HIV/AIDS Surveillance

CDC HIV/AIDS Facts

July 2008

Through its national HIV/AIDS surveillance system, CDC can monitor many aspects of the HIV/AIDS epidemic, including HIV/AIDS and AIDS diagnoses, deaths among persons with AIDS, people living with HIV/AIDS or AIDS, and beginning in 2008, the number of new HIV infections. All of these components work together to provide the most complete profile of the epidemic that is possible.

Definitions

CDC publishes reported and estimated data for HIV and AIDS.

Reported cases are those that CDC receives from state and local health departments. As of 2008, all 50 states, the District of Columbia, and five US dependent areas report HIV cases to CDC.

Reported cases reflect the number of cases reported in a given year, regardless of when they were diagnosed. They are useful for monitoring the reporting and validity of a surveillance system and are the basis of the estimated cases.

Estimated cases are the reported cases after CDC has applied appropriate adjustments to them. Only states that have been conducting name-based HIV surveillance for at least four years (to date, 33 states and 5 areas) are included in the estimated data in order to allow for data adjustments and stabilization of the data. Estimated cases are considered a more accurate reflection of the epidemic than reported data because they are adjusted for reporting delays.

Estimated cases reflect the number of cases diagnosed in a given time period and are useful for planning, resource allocation, and program evaluation.

CDC monitors data on HIV, HIV/AIDS, and AIDS. Within those categories, it monitors diagnoses, deaths, prevalence, and incidence.

HIV/AIDS diagnoses are the number of individuals diagnosed with HIV, at any stage of disease, in a given time period.

- The current CDC surveillance report contains reported HIV/AIDS cases from 45 states with confidential name-based HIV infection reporting as of 2006. As of 2008, all 50 states, the District of Columbia, and five US dependent areas are now reporting HIV/AIDS cases to CDC. These data will be included in future reports.
- Estimated HIV/AIDS diagnoses currently include the 33 states with long-term name based HIV reporting (mature HIV surveillance systems) and 5 US dependent areas. The number of states represented in the estimated diagnoses will increase in the coming years as the surveillance systems mature from the states that only recently implemented a name-based surveillance system. In 2012, all 50 states, the District of Columbia, and the 5 US territories will be represented in CDC's estimated data.

Uses of these data: HIV/AIDS diagnoses data have historically served as a marker for new HIV infections (incidence). However, a person can be infected with HIV for a long time before receiving a diagnosis. Therefore, and particularly with the establishment of the new HIV incidence system, HIV/AIDS diagnoses are now best used to monitor the epidemic in younger people, who will not have been infected for very long, as well as to help correlate and monitor testing and treatment patterns. HIV/AIDS diagnoses data are also useful to monitor the HIV epidemic in local areas that do not have HIV incidence surveillance at this time. HIV diagnoses data are the basis for the incidence calculations.

AIDS diagnoses and deaths of individuals with AIDS are the number of individuals diagnosed with AIDS and the number of individuals with AIDS who have died in a given time period.

- Reported AIDS cases and deaths among persons with AIDS are from 50 states, the District of Columbia, and US dependent areas.
- Estimated AIDS diagnoses and deaths among persons with AIDS are from 50 states, the District of Columbia, and US dependent areas. Because all areas implemented AIDS reporting in the early 1980s, their AIDS data can be adjusted to arrive at the estimations.

Uses of these data: AIDS diagnoses and AIDS death data provide trends since the beginning of the epidemic and are useful to track the time from an HIV diagnoses to an AIDS diagnoses and/or death. Discrepancies between populations in time from HIV diagnoses to AIDS diagnosis or time to AIDS death will point out inequities in access to testing and care; this knowledge can help direct resource allocation.

HIV/AIDS prevalence and AIDS prevalence are the number of people living with HIV/AIDS or AIDS in a given population. CDC reports prevalence as the number of people living with HIV/AIDS or AIDS and also prevalence rates, usually calculated per 100,000 people.

Uses of these data: Prevalence is useful for planning and resource allocation. Prevalence rates are useful for comparing HIV/AIDS between populations and for monitoring trends over time.

HIV incidence is the number of new HIV infections in a specific population during a specific time period.

Uses of these data: Incidence estimates are useful for planning and allocation of funds, as well as evaluating the impact of prevention programs.

