



Centers for Disease Control and Prevention

National HIV Prevention Progress Report, 2013

Technical Notes



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

These Technical Notes provide detailed information about the indicators described in the CDC National HIV Prevention Progress Report, 2013. Additional information about the methods, data systems, and results are available in the references cited for each indicator.

Reduce New HIV Infections

Objective: By 2015, reduce the annual number of new HIV infections by 25%

Indicator: Estimated number of new HIV infections among persons aged 13 years and older in the United States¹ in the calendar year

Data Source: National HIV Surveillance System (NHSS)—HIV Incidence Surveillance

Indicator Notes: CDC's HIV incidence surveillance incorporates into routine case surveillance the collection of data on HIV testing and antiretroviral use history and results from the serologic testing algorithm for recent HIV seroconversion (STARHS) in the states and cities that conduct HIV incidence surveillance. These data are used to generate annual estimates of the number of new HIV infections. This includes those who had been diagnosed with HIV and those whose HIV infection was undiagnosed. Using a complex statistical model, CDC extrapolates data from the 25 jurisdictions that conduct incidence surveillance to yield a national estimate for the 50 states and the District of Columbia.

Target Setting: The baseline year was established as 2006 in the National HIV/AIDS Strategy and was adopted for the DHAP Strategic Plan. The 2006 estimate was updated in 2011 by Prejean and colleagues, resulting in a revised 2006 estimate of 48,600 new infections. This estimate was used as the baseline. The 2015 goal of 36,450 or fewer new infections reflects a 25% overall decrease from the baseline. The annual target for 2010 is the same as the 2006 baseline (48,600 new infections); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (47,990); 2012 (46,170); 2013 (43,740); 2014 (40,090).

References:

CDC. Estimated HIV incidence among adults and adolescents in the United States, 2007-2010. *HIV Surveillance Supplemental Report 2012*;17(4). http://www.cdc.gov/hiv/pdf/statistics_hssr_vol_17_no_4.pdf. Published December 2012. Accessed August 20, 2013.

Prejean J, Song R, Hernandez A, Ziebell R, Green T, Walker F, Lin L, An Q, Mermin J, Lansky A, Hall HI. Estimated HIV incidence in the United States, 2006-2009. *PLoS ONE*. 2011;6(8):e17502.

Increase Knowledge of HIV-Positive Status

Objective: By 2015, increase the percentage of people living with HIV who know their serostatus to 90%

Indicator: Percentage of HIV-infected persons aged 13 years and older who are aware of their HIV status

¹ The United States refers to the 50 states and the District of Columbia. Where indicator data are available for the United States and US dependent areas, they are presented for the United States and US dependent areas. The Technical Notes provide the geographic specification for each indicator.

Numerator: Estimated number of persons aged 13 years and older who have been diagnosed with HIV in the calendar year

Denominator: Estimated number of persons aged 13 years and older who were living with HIV infection in the United States in the calendar year. This includes those who had been diagnosed with HIV as well as those whose HIV infection was undiagnosed.

Data source: National HIV Surveillance System (NHSS)—HIV Case Surveillance

Indicator Notes: HIV surveillance data for adults and adolescents (aged 13 years and older) from the 50 states and the District of Columbia were used to estimate HIV prevalence (the total number of people living with HIV). An extended back-calculation model was used that considers the estimated annual number of HIV diagnoses, stage of disease at diagnosis, and the number of deaths among persons with HIV infection. The number of people living with HIV infection who are unaware of their infection is calculated by subtracting the number of people living with diagnosed HIV infection from the overall HIV prevalence estimate. This estimate is based on HIV diagnoses, not individual awareness of HIV status. Some people who were diagnosed with HIV may be unaware of their HIV status because they did not receive their test results.

Target Setting: The baseline year was established as 2006 in the National HIV/AIDS Strategy (NHAS) and was adopted for the DHAP Strategic Plan. The updated 2006 estimate reported in 2013 (80.9%) was used as the baseline. The 2015 goal of 90.0% was set in NHAS. The annual target for 2010 is the same as the 2006 baseline (80.9%); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (81.4%); 2012 (82.7%); 2013 (84.5%); 2014 (87.3%).

Reference:

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 dependent areas—2011. *HIV Surveillance Supplemental Report* 2013;18(5). http://www.cdc.gov/hiv/pdf/2011_Monitoring_HIV_Indicators_HSSR_FINAL.pdf. Published October 2013. Accessed October 31, 2013.

