

HIV Surveillance Report

Erie County

2011

ERIE COUNTY
DEPARTMENT OF HEALTH
ecdh.org



HIV Surveillance Report, 2011 Erie County, Pennsylvania

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*Our mission is to preserve, promote and protect
the health, safety and well-being of the people and the environment of Erie County*

Commentary

AIDS (Acquired Immunodeficiency Syndrome) is an infectious disease characterized by the weakening of the immune system which can lead to infectious diseases, cancer, neurological problems, and death.

AIDS was first reported in the United States in 1981, in Pennsylvania in 1983, and in Erie County in 1984. In 1984, HIV (human immunodeficiency virus) was identified as the cause of AIDS. High levels of HIV are found in the blood, semen, pre-seminal fluid, breast milk, vaginal fluids, and rectal/anal mucous of infected individuals. Transmission of HIV can occur through exchange of these fluids during unprotected sex, needle sharing, blood transfusions, occupational accidents, and from mother to child during pregnancy, childbirth, or breast feeding. Symptoms of HIV vary and a person may be infected without knowing it until they are tested.

During the 1980s, both the number of AIDS cases and the number of deaths due to AIDS increased rapidly and peaked in the early 1990s when the case definition for AIDS was expanded in 1993 to include CD4+ T-lymphocyte counts. By 1996, the number of new AIDS cases declined and, by 1998, both AIDS incidence and AIDS deaths leveled off while AIDS prevalence increased. With the introduction and use of single drug antiretroviral therapy in 1987 and fixed-dose combination therapy in 1997, HIV in infected individuals can now be suppressed, the progression of the disease slowed, and the onset of AIDS delayed even by decades. There is no cure for HIV infection.

Because of these advances in treatment, the focus of case definitions and subsequent disease reporting has shifted from AIDS to HIV infection. The surveillance case definition for AIDS was expanded in 1985 to recognize HIV as the etiologic agent, in 1987 to include HIV wasting syndrome and other conditions, and in 1993 in response to the use of CD4+ T-lymphocyte counts in the management of HIV infection. Surveillance case definitions for HIV infection were introduced in 1997 with a case definition for pediatric HIV infection. In 1999, a revised surveillance case definition for HIV infection and AIDS in the general population was introduced followed by a revised case definition in 2006 for adolescents and adults.

In 2008, with greatly improved and widely available diagnostic HIV testing, HIV infection and AIDS were combined into a single case definition for HIV infection among adolescents and adults (aged ≥ 13 years). This definition requires laboratory-confirmed diagnosis of HIV infection and categorizes the disease into three stages plus an unknown stage, with stage 3 classified as AIDS. Case definitions for children have also been revised, with laboratory-confirmed HIV infection required for aged 18 months to 13 years.

With the introduction of advanced diagnostic testing and refined case definitions, several states initiated

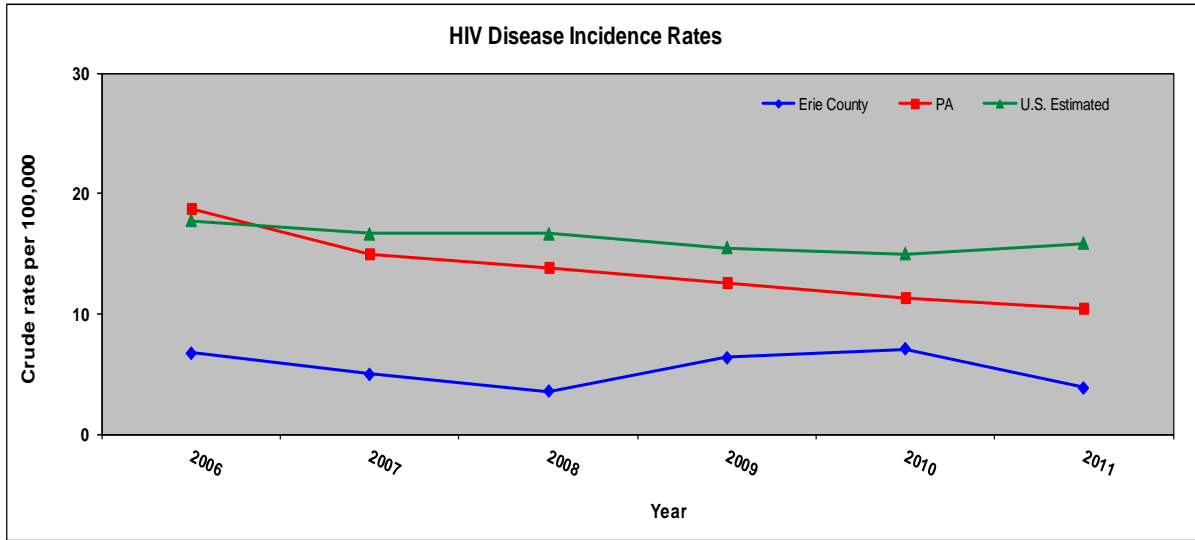
confidential, name-based HIV infection reporting as a tool to de-duplicate case reporting and more accurately report disease burden. Pennsylvania began HIV infection reporting in 2002 (excluding Philadelphia County which adopted this in 2005) with retroactive case reporting to January 1, 2000.