	YEARS	PROCESS	WHO PARTICIPATES	WHAT THE DATA TELL US	WHY THEY ARE IMPORTANT
AIDS Surveillance Data	1981-present	CDC receives standardized data from states, the District of Columbia, and US dependent areas. This is called reported data. CDC makes adjustments to the reported data to allow for trend comparisons and to compensate for missing information, reporting delays, or duplications. The resulting data are the estimated data.	Reported data: 50 states, District of Columbia, US dependent areas. Estimated data: 50 states, District of Columbia, US dependent areas.	The number of people, as reported to CDC, who were diagnosed, living with, or who died with AIDS in a certain time period. CDC adjusts the reported data and provides the estimated numbers of people who were diagnosed, living or who died with AIDS in a certain time period.	Knowing how many people are diagnosed with AIDS each year is important to planning and resource allocation and for monitoring trends within the epidemic and discrepancies between groups. For example, a short time between HIV diagnoses and AIDS diagnoses could imply that members of a group may not have the same access to testing or care as members of a group with a longer time between an HIV diagnoses and an AIDS diagnoses.
HIV/AIDS Surveillance Data	1985-present	In 1985, the diagnostic test for HIV was licensed. Over time, states have implemented HIV surveillance along with their AIDS surveillance. In 1994, CDC integrated the HIV reporting and AIDS reporting data systems; 25 states were initially included. CDC receives standardized data from the states, the District of Columbia, and US dependent areas. This is called reported data. CDC makes adjustments to the reported data to allow for trend comparisons and to compensate for missing information, reporting delays, or duplications. The resulting are the estimated data.	Reported data: 50 states, District of Columbia, US dependent areas.* Estimated data: 34 states, 5 US dependent areas.* * The current surveillance report, which uses 2006 data, has reported cases from 45 states and 5 US dependent areas and estimated data from 33 states and 5 US dependent areas.	The number of people, as reported to CDC, who were diagnosed or living with HIV/AIDS in a certain time period. CDC adjusts the reported data and provides the estimated numbers of people who were diagnosed or living with HIV/AIDS during a certain time period.	HIV/AIDS diagnoses have often served as a marker for new HIV infections (incidence). However, a person can be infected with HIV for a long time before receiving a diagnosis. Therefore, HIV diagnoses are best used to monitor the epidemic in younger people, who will not have been infected for very long, as well as to help correlate testing and treatment patterns with estimated HIV/AIDS diagnoses.
Prevalence Estimate	1981-Present	CDC receives standardized data from states and dependent areas. After adjustments, prevalence estimates are derived. Estimated HIV/AIDS prevalence in CDC's surveillance reports is limited to those states with long-term, name-based HIV reporting. Other publications calculate prevalence estimates for the entire United States.	AIDS: 50 states, District of Columbia, US dependent areas. HIV/AIDS: 34 states, US dependent areas.* *The current surveillance report, which uses 2006 data, has data from 33 states and 5 US dependent areas.	The number of people living with HIV or AIDS in specific areas, including the entire United States.	Knowing how many people are living with HIV/AIDS is important for planning purposes, allocations of funds, and monitoring the epidemic. A growing number of people living with HIV/AIDS mean that treatment regimens are enabling more people to live longer after a diagnosis of HIV/AIDS. It also means a larger pool of people who can potentially transmit the virus.
HIV Incidence Estimate	2008	A laboratory test (STARHS) that can determine recent from long-standing HIV infections is applied to blood samples from newly diagnosed HIV/AIDS cases in certain states in the HIV/AIDS reporting system. These findings are then extrapolated to the United States.	22 states	The number of people newly infected with HIV in a given year.	Knowing how many new infections occur each year is vital to planning and allocation of funds, as well as to evaluating the success of prevention programs.

For more information on HIV/AIDS surveillance, visit http://www.cdc.gov/hiv/topics/surveillance.

HIV/AIDS RESOURCES

CDC HIV/AIDS
http://www.cdc.gov/hiv
CDC HIV/AIDS resources

CDC-INFO
1-800-232-4636
Information about personal risk and where to get an HIV test

CDC National HIV Testing Resources
http://www.hivtest.org
Location of HIV testing sites

CDC National Prevention Information Network (NPIN)
1-800-458-5231
http://www.cdcnpin.org
CDC resources, technical assistance, and publications

AIDSinfo
1-800-448-0440
*http://*www.aidsinfo.nih.gov
Resources on HIV/AIDS treatment and clinical trials