Reduce Late Stage HIV Diagnosis

Objective: By 2015, reduce the percentage of people with a diagnosis of stage-3 HIV infection (AIDS) within 3 months after HIV diagnosis by 25%

Indicator: Percentage of persons aged 13 years and older newly diagnosed with HIV infection at stage-3 (AIDS) within 3 months after initial HIV diagnosis

Numerator: Estimated number of persons aged 13 years and older who were diagnosed with stage-3 HIV infection (AIDS) within 3 months after initial HIV diagnosis in the calendar year

Denominator: Estimated number of persons aged 13 years and older who were diagnosed with HIV infection in the United States and 6 US dependent areas² in the calendar year

Data Source: National HIV Surveillance System (NHSS)—HIV Case Surveillance

² The 6 US dependent areas are American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the US Virgin Islands.

Indicator Notes: In 2012, this objective and the indicator were revised to align with the new HHS core indicators, to reflect a decrease in the percentage of people with a late HIV diagnosis instead of an increase in the percentage of people diagnosed with HIV at earlier stages of disease. Stage-3 (AIDS) within 3 months after diagnosis is based on CD4 data or documentation of an AIDS-defining condition. This information is reported to CDC by all 50 states, the District of Columbia, and 6 US dependent areas.

Target Setting: The baseline year was established as 2010 by DHAP. This is the most recent year prior to the implementation of the DHAP Strategic Plan for which data are available. The 2015 goal (19.1%) reflects a 25% overall decrease from the baseline. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (25.1%); 2012 (24.0%); 2013 (22.9%); 2014 (21.0%).

Reference:

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 dependent areas—2011. *HIV Surveillance Supplemental Report*. 2013;18(5). http://www.cdc.gov/hiv/pdf/2011_Monitoring_HIV_Indicators_HSSR_FINAL.pdf. Published October 2013. Accessed October 31, 2013.

Reduce Perinatal HIV Transmission

Objective: By 2015, reduce the perinatal HIV transmission rate by 25%

Indicator: Number of perinatally acquired pediatric HIV cases per 100,000 live births

Numerator: Estimated number of infants diagnosed with perinatally acquired HIV infections in the calendar year

Denominator: Estimated number of live births in the United States in the calendar year

Data system: National HIV Surveillance System (NHSS)—HIV Case Surveillance

Indicator Notes: The perinatal HIV transmission rate is estimated using data about mothers and infants with a diagnosis of HIV infection, regardless of their stage of disease at diagnosis. The data are from the 50 states and the District of Columbia. They are statistically adjusted to account for delays between birth and diagnosis date, as well as between diagnosis and reporting of HIV infection. This does not include adjustments for incomplete reporting. These data are for black/African American, Hispanic/Latino, and white mothers and infants. Live birth data reflect the race/ethnicity of the mother.

Target Setting: The baseline year was established as 2008 by DHAP. When the DHAP Strategic Plan was released, the updated 2008 estimate reported in 2013 (6.8 perinatal transmissions per 100,000 live births) was used as the baseline. The 2015 goal (5.1) reflects a 25% overall decrease from the baseline. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (6.7); 2012 (6.5); 2013 (6.1); 2014 (5.6).

References:

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 dependent areas—2011. *HIV Surveillance Supplemental Report* 2013;18(5). http://www.cdc.gov/hiv/pdf/2011_Monitoring_HIV_Indicators_HSSR_FINAL.pdf. Published October

2013. Accessed October 31, 2013.

Nesheim S, Taylor A, Lampe MA, Kilmarz PH, Harris, LF, Whitmore S, Griffith J, Thomas-Proctor M, Fenton K, Mermin J. A framework for elimination of perinatal HIV transmission in the United States. *Pediatrics*. 2012;130:738-744.

Reduce Sexual Risk Behavior among MSM

Objective: By 2015, reduce the percentage of men who have sex with men (MSM) who report unprotected anal intercourse with a male sex partner of discordant or unknown HIV status during their last sexual encounter by 25%

Indicator: Percentage of MSM who reported unprotected anal intercourse with a male sex partner of discordant or unknown HIV status during their last sexual encounter

Numerator: Number of MSM who reported unprotected anal intercourse (defined as not using a condom or not using a condom the whole time during receptive or insertive anal sex) with a partner of discordant or unknown HIV status during their last sexual encounter

Denominator: Number of male, eligible participants in the National HIV Behavioral Surveillance System with complete, valid interview data who reported having sex with another man in the past 12 months

Data source: National HIV Behavioral Surveillance System (NHBS)

- NHBS MSM Cycle 2: conducted in 21 US cities from June to December 2008
- NHBS MSM Cycle 3: conducted in 20 US cities from July to December 2011

