

Facts about... **AIDS in King County**

Summary: AIDS continues to have a major impact on the health of King County. Of 7,765 persons diagnosed with AIDS as of 12/31/2007, over 4,254 had died. The good news is the number of newly diagnosed AIDS cases in King County has declined since 1993 and the number of AIDS deaths has dropped since 1995. After the 1993 change in the AIDS case definition and the introduction of highly active antiretroviral therapy (HAART) about 3 years later, opportunistic illnesses (OIs) have declined in incidence and in importance as AIDS-defining events. Deaths declined rapidly beginning in 1996 with the introduction of HAART. Because AIDS deaths have declined more rapidly than AIDS diagnoses, the number of King County residents living with AIDS continues to rise. Currently in King County, 200 people are diagnosed with AIDS, and nearly 100 die from AIDS each year.

What is AIDS? Acquired Immunodeficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV). When AIDS was first recognized in 1981, the cause was unknown. In 1983 HIV was identified as the virus that causes AIDS, and by 1985 a blood test was available for identifying HIV infection in persons who had not developed AIDS. Everyone who has AIDS also has HIV; AIDS is diagnosed after HIV infection has caused severe immune deficiency, as shown by special lab tests or certain opportunistic illnesses (OIs).

National ranking of Seattle area: The latest published data¹ show that in 2007, the Seattle metropolitan statistical area (MSA) (King and Snohomish Counties) ranked 24th in the number and 56th in the annual rate of reported AIDS cases nationally. The Seattle MSA AIDS rate was 10.9 cases per 100,000 population, compared to an average 15.6 for all 118 metropolitan areas with more than a half million people.

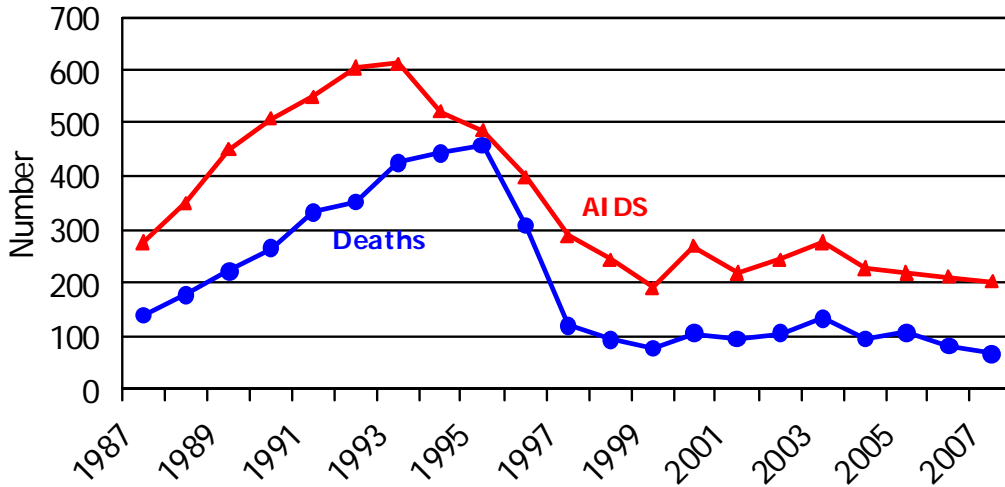
Nationally, the five highest 2007 AIDS case rates per 100,000 population were in San Francisco CA (41.7), New York City (36.6), Fort Lauderdale FL (36.5), Miami FL (36.5), and Washington DC (34.5). The Seattle MSA rate was 10.9, the Tacoma MSA had a rate of 4.5, and the Portland OR MSA rate was 8.6. Cases among the Seattle MSA comprise a decreasing proportion of total U.S. cases. Seattle accounted for 1.01% of the U.S. total at the end of 1992, 0.95% at the end of 1996, and 0.82% at the end of 2007.

King County has the highest AIDS rate among all Washington counties. One-third of the Washington population resides in King County, but almost two-thirds of all people diagnosed with AIDS resided in King County at the time of diagnosis. Within King County the AIDS rate is highest in Seattle.

AIDS diagnoses and deaths over time (Figure 1): As of December 31, 2007, 7,765 King County residents have been diagnosed with AIDS and 4,254 (55%) have died. New diagnoses of AIDS peaked in 1993 at 611, declined to about 250 cases each year from 1998 through 2004, and declined again to about 200 diagnoses per year in 2007. The number of HIV/AIDS deaths peaked in 1995 at 455 deaths, and declined to about 100 deaths annually 1997 through 2007.

With the introduction of highly active antiretroviral therapy (HAART) in 2006, a dramatic decline in deaths and delays in progression to AIDS began. In addition, effective prevention for opportunistic infections (such as *Pneumocystis pneumonia*), better monitoring of HIV disease progression (such as by assays of HIV viral load and drug resistance), and sustained efforts to prevent HIV transmission also may have contributed to decreases in numbers of AIDS diagnoses and deaths.

Figure 1: New AIDS cases and deaths in King County, 1982- 2007



AIDS case and death numbers have been roughly level since 2004, probably for several reasons. Some people do not receive effective treatments, because HIV status is identified too late in the course of HIV disease for optimal treatment, problems accessing treatment, or refusal of treatment. Other treatment failures are due to problems with taking medicines, adverse side effects, or the development of HIV strains resistant to currently available antiretroviral drugs. Finally, as people with long-standing HIV infection age, they die more frequently of conditions unrelated to their HIV infection. Figure 1 includes causes of death from all conditions.

While new AIDS diagnoses and deaths numbers have declined, more King County residents than ever are living with AIDS. For example, there were fewer than 100 King County residents living with AIDS in 1984, over 2,000 living with AIDS in 1994, and over 3,600 living with AIDS in 2007. For the past few years there was an annual increase of 100- 150 persons living with AIDS.

