
2003 HIV/AIDS Epidemiology Profile for Community Planning Public Health-Seattle & King County

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2003 HIV/AIDS Epidemiology Profile for Community Planning — Report Highlights

Over the past 22 years AIDS has killed over 500,000 Americans and 25 million persons worldwide. King County including Seattle has seen almost 4,000 AIDS deaths and the number of persons living with HIV or AIDS has increased steadily to about 8,400 in 2002.

In this 5th edition of the *HIV/AIDS Epidemiology Profile for Community Planning, Seattle & King County*, we describe the current status of the HIV/AIDS epidemic and changes in the epidemic in our community over the past two decades. Our ability to characterize HIV and AIDS has grown during this time from simple AIDS case counts to an array of activities addressing the prevalence and incidence of HIV infection, the natural history of HIV disease progression, social and behavioral correlates of infection, HIV-related health care utilization, and detection and study of early HIV infection. With this report, we seek to provide the Seattle-King County community with science-based data needed to effectively target and evaluate prevention and care services.

In this report we describe both successes and continuing challenges related to the HIV/AIDS epidemic throughout King County. Some of the highlights:

Successes

- AIDS case numbers peaked in 1993 with 649 cases reported among King County residents. Annual AIDS cases have fallen to a low of about 250 cases per year from 1998 through 2002.
- Deaths among persons diagnosed with AIDS have declined dramatically, from an average of 443 deaths per year in 1993 through 1995 to fewer than 100 deaths per year in 1997 through 2002.
- AIDS was the leading cause of death among King County men ages 25-44 between 1989 and 1996, but dropped to lower rankings beginning in 1997. In 2002 AIDS was the 6th leading cause of death among young men.
- There have been no perinatally-acquired infections among children in King County since 1997.
- HIV prevalence and incidence remain low among heterosexual injection drug users.

Continuing challenges

- HIV and AIDS in King County increasingly affect women, and women with HIV/AIDS are younger on average than men. Women accounted for only 4% of all persons diagnosed with HIV infection in 1990; that number has risen to 12% of persons diagnosed during the past three years. The number of diagnoses has risen from about 30 women per year in the early 1990s to a projected 50 per year 2000-02.
- Racial and ethnic minorities are disproportionately affected compared to Whites. In recent years, the rate of new HIV diagnoses among African Americans, Hispanics, and American Indians/Alaska Natives has been two to three times the rate among Whites in King County.
- Racial disparities are even greater among women, with the HIV rate among African American females being 13 times that of White females.
- Behavioral risks for HIV transmission continue at high levels in some population groups. In one study of drug injectors, over two-thirds had shared needles in the past 6 months. Risky behavior such as unprotected sex and sex while high on drugs or alcohol continue among many men who have sex with men (MSM).
- Primary and secondary syphilis had been almost completely eliminated in King County in the mid-1990s. However, resurgent syphilis among MSM including some HIV-infected MSM began in 1998 and suggests recent increases in high risk sexual behavior that could lead to rising HIV infection rates.

Next steps

Our HIV Epidemiology program at Public Health – Seattle & King County continues to assist the HIV/AIDS Planning Council to identify and prioritize community efforts for both HIV care and prevention. In addition, we continue to collect and interpret a broader range of data as new technologies become available. Among these efforts are laboratory testing to identify and characterize persons who have very recently become infected, and measuring transmission of virus resistant to drugs. We are also conducting interview studies, both among high-risk individuals to identify some of the challenges surrounding prevention, and among HIV-infected persons to understand the use of and barriers toward obtaining appropriate HIV therapy.



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Chapter I. Introduction

The *2003 HIV/AIDS Epidemiology Profile for Community Planning* is the most detailed document available describing HIV infection in Seattle and King County, Washington. Because of the amount of detail and the multiple resources used, the surveillance data contained within this Profile extend only through December 2002.

More recent (but less detailed) information is available by calling our staff at 206-296-4645 or on our web site at <http://www.metrokc.gov/health/apu/epi/index.htm>.