Indicator Notes: Data are collected in cities with a high burden of AIDS in venues frequented by gay, bisexual, and other MSM. The second MSM cycle of NHBS in 2008 included: Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Denver, Colorado; Detroit, Michigan; Houston, Texas; Los Angeles, California; Miami, Florida; Nassau-Suffolk, New York; New Orleans, Louisiana; New York City, New York; Newark, New Jersey; Philadelphia, Pennsylvania; Saint Louis, Missouri; San Diego, California; San Francisco, California; San Juan, Puerto Rico; Seattle, Washington; and Washington DC. The third MSM cycle of NHBS in 2011 included all the cities in the second cycle except Saint Louis, Missouri. To be eligible, respondents had to be male, 18 years of age or older, live in the local area, be able to complete the interview in English or Spanish, and report having had sex with another man in the past 12 months. Analyses were limited to participants with complete, valid interview data. Participants provided information about their own and their last sex partner's HIV status. For participants who said they were HIV positive, a sex partner with a discordant HIV status was one who was reported to be HIV negative. For men who said they were HIV negative, a sex partner with a discordant HIV status was someone who was described as HIV positive. Partners of unknown HIV status include those who did not know their HIV status or did not disclose their HIV status to the participant. Unprotected anal sex refers to either insertive or receptive anal sex without a condom.

Target Setting: The baseline year was established as 2008 by DHAP. This is the most recent year prior to the implementation of the DHAP Strategic Plan for which data are available. The 2008 result (13.7%) was used as the baseline. The 2015 goal (10.3%) reflects a 25% overall decrease from the baseline. Annual targets for 2011 and 2014 (the years during the DHAP Strategic Plan in which NHBS data are collected for MSM) assume an accelerating rate of change over time and are based on the formula used to set annual targets for other indicators. Based on these assumptions, it was anticipated that 5% of the total change expected by the end of 2015 would be seen in the 2011 data and that 70% of the overall change would be seen in the 2014 data. Based on these assumptions, the current annual targets are 13.5% for

2011 and 11.3% for 2014.

References:

NHBS Data Request—October 16, 2012

CDC. HIV risk, prevention, and testing behaviors among men who have sex with men—National HIV Behavioral Surveillance System, 21 U.S. cities, United States, 2008. *MMWR Surveillance Summary*. 2011;60.

MacKellar DA, Gallagher K, Finlayson T, Sanchez T, Lansky A, Sullivan PS. Surveillance of HIV risk and prevention behaviors of men who have sex with men—A national application of venue-based, time-space sampling. *Public Health Reports*. 2007;122(Suppl1):39-47.

CDC. HIV testing among men who have sex with men—21 cities, United States, 2008. *MMWR*. 2011;60(21):694-699.

Reduce Sexual or Injection Risk Behavior among IDUs

Objective: By 2015, reduce the percentage of injection drug users (IDUs) who report risky sexual or drug injection behavior during the past 12 months by 25%

Indicator: Percentage of IDUs who reported risky sexual or drug injection behavior in the past 12 months

Numerator: Number of eligible male and female IDUs who reported risky sexual behavior (defined as vaginal or anal sex without a condom with a partner of the opposite sex regardless of HIV status) or risky drug injection (defined here as using a needle after someone else had used it to inject) in the past 12 months

Denominator: Number of eligible male and female participants in the National HIV Behavioral Surveillance System with complete, valid interview data who reported injecting drugs in the past 12 months and who did not report a previous HIV-positive test result

Data source: National HIV Behavioral Surveillance System (NHBS)

- NHBS IDU Cycle 1: conducted in 23 US cities from May 2005 to February 2006
- NHBS IDU Cycle 2: conducted in 21 US cities from June to December 2009

Indicator Notes: Data are collected in cities with a high burden of AIDS. The first IDU cycle of NHBS in 2005-2006 included the following cities: Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Denver, Colorado; Detroit, Michigan; Fort Lauderdale, Florida; Houston, Texas; Las Vegas, Nevada; Los Angeles, California; Miami, Florida; Nassau-Suffolk, New York; New Haven, Connecticut; New York City, New York; Newark, New Jersey; Norfolk, Virginia; Philadelphia, Pennsylvania; Saint Louis, Missouri; San Diego, California; San Francisco, California; San Juan, Puerto Rico; and Seattle, Washington. The second IDU cycle of NHBS in 2009 included all the cities in the first cycle (except Fort Lauderdale, Florida; Las Vegas, Nevada; New Haven, Connecticut; and Norfolk, Virginia) plus New Orleans, Louisiana and Washington, DC. Data are collected using respondent driven sampling, a method in which potential respondents are recruited by their peers. Males and females were eligible to participate if they were 18 years of age or older, lived in the local area, could complete the interview in English or Spanish, and reported injecting drugs in the past 12 months. Analyses were limited to participants with complete, valid data who did not report a previous HIV-positive test result. Risky sexual behavior was defined as vaginal or anal sex without a condom with a partner of the opposite sex, regardless of HIV status, during the past 12 months. Risky drug use behavior was defined for this indicator as using a needle after someone else had used it to inject.