In order to standardize and integrate HIV disease reporting nationally, the Centers for Disease Control and Prevention (CDC), in 2005, recommended that all 50 states, the District of Columbia, and the 6 dependent areas adopt confidential, name-based HIV infection case reporting. The year 2011 marks the first year of this integrated reporting from all states, territories, and the District of Columbia.

Beginning with its 2011 HIV Surveillance Report, Pennsylvania (including Erie County) will no longer report AIDS cases separately. Instead, only HIV disease will be reported regardless of the stage of the disease (stage 1, 2, 3 [AIDS] or unknown). The terms HIV disease, used by Pennsylvania in its surveillance reporting, and HIV infection, used by the United States in its surveillance reporting, are interchangeable. The rates reported in the table are crude rates per 100,000 population. All case counts are reported as of December 31, 2011 with the exception of the number of individuals currently living with HIV infection in the United States. These counts represent cases reported as of December 31, 2010. Rates for individuals reported to be currently living with HIV disease are not included because the total population counts needed to calculate this statistic are not known. However, an estimated rate for the United States is listed.

Sources of information included in this report are the CDC (<http://www.cdc.gov/hiv/statistics/index.html>) and the Pennsylvania Department of Health ([Pennsylvania Department of Health](#)).

HIV Surveillance: Annual Cases and Incidence Rates, 2011 Erie County, Pennsylvania, & United States



		Before 2006	2006	2007	2008	2009	2010	2011	TOTAL TO 12/31/11	CURRENTLY LIVING ^{^^}
Erie County	HIV Disease Cases*	406	19	14	10	18	20	11	498	315
	Rate [^]	--	6.8	5.0	3.6	6.4	7.1	3.9	--	--
Pennsylvania	HIV Disease Cases*	42,863	2,335	1,866	1,729	1,583	1,446	1,334	53,156	31,856
	Rate [^]	--	18.8	15.0	13.9	12.6	11.4	10.5	--	--
United States	HIV Infection Cases*		NA	NA	50,195	46,319	43,806	42,842	NA	898,529
	Rate [^]		--	--	--	--	--	--	--	--
	HIV Infection Estimated**Cases*		42,543	48,785	51,477	48,283	47,132	50,199	NA	891,857
	Estimated Rate [^]		17.8	16.7	16.7	15.5	15.0	15.9	--	284.7

Note: HIV disease or HIV infection refers to a diagnosis of HIV infection regardless of the stage of disease (stage 1, 2, 3 [AIDS], or unknown) and refers to all persons with a diagnosis of HIV infection

NA= Not available; -- denotes that the rate is not calculated

[^]Crude rate per 100,000 population; Current year populations used for rate calculations

*As of December 31, 2011; All counts represent name-based reported cases unless otherwise noted; U.S. reported case counts represent 50 states, the District of Columbia, and 6 U.S. dependent areas. Pennsylvania initiated confidential name-based reporting in 2002; In 2005, the CDC recommended that all states and U.S. dependent areas adopt confidential, name-based HIV infection case reporting

^{^^}For Erie County and Pennsylvania, currently living to December 31, 2011; For U.S., currently living to December 31, 2010

**Estimating case counts adjusts for reporting delays and missing risk-factor information but not for incomplete reporting

Sources: PADOH HIV/AIDS Surveillance Summary, 2011; CDC HIV/AIDS Surveillance Reports, 2009 to 2011