- Each month a table of basic King County statistics is updated.
- Every six months the *HIV Epidemiology Report* is published. This contains several tables of Washington and King County data, and summaries of studies within specific populations.
- By March of each year, the Annual Review of the HIV Epidemic in King County is published on our web site. This is also published in the subsequent edition of the *HIV Epidemiology Report*.

The *HIV/AIDS Epidemiology Profile for Community Planning* provides Seattle and King County data to guide community-based planning and prioritization of HIV/AIDS prevention and care services. Previous editions were published in 1995, 1996, 1999, and 2001. This 2003 Profile is the first to incorporate HIV case reporting data broadly.

This *2003 Profile* addresses key questions to facilitate effective community planning.

- *What are the social and demographic characteristics of the community?*
- *What is the current and future impact of HIV/AIDS on the community?*
- *What is the geographic distribution of HIV/AIDS in the community?*
- *Which members of the community are at highest risk for becoming infected with HIV?*

The *2003 Profile* brings together many data sources for a multi-dimensional profile of the local HIV and AIDS epidemiology. Important differences in rates of HIV infection and AIDS by geographical, demographic, and behavioral characteristics are highlighted and, whenever possible, other relevant sources of information are incorporated. Washington State Department of Health compiles a similar Profile concentrating on HIV and AIDS outside Seattle and King County.

The data sources used for this *2003 Profile* are listed below. A comprehensive description of the data sources listed below is included in Appendix B.

- *HIV and AIDS case reporting*
- *Adult Spectrum of HIV-related Diseases and related record review studies*
- *SHAS and Young Men's Survey interview studies*
- *Local and state anonymous HIV serosurveys*
- *Various studies of injection drug users*
- *HIV Incidence Study (HIVIS)*
- *HIV counseling and testing data*
- *Sexually transmitted disease reporting data*
- *Health and risk behavior surveys*
- *U.S. census and other demographic and geographic population data.*



Chapter II. Demographic Description of King County

The spread of HIV infection is determined by the prevalence of HIV infection and the frequency of high-risk contacts between infected and uninfected persons. Although population characteristics are not risk factors for transmission of HIV or any other sexually transmitted diseases, they are markers for complex underlying social, economic, and cultural factors that affect personal behavior and health. The King County geographic and socio-demographic characteristics presented below allow comparison to other areas of the state and nation. These characteristics must be considered when designing and implementing HIV/AIDS prevention programs for diverse populations.

Geography: King County consists of 2,134 square miles, eleventh in area among Washington's 39 counties. While the County has only 3% of the State's land area, it is home to 29% of Washington's year 2000 population of 5,894,121. King County ranks as the twelfth most populous county in the United States.

AIDS service areas: The 39 counties in Washington State have been divided into six AIDS Service Networks (AIDSNETs). Each is represented on the statewide AIDSNET Council by the most populous county in the network region (see the Appendix for a list of counties by AIDSNET). AIDSNET Region 4 is unique in that it includes just one county (King County).

Seattle and the suburban cities: Eight of the 20 largest cities in Washington are located within King County. Seattle (2000 population 563,374) is the largest city within King County (2000 population 1,737,034). With the incorporation of the city of Sammamish in 1999, the County has expanded to 39 incorporated cities, which, in 2000, account for approximately 80% of King County's population. Thirty-two percent of County residents reside in Seattle, 47% in incorporated suburban cities, and about 20% in unincorporated King County.

Population growth in King County: The population of King County increased 15% between 1990 and 2000, but the growth was not uniform across the County¹. Seattle's population grew by only 9%, while the population living in unincorporated King County shrank by 32%. The majority of the County's growth occurred in the suburban cities, spurred by both annexation and construction of new housing units.