Target Setting: The baseline year was established as 2006 by DHAP. At the time the 2015 goal was

established, this was the most recent year of data available prior to implementation of the DHAP Strategic Plan. The 2006 estimate of 73.1% was used as the baseline. The 2015 goal (55.0%) reflects a 25% overall decrease from the baseline. The annual target for 2012 (the year during the DHAP Strategic Plan for which NHBS data are collected for IDUs) assumes an accelerating rate of change over time and is based on the formula used to set annual targets for other indicators. It was anticipated that 20% of the total expected change would be seen in the 2012 data. Based on this assumption, the annual target for 2012 is 69.4%.

References:

NHBS Data Request—October 23, 2012

CDC. HIV-associated behaviors among injecting-drug users—23 cities, United States, May 2005-February 2006. *MMWR*. 2009;58(13):329-332. Errata: *MMWR*. 2009;58(50):1416.

CDC. HIV infection and HIV-associated behaviors among injecting-drug users—20 cities, United States, 2009. *MMWR*. 2012;61:133-138.

Lansky A, Abdul-Quader AS, Cribbin M, Hall T, Finlayson TJ, Garfein RS, Lin L, Sullivan PS. Developing an HIV behavioral surveillance system for injecting drug users: The National HIV Behavioral Surveillance System. *Public Health Reports*. 2007;122(Suppl1):48-55.

Reduce HIV Transmission

Objective: By 2015, reduce the HIV transmission rate by 25%

Indicator: Estimated number of new HIV infections per 100 persons aged 13 years and older living with HIV

Numerator: Estimated number of new HIV infections among persons aged 13 years and older in the calendar year

Denominator: Estimated number of persons aged 13 years and older living with HIV infection (diagnosed and undiagnosed) in the United States in the calendar year

Data source: National HIV Surveillance System (NHSS)—HIV Case Surveillance and HIV Incidence Surveillance

Indicator Notes: The HIV transmission rate represents the number of new HIV infections per 100 people living with HIV in a given year. It is calculated by dividing the number of new HIV infections in a year (HIV incidence) by the total number of people living with HIV in that year (HIV prevalence), and multiplying the result by 100. The estimated number of new HIV infections is based on the collection of data on HIV testing and antiretroviral use history as well as results from the serologic testing algorithm for recent HIV seroconversion (STARHS) methodology. These data are collected by 25 jurisdictions that conduct incidence surveillance and are used to estimate the total number of new HIV infections in the 50 states and the District of Columbia. The total number of people living with HIV in the 50 states and the District of Columbia is estimated using an extended back-calculation model that considers the estimated annual number of HIV diagnoses, stage of disease at diagnosis, and the number of deaths among persons with HIV infection. Although subgroup data are available for HIV incidence and HIV prevalence, the HIV transmission rate is not calculated for specific subgroups. HIV transmissions occur across subgroups—it cannot be assumed that the characteristics of the person who transmitted HIV are the same as the person who acquired it.

Target Setting: The baseline year was established as 2006 in the National HIV/AIDS Strategy and was

adopted for the DHAP Strategic Plan. The updated 2006 estimate reported in 2012 (4.6) was used as the baseline. The 2015 goal (3.2) reflects a 25% overall decrease from the baseline. The annual target for 2010 is the 2006 baseline (4.6); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (4.5); 2012 (4.3); 2013 (4.0); 2014 (3.6).

References:

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 U.S. dependent areas—2010. *HIV Surveillance Supplemental Report 2012*;17(3) Part A. http://www.cdc.gov/hiv/pdf/statistics_2010_HIV_Surveillance_Report_vol_17_no_3.pdf. Published June 2012. Access August 20, 2013.

CDC. Estimated HIV incidence among adults and adolescents in the United States, 2007-2010. *HIV Surveillance Supplemental Report 2012*;17(4). http://www.cdc.gov/hiv/pdf/statistics_hssr_vol_17_no_4.pdf. Published December 2012. Accessed August 20, 2013.