As a result of delayed progression of HIV to AIDS, the age of persons first diagnosed with AIDS has shifted toward older age groups, and the average age is gradually increasing. From 1993 through 1998, half of persons diagnosed with AIDS were age 37 or younger; from 2002-2007 half were 39 or younger.

King County residents currently living with AIDS:

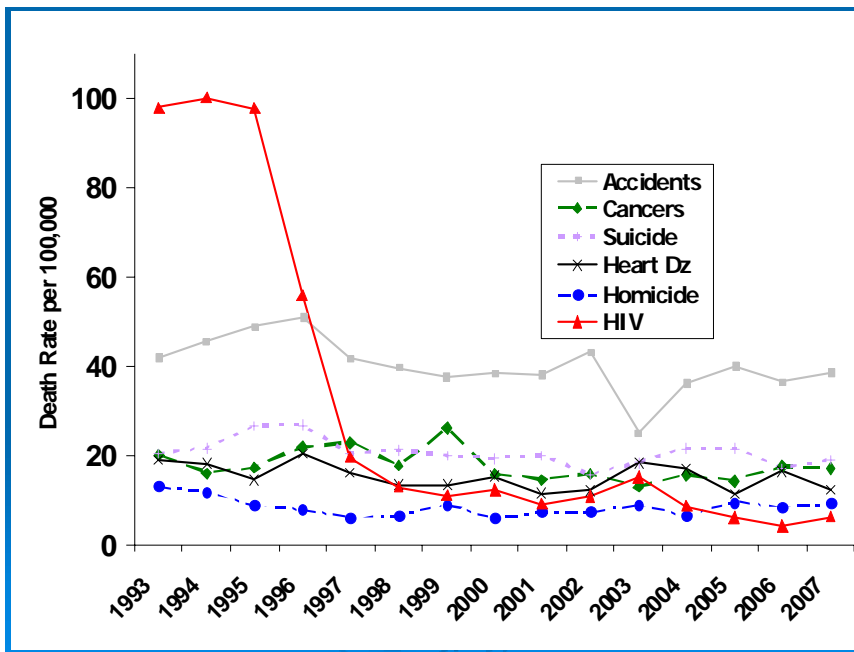
- Of the estimated 7,500 King County residents currently living with HIV, 45% (3,511) have been diagnosed with AIDS. These cases have been reported to Washington state and CDC. The remaining 55% have HIV infection but have not developed AIDS.
- Sixty-two percent of Washington AIDS cases reside in King County. Twenty-nine percent of the state’s population resides in King County.
- Eighty percent of those living with AIDS in King County were Seattle residents at the time of diagnosis, Thirty-one percent of the King County population lives in Seattle.
- Three-quarters of people diagnosed with AIDS in King County were 30-49 years old at the time of diagnosis. Most (98%) were 20-59 years of age at the time of diagnosis.
- Six people currently living with AIDS in King County were under 13 years at the time of AIDS diagnosis, of whom five were infected perinatally. Seven people were age 13-19 at the time of AIDS diagnosis, including two MSM, two MSM-IDU, two with heterosexual-acquired infection, and one infected through receipt of blood products.

- King County residents of color are disproportionately affected by AIDS. Non-Hispanic blacks constitute only 6.1% of the population, but represent 17% of those currently living with AIDS. Likewise, Hispanics represent about 6.1% of the population, and comprise 10% of those currently living with AIDS.
- Males constitute 90% (3,167) of King County residents currently living with AIDS relative to 50% of the general population.

Leading causes of death (Figure 2): HIV infection has dropped dramatically as a leading cause of death among 25-44 year old men in King County. From 1989 to 1996 HIV was the leading cause of death, but dropped to the 6th leading cause in 2005 after accidents, cancers, suicide, heart disease, and homicide². HIV infection has remained a low contributing cause of death for young women in King County. Nearly half of all HIV deaths now occur among persons over age 45.

Please note that a limitation of leading causes of death data is that some people who have AIDS die from conditions that are not considered HIV-related³. For example, between 2000 and 2006, 33% of deaths among people (men and women of all ages) with HIV were attributed by the King County Vital Statistics Office to underlying causes other than HIV: cancers (8%), heart disease (6%), accidents (5%), suicides (3%), and pulmonary disease, liver disease, and metabolic disorders (2% each).

Figure 2: Leading causes of death in males age 25-44, King County 1993-2007



AIDS-related opportunistic illnesses (OI): The case definition for AIDS has been modified several times, as medical understanding of the syndrome improved. The definition now includes any one of 26 opportunistic illnesses (OIs) that occur predominantly as a result of destruction of the immune system, and also includes direct laboratory evidence of immune suppression even before development of disease. The occurrence of an OI reflects two or more missed opportunities for prevention. These missed opportunities include failure to prevent HIV infection initially, failure of providing adequate HAART therapy to prevent disease progression, and for some OIs (notably *Pneumocystis pneumonia* [PCP] and *Mycobacterium avium* complex [MAC]) failure to provide adequate OI prophylaxis. Some OIs occur more frequently in men who have sex with men (MSM) and others are more frequent among injection drug users (IDUs) and/or women. OIs have declined markedly in incidence (both locally and nationally) since the introduction of HAART. With the AIDS case definition changed in 1993 to include severe immunosuppression, most diagnoses of AIDS no longer include an OI.

For additional information on the frequency of illnesses see Section C. HIV-related illnesses and social factors.

1. Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report. 2007. Vol. 19. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2009.
2. King County Vital Statistics / VISTA System
3. Mortality among King County residents with AIDS. HIV/AIDS Epidemiology Report, First Half 2008. Volume 72:19-21.