In 1989 suburban city residents comprised only 25% of King County's population, but by 2000 almost half (47%) of the County's total population resided in suburban cities. The largest population increases from 1990 to 2000 were in Kent (41,564), Bellevue (22,953), Federal Way (15,955), and Des Moines (11,984). Unincorporated areas of the County lost 163,525 in population due to annexation or incorporation. Factors important in understanding King County's population growth include:

- Washington State's 21% growth in population during the 1990s was higher than King County's rate of growth, yet almost a quarter of the State's population growth occurred within King County.
- Though still robust, King County's 15% growth in population between 1990 and 2000 was less than the 19% increase that occurred between 1980 and 1990.
- Seattle's population continues to be almost a third of the County's population, and more than 20% of the County's growth during the 1990s occurred in Seattle.
- More than 90% of the County's growth was in western, urban-designated King County, and most of the County's population resides in the western third of the County.
- More than half of King County's growth was in South King County. This was despite housing construction in South King County lagging behind the Eastside during this period.
- The Eastside and South King County populations each grew by about 20%.
- Rural portions of the County grew at a substantially slower rate. The population of rural designated areas grew by only about 20,000 people to approximately 137,000, about 8% of the total county population.

Forecasts of King County's population in 2012 range from 1,811,200 to 1,966,500.

Population age structure (Tables 1 and 2): The King County age distribution is changing. The highest growth rates were of persons 45-59 (55%), and those 75 years of age and older (34%). Those between the ages of 15 and 19 increased by 24%. The population aged 20-44, (those at highest risk of HIV infection) increased by 5%. The percentage of total population comprised of persons 20-44 declined, however, from 45% in 1990 to 41% in 2000. The 2000 population by sex and age is shown in Table 2.

Table 1: Population by age, King County, 1990 and 2000

Age	1990 Census		2000 Census		1990 - 2000	
	Persons	%	Persons	%	Change	%
0 - 4	104,924	7%	105,321	6%	397	<1%
5 - 9	98,828	7%	111,162	6%	12,334	13%
10 - 14	87,519	6%	109,992	6%	22,473	26%
15 - 19	87,664	6%	108,261	6%	20,597	24%
20 - 24	113,613	8%	116,597	7%	2,984	3%
25 - 34	300,762	20%	294,443	17%	-6,319	-2%
35 - 44	270,094	18%	308,823	18%	38,729	14%
45 - 54	162,636	11%	259,136	15%	96,500	59%
55 - 59	58,707	4%	83,442	5%	24,735	42%
60 - 64	55,480	4%	58,085	3%	2,605	5%
65 - 74	97,622	6%	88,884	5%	-8,738	-9%
75 - 84	52,420	3%	68,348	4%	15,928	30%
85+	17,050	1%	24,540	1%	7,490	44%
Total	1,507,319	100%	1,737,034	100%	229,715	15%

Source: 2002 King County Annual Growth Report.

**Table 2:
King County population by sex and age, 2000 Census**

AGE IN YEARS										
PLACE	Total pop.	0-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-99
King Co.										
TOTAL	1,737,034	216,483	109,992	108,261	116,597	141,795	308,187	292,470	203,392	239,857
Males	864,457	111,153	56,242	55,357	58,784	72,818	158,336	146,624	101,151	103,992
Females	872,577	105,330	53,750	52,904	57,813	68,977	149,851	145,846	102,241	135,865
Seattle										
TOTAL	563,374	50,674	23,425	29,648	51,014	61,809	109,922	89,573	62,338	84,971
Males	280,973	25,646	11,936	14,788	25,337	32,088	58,741	45,750	31,222	35,465
Females	282,401	25,028	11,489	14,860	25,677	29,721	51,181	43,823	31,116	49,506
KC-Seattle¹										
TOTAL	1,173,660	165,809	86,567	78,613	65,583	79,986	198,265	202,897	141,054	154,886
Males	583,484	85,507	44,306	40,569	33,447	40,730	99,595	100,874	69,929	68,527
Females	590,176	80,302	42,261	38,044	32,136	39,256	98,670	102,023	71,125	86,359

All population figures on this page were taken from Census 2000 Summary File 1, Table PCT12