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 dependent areas—2011. *HIV Surveillance Supplemental Report*. 2013;18(5). http://www.cdc.gov/hiv/pdf/2011_Monitoring_HIV_Indicators_HSSR_FINAL.pdf. Published October 2013. Accessed October 31, 2013.

Increase Linkage to HIV Medical Care

Objective: By 2015, increase the percentage of persons diagnosed with HIV who are linked to HIV medical care within 3 months after diagnosis to 85%

Indicator: Percentage of HIV-diagnosed persons who are linked to HIV medical care as evidenced by having had a CD4 count or HIV viral load measure within 3 months after diagnosis

Numerator: Estimated number of persons aged 13 years and older newly diagnosed with HIV in the calendar year with a CD4 count or HIV viral load measure within 3 months after diagnosis

Denominator: Estimated number of persons aged 13 years and older newly diagnosed with HIV in the calendar year (regardless of stage of disease at diagnosis) in jurisdictions that reported all CD4 and HIV viral load test results to CDC

Data source: National HIV Surveillance System (NHSS)—HIV Case Surveillance

Indicator Notes: Linkage to HIV medical care was based on data for persons with HIV infection diagnosed in the jurisdictions that reported all CD4 and HIV viral load test results to CDC. This included, in 2009, 13 jurisdictions—California (San Francisco only); Delaware; Indiana; Iowa; Kentucky; Missouri; Nebraska; New York (excluding New York City); North Dakota; South Carolina; West Virginia; Wyoming; and the District of Columbia; in 2010, 14 jurisdictions—all reporting in 2009 (except Kentucky) plus Illinois and Minnesota; in 2011, 19 jurisdictions—all reporting in 2010 plus Georgia, Hawaii, Louisiana, Michigan, New Hampshire, New York (including New York City), and California (including only San Francisco and Los Angeles County). These data represent the best national estimate of linkage to care that is currently available. The representativeness of these data will improve over time as the number of jurisdictions reporting complete CD4 and HIV viral load data to CDC increases. People were considered

linked to HIV medical care if laboratory data were reported showing that they had at least 1 CD4 or viral load test performed within 3 months after initial HIV diagnosis. Results for this indicator can be affected by changes in linkage to care, the number of areas reporting data, and completeness of laboratory reporting.

Target Setting: The National HIV/AIDS Strategy established the baseline at 65.0% for the year 2006. It also set the 2015 goal at 85.0%. This baseline and goal were adopted for the DHAP Strategic Plan. The annual target for 2010 is the 2006 baseline (65.0%); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (66.0%); 2012 (69.0%); 2013 (73.0%); 2014 (79.0%).

References:

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 dependent areas—2011. *HIV Surveillance Supplemental Report*. 2013;18(5). http://www.cdc.gov/hiv/pdf/2011_Monitoring_HIV_Indicators_HSSR_FINAL.pdf. Published October 2013. Accessed October 31, 2013.

CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data: United States and 6 U.S. dependent areas—2010. *HIV Surveillance Supplemental Report* 2013;18(2) Part B. http://www.cdc.gov/hiv/pdf/statistics_2010_HIV_Surveillance_Report_vol_18_no_2.pdf. Published January 2013. Accessed August 20, 2013.

Mahle Gray K, Tang T, Shouse L, Li J, Mermin J, Hall HI. Using the HIV surveillance system to monitor the National HIV/AIDS Strategy. *AJPH*. 2012;103:141-147.

Increase Viral Suppression among Persons in HIV Medical Care

Objective: By 2015, increase the percentage of HIV-diagnosed persons in HIV medical care with a suppressed viral load by 10%

Indicator: Percentage of HIV-diagnosed adults in HIV medical care whose most recent HIV viral load test in the past 12 months showed that HIV viral load was suppressed

Numerator: Estimated number of HIV-diagnosed adults aged 18 years and older in HIV medical care whose most recent viral load test in the past 12 months showed that HIV viral load was suppressed (defined as undetectable or with 200 or fewer copies of HIV per milliliter of plasma)

Denominator: Estimated number of HIV-diagnosed adults aged 18 years and older in HIV medical care in the United States and Puerto Rico in the first four months of the calendar year

Data source: Medical Monitoring Project (MMP)

Indicator Notes: Data from MMP are based on a three-stage sampling approach that is designed to produce nationally representative information about adults receiving HIV medical care in the United States and Puerto Rico. Data are collected for samples of patients at outpatient HIV medical care facilities. Since 2009, 23 jurisdictions have been funded to participate in MMP activities. These jurisdictions include 16 states (California, Delaware, Florida, Georgia, Illinois, Indiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Texas, Virginia, and Washington); 6 cities/counties (Chicago, Illinois; Houston, Texas; Los Angeles County, California; New

York City, New York; Philadelphia, Pennsylvania; and San Francisco, California); and Puerto Rico. To be included, patients must be at least 18 years old, diagnosed with HIV, and have received HIV medical care at least once from January to April of the calendar year. Trained staff collect data through face-to-face interviews and medical record abstraction. These data are weighted to produce national estimates.

