,125	37,500	46,875	56,250

## REFERENCES AND RELATED MATERIALS

Data for this indicator will be included in an HIV Surveillance Supplemental Report that is released annually. The most recent reference for that report (not including the data on PrEP use) is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

The algorithm and baseline data are described in Wu H, Mendoza M, Huang Y, et al. Uptake of HIV preexposure prophylaxis among commercially insured persons — United States, 2010-2014. *Clinical Infectious Disease*. DOI:10.1093/cid/ciw701.

## NOTES

Estimates for PrEP use are based on 4 steps:

1. Apply an algorithm with national drug codes to identify TDF/FTC (Truvada) prescription claims.
2. Subtract persons with diagnostic or procedure codes indicating TDF/FTC (Truvada) prescription for treatment of HIV infection or active hepatitis B infection from Step 1.
3. Subtract persons prescribed TDF/FTC (Truvada) for 30 days or less consistent with postexposure prophylaxis from Step 2.
4. Obtain national estimates using proprietary weighting variables.

Clinical practice guidelines for PrEP were released in 2014, so the baseline for this indicator was set for that year to best project the target for 2020.

Using the same analysis methods and algorithm, it may be possible to include data from additional payer data sources in future years when calculating this indicator to obtain a more complete assessment of PrEP use across a broader population reference group (see Data Source Limitations for examples). In addition, use of data sources other than MarketScan may be warranted in future years. Particularly useful would be those that allow for stratification by key demographic variables that may point to disparities in PrEP use, such as race/ethnicity or geographic area of residence. State and local areas may want to consider monitoring PrEP use with data sources available to them, such as state Medicaid data.

The target of achieving a 500 percent increase by 2020 can be applied to the 2014 baseline year for any database measuring the number of PrEP prescriptions. This may be helpful for state and local jurisdictions to monitor PrEP use in their areas.

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available.



## **INDICATOR 13** (DEVELOPMENTAL)

**Decrease stigma among persons with diagnosed HIV infection by at least 25 percent.**

### NATIONAL HIV/AIDS STRATEGY GOAL

Reducing HIV-Related Disparities and Health Inequities.

### DEVELOPMENTAL INDICATOR

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available.

### INDICATOR RATIONALE

HIV stigma can have a negative effect on psychological well-being, access to HIV care, and health outcomes among persons living with HIV. The National HIV/AIDS Strategy notes that stigma and discrimination must be eliminated in order to diminish barriers to HIV prevention, testing, and care. In recognition of the ways that people living with HIV may experience stigma related to race/ethnicity, sexual orientation, gender identity, and stigma related to co-occurring conditions such as substance use and mental disorders, the Strategy notes that it is “imperative that all levels of government recognize that various biases exist and work to combat stigma and discrimination in order to reduce new infections and improve health outcomes for people living with HIV.”

This developmental indicator measures HIV stigma among persons with diagnosed HIV infection. There are many dimensions to HIV stigma such as community attitudes about HIV and persons living with HIV, stigma experienced in the health care setting, and structural stigma (social norms or policies that discriminate against people with HIV). This indicator measures experiences with stigma among persons with diagnosed HIV infection using the Medical Monitoring Project (MMP) as the data source. The MMP survey includes a scale that measures four dimensions of HIV stigma: personalized stigma, disclosure concerns, negative self-image, and perceived public attitudes about people with HIV.

### BASELINE YEAR

2015

### NUMERATOR

The median score of a 10-item stigma scale, ranging from 0 (no stigma) to 100 (high stigma), measured among persons aged  $\geq 18$  years with diagnosed HIV infection living in the United States and Puerto Rico.

## DENOMINATOR

None.

## DATA SOURCE

Medical Monitoring Project (MMP).

## DATA AVAILABILITY

Data are expected to be released annually by CDC.

## POPULATION COVERAGE

MMP uses two-stage sampling to achieve annual representative samples of all HIV-diagnosed persons aged  $\geq 18$  years in the United States and Puerto Rico. The jurisdictions that provide the relevant data account for 80 percent of the total number of persons living with diagnosed HIV infection in the United States. These include: California, Delaware, Florida, Georgia, Illinois, Indiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Puerto Rico, Texas, Virginia, Washington, Chicago, Houston, Los Angeles County, New York City, Philadelphia, and San Francisco.

## DATA SOURCE LIMITATIONS

The personalized stigma items, which comprise three items of the 10-item stigma scale, do not specify a current time period for reporting the experience of stigma; this may result in the stigma scale being less sensitive to changes in stigma over time. Self-reported data may be subject to social response bias.

## ANNUAL TARGETS

The annual targets were based on apportioning the total amount of change in the indicator (i.e., 25 percent reduction in the median score) over the 5 year period such that 15 percent of the total change would occur in the first two years, 20 percent of the change in the third year, and 25 percent of the change in each of the two final years.

2015	2016	2017	2018	2019	2020
40.0	38.5	37.0	35.0	32.5	30.0

## REFERENCES AND RELATED MATERIALS

Starting in 2017, data for this indicator will be included in an HIV Surveillance Supplemental Report that is released annually. The most recent reference for that report (not including the data on HIV stigma) is: *Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2014. HIV Surveillance Supplemental Report 2016;21(No. 4). www.cdc.gov/hiv/library/reports/surveillance/. Published July 2016.*

The HIV stigma scale utilized for this indicator is discussed in Wright K, Naar-King S, Lam P, Templin T, Frey M. Stigma scale revised: reliability and validity of a brief measure of stigma for HIV+ youth. *J Adolesc Health.* 2007 Jan;40(1).

## NOTES

The indicator target of reducing stigma by 25 percent over the 5-year period of 2015–2020 is ambitious given the shortened time frame (other indicators set targets for a 10-year period from 2010–2020) as well as the limited number of stigma reduction efforts in the current Federal Action Plan. Given the growing recognition of the role stigma may play in achieving national and global goals for the response to HIV, concerted efforts on a wide-ranging scale will be needed.

The HIV stigma scale was included in the MMP survey starting in 2015, so the baseline for this indicator was set for that year. The annual targets are based on unweighted 2015 MMP data and will be adjusted when the weighting is completed in 2017.

In future years, the MMP survey will include a question to assess a timeframe for the questions measuring personalized stigma (e.g., whether this occurred in the 12 months prior to the interview). When sufficient data has accrued after a few years, trends for each subscale should be assessed separately to determine the extent to which progress towards the 2020 target may differ across the four subscales.

While this stigma scale and MMP as the data source were selected for the National HIV/AIDS Strategy indicator, other measures of stigma are important to understanding the success of our work towards improving health outcomes for persons living with HIV. Validated scales or simple questions can be used to measure various types of stigma at the jurisdictional level or in clinical and programmatic settings.

This is a developmental indicator. Work to define the indicators and data sources will continue over the next few years and the indicators may change as additional or different data become available. As the body of evidence grows for validated stigma measures and the effectiveness of stigma-reduction interventions, the indicator might be revisited or other measures considered to monitor the National HIV/AIDS Strategy.

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