Racial composition (Tables 3 and 4): The 2000 Census incorporated two major changes in reporting of race. First, the racial category "Asian or Pacific Islander" was divided into "Asian" and "Native Hawaiian and Other Pacific Islander" categories. Therefore, comparisons with 1990 data can be made only for the combined category. Second, respondents were for the first time allowed to identify themselves as belonging to more than one racial category, as well as Hispanic or non-Hispanic. A total of 63 combinations of racial categories (or 126 racial/ethnic combinations) are possible using this new typology. About 3% of King County and Washington residents identified themselves in the 2000 Census as belonging to two or more races, and 5% indicated they were of "some other race." In order to compare with prior years, Census officials created estimates to group all persons in the older, single-race categories.

King County is racially and ethnically different than the remainder of Washington State (Table 3). Although 29% of the State's total population reside in King County, 48% of Washington's African American population and 56% of the State's Asian population reside there. Meanwhile, only 17% of Native Americans/ Alaskan Natives and 22% of persons of Hispanic origin, reside within the county.

Table 3: Distribution of Racial/Ethnic Populations Living in King County or WA, 2000

Population	King County	WA State	% King Co.
<u>Non-Hispanic or Latino*</u>	1,641,792	5,452,612	30%
White	1,309,120	4,759,295	28%
Black or African American	105,205	217,887	48%
Native American or Alaskan Native	17,311	99,013	17%
Asian or Pacific Islander**	210,156	376,417	56%
<u>Hispanic or Latino</u>	95,242	441,509	22%
TOTAL:	1,737,034	5,894,121	29%
Source: U.S. Census Bureau, 2000, single-race bridged estimates.			
* Persons of identifying themselves with two or more races are redistributed to a single race so the can be compared with 1990 data. Among non-Hispanic persons, 60,660 King County residents and 190,079 Washington residents identified themselves as having two or more races.			
**Asian or Pacific Islander (API) was split into 'Asian' (A) and 'Hawaiian or Pacific Islander' (HPI) categories. Among persons in the combined API category, King County residents were 96% A and 4% HPI, while Washington residents were 94% A and 6% HPI.			

As shown in Table 4 below, the King County race distribution in 2000 was 75% non-Hispanic White, 12% non-Hispanic Asian, 6% non-Hispanic African American, 5% Hispanic origin, and 1% non-Hispanic Native American. The largest proportional increases between 1990 and 2000 were among Hispanics (115%), Asian and Pacific Islanders (81%), and African Americans (41%).

Table 4: Changes in Population by Race and Ethnicity, King County, 1990 & 2000

King County Population	1990		2000		1990-2000 Change	
	Persons	%	Persons	%	Persons	%
<u>Non-Hispanic or Latino</u>	1,462,982	97%	1,641,792	95%	178,810	12%
White	1,256,346	83%	1,309,120	75%	52,774	4%
Black or African American	74,851	5%	105,205	6%	30,354	41%
Asian or Pacific Islander	115,822	8%	210,156	12%	94,334	81%
Native American or Alaskan Native	15,963	1%	17,311	1%	1,348	8%
<u>Hispanic</u>	44,337	3%	95,242	5%	50,905	115%
TOTAL:	1,507,319	100%	1,737,034	100%	229,715	15%

Source: U.S. Census Bureau, 1990, and 2000 bridged single-race estimates.

While racial and ethnic diversity has increased moderately in Seattle, the diversity outside of Seattle has been more striking. Bellevue has the highest percentage of Asians in King County (17%), while in several South King County communities, minority populations doubled or tripled. Burien, SeaTac, and Federal Way each have substantial Pacific Islander, Black, and Hispanic populations. Almost half the population of Tukwila (47%) is minority.