The data used for this indicator are based on medical records. Viral suppression is defined as having an HIV viral load test result in the past 12 months that was undetectable or less than 200 copies/mL of plasma.

Target Setting: The baseline year was established as 2009 in the DHAP Strategic Plan. The 2009 estimate (71.6%) was used as the baseline. The 2015 goal (78.8%) reflects a 10% overall increase from the baseline. The annual target for 2010 is the 2009 baseline (71.6%); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time, and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (72.0%); 2012 (73.0%); 2013 (74.5%); 2014 (76.6%).

References:

MMP Data Request—November 2012

Frankel MR, McNaghten A, Shapiro MF, Sullivan PS, Berry SH, Johnson CH, Flagg EW, Morton S, Bozzette SA. A probability sample for monitoring the HIV-infected population in care in the U.S. and in selected states. *Open AIDS J.* 2012;6(Suppl1):67-76.

Skarbinski, J, Furlow-Parmely C, Frazier E. Nationally Representative Estimates of Quality of HIV Care in the United States: Data from the Medical Monitoring Project, 2009. *Conference on Retroviruses and Opportunistic Infections (CROI).* Atlanta, GA. March 3-6, 2013.

Reduce Sexual Risk Behavior among Persons in HIV Medical Care

Objective: By 2015, reduce the percentage of HIV-diagnosed persons in HIV medical care who report unprotected anal or vaginal intercourse during the past 12 months with a partner of discordant or unknown HIV status by 33%

Indicator: Percentage of HIV-diagnosed adults in HIV medical care who report unprotected anal or vaginal intercourse in the past 12 months with a partner of discordant or unknown HIV status

Numerator: Estimated number of HIV-diagnosed adults aged 18 years and older in HIV medical care who report unprotected anal or vaginal intercourse in the last 12 months with a partner of discordant or unknown HIV status

Denominator: Estimated number of HIV-diagnosed adults aged 18 years and older in HIV medical care in the first four months of the calendar year in the United States and Puerto Rico

Data source: Medical Monitoring Project (MMP)

Indicator Notes: Data from MMP are based on a three-stage-sampling approach that is designed to produce nationally representative information about adults receiving HIV medical care in the United States and Puerto Rico. Data are collected for samples of patients at outpatient HIV medical care facilities. Since 2009, 23 jurisdictions have been funded to participate in MMP activities. These jurisdictions include 16 states (California, Delaware, Florida, Georgia, Illinois, Indiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Texas, Virginia, and

Washington); 6 cities/counties (Chicago, Illinois; Houston, Texas; Los Angeles County, California; New York City, New York; Philadelphia, Pennsylvania; and San Francisco, California); and Puerto Rico. To be included, patients must be at least 18 years old, diagnosed with HIV, and have received HIV medical care at least once from January to April of the calendar year. Trained staff collect data through face-to-face interviews and medical record abstraction. These data are weighted to produce national estimates.

This indicator is based on self-reported data from the face-to-face interviews. A discordant partner was a sex partner that the interview participant reported as being HIV negative. Partners of unknown HIV status include those who did not know their HIV status or did not disclose their status to the interview participant. This indicator measures unprotected sex (insertive anal sex, receptive anal sex or vaginal sex without a condom) and does not take HIV treatment, viral load, or other factors that affect HIV transmission into account.

Target Setting: The baseline year was established as 2009 in the DHAP Strategic Plan. The 2009 estimate (12.9%) was used as the baseline. The 2015 goal (8.6%) reflects a 33% overall decrease from the baseline. The annual target for 2010 is the same as the 2009 baseline (12.9%); it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets for 2011 through 2014 assumed an accelerated rate of change over time and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the current annual targets are: 2011 (12.7%); 2012 (12.1%); 2013 (11.2%); 2014 (9.9%).

References:

MMP Data Request—November 2012

Frankel MR, McNaghten A, Shapiro MF, Sullivan PS, Berry SH, Johnson CH, Flagg EW, Morton S, Bozette SA. A probability sample for monitoring the HIV-infected population in care in the U.S. and in selected states. *Open AIDS J.* 2012;6(Suppl1):67-76.