Immigration: Immigration from other countries is an important component of King County's increasingly diverse population. The number of foreign-born persons living in King County has almost doubled between 1990 and 2000¹ (to 268,300) so that foreign-born individuals now constitute over 15% of King County's population. Census 2000 data show that 51% of immigrants were born in Asia, 20% were born in Europe, 15% were born in Latin America, 7% were born in Canada, and 5% were born in Africa. Since 1990, the number of people over the age of five who are not fluent in English has more than doubled, to 63,000, reflecting substantial immigration. About half of this population speaks Asian or Pacific Islander languages, though there has also been a significant increase in European language diversity, especially in Russian and Spanish.

Economic indicators: Growth in employment is an important driver of population and housing. More than 40% of the state's jobs and payroll are located within King County's borders. This reflects King County's position as the economic engine of Washington and the Pacific Northwest. In the 1990s, the number of jobs in King County grew from 900,000 to almost 1,200,000. Although most workers at these jobs live in King County, an increasing number commute from Snohomish County, Pierce County, and outlying areas. The composition of the economy is changing from a traditional manufacturing and resources based economy to a high tech, services based, economy. Economic highlights include the following:

- The 2000 Census reports that King County's median household income was more than \$53,000, a 47% increase from 1990. After adjusting for changes in inflation and the cost of living, however, the "real" increase was about 3%. More than one-third of households reported incomes greater than \$75,000 and almost one-third reported incomes under \$35,000. The median household income for African American, Native American, and Hispanic households was about \$35,000.
- The 2001 average wage (current dollars) in King County was \$47,000, a decline of 1.3% from the previous year. The decrease follows seven years of uninterrupted increases. The average wage in real dollars (adjusted for changes in the cost of living) had increased by about 2.5% per year during the 1990s, following a period of stagnation during the 1980s. Since 1999, however, the average real wage has also been declining.
- After consistently declining since 1993, the unemployment rate for the King County resident civilian labor force increased from 3.1% in 1998 to 3.6% in 2000, and to 5.1% in 2001. As of June 2002, the unemployment rate stands at about 6.2%.
- According to the 2000 Census, King County gained about 95,000 housing units during the 1990s, an increase of about 15%. About 63% of current units are single family, and about 37% are multifamily.
- Between 1990 and 2000 the home ownership rate increased by 1%, to 59.8%. Although the national and State home ownership rates increased more, the increase was encouraging because increasing housing prices and the immigration of low-income persons to King County had a substantial dampening effect.
- Between 1990 and 2000, the median value of single family housing increased from \$140,000 to \$236,000. The 69% increase, substantially greater than either the rate of inflation or income, means that many people are spending a larger portion of their income on housing. During the same period, the median rent increased by almost 50% in King County and by 56% in Seattle.
- People living in King County are highly educated. Over 90% of adults have a high school education and 40% have a college degree. In Seattle education levels are even higher, with 47% of adults having earned a college degree.



Poverty and homelessness: Although the percentage of King County residents living in poverty in 1999 was lower than Washington State (8.4% versus 10.6%), poverty continues to be a problem for many King County families. The 2000 Census reported that in King County over 142,000 individuals lived in poverty in 1999. Of these, 68,000 lived at income levels of less than one half the Federal Poverty Levels (currently, the FPL for a family of four is \$1,252 per month). The percentage living in poverty varies greatly by race and ethnicity. Although 6% of White King County residents lived in poverty, 11% of Asians, 16% of Native Hawaiians/Pacific Islanders, 18% of Hispanics, 20% of African Americans, and 21% of Native Americans lived in poverty. During this same period, nearly 20,000 King County households (2.8%) received some form of public assistance.

An estimated 5,500 people are homeless in King County (either living “on the street” or in shelters) and that somewhere between 500 and 2,000 are youth, mostly between the ages of 15 and 21. Most youth are not runaways. In fact, only 2-8% of youth found in homeless youth shelters have had a runaway report filed. Many factors contribute to homelessness among youth, including family conflict, mental illness, learning disabilities, and social issues such as poverty and racism. An estimated 25,000 King County residents have experienced homelessness in the past year.

Public health service delivery: Public health services are provided by a joint city and county health department, Public Health—Seattle & King County. For smaller area analyses, the County has been divided into 21 Health Planning Areas (HPA) taking into account sociodemographic characteristics, health service utilization, local health department service areas, political jurisdictions, and sense of community self-identity.