Reduce HIV-Related Disparities: New HIV Infections

Objective: By 2015, reduce the annual number of new HIV infections among men who have sex with men (MSM), injection drug users (IDUs), blacks/African Americans, and Hispanics/Latinos by at least 25% in each group

Indicator: Estimated number of new HIV infections among MSM, IDUs, blacks/African Americans, and Hispanics/Latinos aged 13 years and older in the United States in the calendar year

Data Source: National HIV Surveillance System (NHSS)—HIV Incidence Surveillance

Indicator Notes: CDC's HIV incidence surveillance incorporates into routine case surveillance the collection of data on HIV testing and antiretroviral use history and results from the serologic testing algorithm for recent HIV seroconversion (STARHS) in the states and cities that conduct HIV incidence surveillance. These data are used to generate annual estimates of the number of new HIV infections. This includes those who had been diagnosed with HIV and those whose HIV infection was undiagnosed. Using a complex statistical model, CDC extrapolates data from the 25 jurisdictions that conduct incidence surveillance to yield a national estimate for the 50 states and the District of Columbia. This includes estimates by age, race/ethnicity, sex, and transmission category.

Target Setting: The baseline year was established as 2006 in the DHAP Strategic Plan. This is consistent with the baselines established in the National HIV/AIDS Strategy and the DHAP Strategic Plan for the

overall number of new HIV infections in the United States. The updated 2006 incidence estimates reported in 2011 by Prejean and colleagues (28,900 for MSM; 5,300 for IDUs; 21,200 for blacks/African Americans; 9,000 for Hispanics/Latinos) were used as the baseline for each group. The 2015 goal (21,675 for MSM; 3,975 for IDUs; 15,900 for blacks/African Americans; 6,750 for Hispanics/Latinos) reflects a 25% overall decrease from the baseline for each group. The annual target for 2010 is the same as the 2006 baseline for each group; it assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the annual targets for MSM are: 2011 (28,539); 2012 (27,455); 2013 (26,010); 2014 (23,843). The annual targets for IDUs are: 2011 (5,234); 2012 (5,035); 2013 (4,770); 2014 (4,373). The annual targets for blacks/African Americans are: 2011 (20,935); 2012 (20,140); 2013 (19,080); 2014 (17,490). The annual targets for Hispanics/Latinos are: 2011 (8,888); 2012 (8,550); 2013 (8,100); 2014 (7,425).

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Reduce HIV-Related Disparities: Linkage to HIV Medical Care

Objective: By 2015, increase the percentage of persons diagnosed with HIV who are linked to HIV medical care within 3 months after diagnosis to 85% or greater for all racial/ethnic groups

Indicator: Percentage of newly diagnosed blacks/African Americans, Hispanics/Latinos, whites, and persons of other races/ethnicities who are linked to HIV medical care as evidenced by having had a CD4 count or HIV viral load measure within 3 months after diagnosis

Numerator: Estimated number of blacks/African Americans, Hispanics/Latinos, whites, and persons of other races/ethnicities aged 13 years and older who are newly diagnosed with HIV in the calendar year and have been linked to HIV medical care (as evidenced by having had a CD4 count or viral load measure within 3 months after diagnosis)

Denominator: Estimated number of blacks/African Americans, Hispanics/Latinos, whites, and persons of other races/ethnicities aged 13 years and older who were newly diagnosed with HIV in the calendar year (regardless of stage of disease at diagnosis) in jurisdictions that reported all CD4 and viral load test results to CDC

Data source: National HIV Surveillance System (NHSS)—HIV Case Surveillance

Indicator Notes: Linkage to HIV medical care was based on data for blacks/African Americans, Hispanics/Latinos, whites, and persons of other races/ethnicities with HIV infection diagnosed in the jurisdictions that reported all CD4 and viral load test results to CDC. This included, in 2009, 13 jurisdictions—California (San Francisco only); Delaware; Indiana; Iowa; Kentucky; Missouri; Nebraska; New York (excluding New York City); North Dakota; South Carolina; West Virginia; Wyoming; and the District of Columbia; in 2010, 14 jurisdictions—all reporting in 2009 (except Kentucky) plus Illinois and

Minnesota; in 2011, 19 jurisdictions—all reporting in 2010 plus Georgia, Hawaii, Louisiana, Michigan, New Hampshire, New York (including New York City), and California (including only San Francisco and Los Angeles County). These data represent the best national estimates of linkage to HIV medical care that are currently available. People were considered linked to HIV medical care if laboratory data were reported showing that they had at least 1 CD4 or VL test performed within 3 months after initial HIV diagnosis. Results for this indicator can be affected by changes in linkage to care, the number of areas reporting data, and completeness of laboratory reporting.