1. King County Annual Growth Report, 2002: <http://www.metrokc.gov/budget/agr/agr02/>

Chapter III. OVERVIEW OF HIV/AIDS IN KING COUNTY

In this chapter of the 2003 Community Profile we summarize the status of the HIV/AIDS epidemic in Seattle and King County. This edition is the first to routinely incorporate HIV reporting data into each section. Throughout the profile, we provide data in a variety of ways. It is important to understand the relationship between the various terms used to describe persons with HIV or AIDS.

AIDS cases are discussed in Section B and include the subset of HIV infected persons with severe immune deficiency. This immune deficiency is measured directly in a laboratory test, the CD4+ lymphocyte count. AIDS is also defined by HIV infection and the diagnosis of one of the 26 opportunistic illnesses that are part of the Centers for Disease Control AIDS case definition.

The **opportunistic illnesses** that make up the AIDS definition are described in Section D.

All other sections in the community profile rely partly upon **HIV case** data. Unless specifically indicated, these include all persons reported with HIV infection, including those who have progressed and developed AIDS.

Prevalent HIV cases include all persons living with HIV or AIDS. Most sections of this profile describe the epidemic in terms of these prevalent cases.

The **Actual Reports** are those HIV and AIDS cases that have been reported to Public Health – Seattle & King County. These numbers can be used to describe prevalent HIV (by including only cases not known to have died), or to describe trends (by including all cases).

The overall King County estimate of persons living with HIV infection including AIDS was developed in collaboration with the Washington Department of Health. Based upon ongoing evaluation work, we estimated that 95% of all AIDS cases and 75% of all HIV cases are reported within 12 months of diagnosis. We also assumed that one-third of persons infected with HIV are not diagnosed and not aware of their status. Finally, we know that 64.4% of reported HIV and AIDS cases reside in King County. This method led us to conclude that up to 13,000 Washington residents and **8,400 King County residents are infected with HIV**.

We believe the actual reports of HIV and AIDS are representative of all infected persons, but there is a large gap between the actual reports and the King County estimate. Therefore we also present **Estimated Prevalence** numbers to show the 'true' number of infected persons. These estimates are derived by multiplying the number of actual reports by a factor that reflects the unreported and undiagnosed cases. This factor is the estimated number of infections (8,400) divided by the actual number of reported cases living with HIV or AIDS (5,115).

HIV Incidence is the number of persons newly infected with HIV during a period of time, usually one year.



Section A. HIV Infection in King County

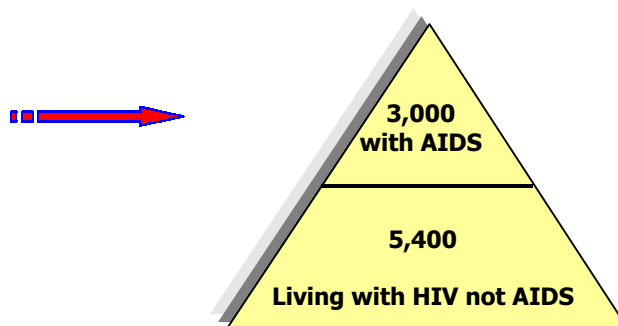
SUMMARY: There are many HIV epidemics occurring among the estimated 8,400 HIV-infected residents of King County, with striking variations in infection rates across different populations. Sexual and needle-sharing practices are predictive of risk for HIV infection. Sexually active gay and bisexual men in King County are at highest risk, with an estimated 16% infected. Meanwhile, about 4% of heterosexual injection drug users are infected. Excluding men who have sex with men and injection drug users, about 1 of every 1,000 persons who report neither HIV risk are infected. The rates of HIV infection also vary by sex, race, age, and residence. Rates are higher among African Americans, Hispanics, and Native Americans compared with Whites and Asians. Rates are also higher among men, persons aged 30-45 years, and residents of Seattle. An increasing proportion of the 400-500 new HIV diagnoses each year are among women, African Americans, and persons with heterosexual-acquired transmission. These variations emphasize the need to target HIV prevention programs to specific populations at risk.