Target Setting: The baseline year was established as 2010 by DHAP. The 2015 goal was set by DHAP before data were available at 75.0% or greater for all racial/ethnic groups. The 2015 goal has been re-set to 85% or greater in all racial/ethnic groups. This aligns with the 2015 goal established in the National HIV/AIDS Strategy and the DHAP Strategic Plan for the nation as a whole. Annual targets assume an accelerating rate of change over time and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the annual targets for blacks/African Americans are: 2011 (77.3%); 2012 (78.5%); 2013 (80.1%); 2014 (82.6%). The annual targets for Hispanics/Latinos are: 2011 (83.2%); 2012 (83.5%); 2013 (83.9%); 2014 (84.4%). The annual targets for whites are: 2011 (83.6%); 2012 (83.8%); 2013 (84.1%); 2014 (84.6%). The annual targets for persons of other races/ethnicities are set to maintain the 85.0% goal.

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Reduce HIV-Related Disparities:

Viral Suppression among HIV-Diagnosed Persons

Objective: By 2015, increase the percentage of HIV-diagnosed men who have sex with men (MSM), blacks/African Americans, and Hispanics/Latinos with a suppressed viral load by at least 20%

Indicator: Percentage of HIV-diagnosed MSM, blacks/African Americans, or Hispanics/Latinos aged 18 years and older whose most recent HIV viral load test in the past 12 months showed that HIV was suppressed

Numerator: Estimated number of HIV-diagnosed adult MSM, blacks/African Americans, or Hispanics/Latinos aged 18 years and older in HIV medical care whose most recent viral load test in the past 12 months showed that HIV was suppressed (defined as undetectable or 200 or fewer copies of HIV per milliliter of plasma)

Denominator: Estimated number of HIV-diagnosed adult MSM, blacks/African Americans, or

Hispanics/Latinos aged 18 years and older in the United States and Puerto Rico who were diagnosed with HIV prior to the start of the reporting year and were alive at the end of the reporting year

Data Sources: Medical Monitoring Project (MMP); National HIV Surveillance System (NHSS)

Indicator Notes: This indicator measures viral suppression using MMP data on HIV viral suppression from adults receiving HIV medical care and NHSS data on all people living with an HIV diagnosis. MMP data were used to estimate the number of adult MSM, blacks/African Americans, and Hispanics/Latinos receiving HIV medical care in the United States and Puerto Rico who achieved viral suppression. These data are based on medical records of HIV-diagnosed persons who received HIV medical care at least once from January to April of the calendar year. HIV viral suppression was assessed using information about the most recent HIV viral load test. Suppressed HIV viral load was defined as a result that was undetectable or 200 or fewer copies/mL. NHSS data were used to estimate the number of MSM, blacks/African Americans, and Hispanics/Latinos who had been diagnosed with HIV in the United States or Puerto Rico and were alive at the end of the calendar year.

Target Setting: Data from 2009 were used by DHAP to establish the baseline. The baseline number for each group was: 40.7% for MSM; 32.7% for blacks/African Americans; and 36.6% for Hispanics/Latinos. The 2015 goals (48.8% for MSM; 39.2% for blacks/African Americans; 43.9% for Hispanics/Latinos) reflect the 20% increase that was called for in the National HIV/AIDS Strategy and the DHAP Strategic Plan. The annual target for 2010 is the same as the 2009 baseline for each group. This assumes stability prior to the implementation of the DHAP Strategic Plan for 2011-2015. Annual targets assume an accelerating rate of change over time, and were based on the following assumptions for the percentage of total change that was expected to be achieved in a given year: 2011 (5% of total change); 2012 (15% of total change); 2013 (20% of total change); 2014 (30% of total change); 2015 (30% of total change). Based on these assumptions, the annual targets for HIV-diagnosed MSM are: 2011 (41.1%); 2012 (42.3%); 2013 (44.0%); 2014 (46.4%). The annual targets for HIV-diagnosed blacks/African Americans are: 2011 (33.0%); 2012 (34.0%); 2013 (35.3%); 2014 (37.3%). The annual targets for HIV-diagnosed Hispanics/Latinos are: 2011 (37.0%); 2012 (38.0%); 2013 (39.5%); 2014 (41.7%).

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