KING COUNTY RESIDENTS CURRENTLY LIVING WITH HIV/AIDS (Table 5):

- As of December 2001, the Washington Department of Health estimated as many as 13,000 Washington residents are infected with HIV, including persons with AIDS¹. Because 64.4% of reported HIV and AIDS cases statewide are residents of King County, we estimate 8,400 King County residents currently living with HIV infection or AIDS.
- The estimated 8,400 King County residents currently living with HIV/AIDS include 3,000 who have developed severe complications of HIV infection, or AIDS. The remaining 5,400 have HIV infection but have not developed AIDS.
- CDC estimates that one-quarter to one-third of all HIV infected persons in the US are undiagnosed and unaware of their status². Among the 5,400 persons with HIV infection but not AIDS, 2,111 are reported to PH-SKC, an estimated 1,200 are diagnosed with HIV but not reported, and perhaps 2,100 are undiagnosed and unaware of their infection status.
- An additional 3,821 persons diagnosed with HIV or AIDS in King County have died over the past two decades

Figure 1:

**An Estimated 8,400 Persons
Currently Live with HIV or
AIDS in King County**



- An estimated 16% of sexually active men who have sex with men (MSM) are infected with HIV. MSM who also inject drugs have an even higher HIV infection rate, with perhaps 25% infected.
- About 4% of heterosexual drug injectors (IDU) are infected with HIV.
- About 15% of the estimated 175 to 200 persons with inherited severe bleeding disorders (hemophilia) in King County are HIV positive. These infections occurred prior to the start of screening of blood products for HIV in 1985.

Table 5: Seattle and King County residents living with HIV or AIDS as of 12/31/2002

Demographic Characteristics of King County Residents	Actual Reports		Estimated Prevalence		
	Number Reported	Percent	Estimated Number	2000* Population	Percent of Population
King County Total	5,115	100	8,400	1,737,034	0.5%
SEX					
Male	4,648	91	7,630	864,457	0.8%
Female	467	9	770	872,577	0.1%
RACE/ETHNICITY					
White, not Hispanic	3,732	73	6,150	1,309,120	0.5%
Black, not Hispanic	770	15	1,240	105,205	1.2%
Hispanic	412	8	690	95,242	0.7%
Asian/ Pacific Islander	108	2	180	210,156	0.1%
Native American/ Alaska Native	84	2	140	17,311	0.8%
Unknown	9	<1	N.A.	Not applicable	N.A.
SEX & RACE/ETHNICITY					
White Female	194	4	320	659,849	<0.1%
White Male	3,538	69	5,810	649,271	0.9%
Black Female	199	4	330	51,310	0.6%
Black Male	571	11	940	53,895	1.7%
Hispanic Female	36	<1	60	43,580	0.1%
Hispanic Male	376	7	620	51,662	1.2%
Asian/ Pac Isl Female	13	<1	<50	109,111	<0.1%
Asian/ Pac Isl Male	95	2	150	101,045	0.1%
Am Indian / Alaskan N Female	22	<1	<50	8,727	<0.6%
Am Indian / Alaskan N Male	62	1	100	8,584	1.2%
Unknown Race Female	3	<1	N.A.	Not applicable	N.A.
Unknown Race Male	6	<1	N.A.	Not applicable	N.A.
HIV EXPOSURE CATEGORY					
Men who have sex w/men (MSM)	3,584	70	6,310	40,000	16%
Injection drug user (IDU)	344	7	620	15,000	4.1%
MSM-IDU	465	9	800	3,150	25%
Blood product exposure	40	1	70	Unknown	Unknown
Heterosexual contact	331	6	560	1,245,000	0.05%
Perinatal exposure	21	<1	<50	Unknown	Unknown
SUBTOTAL- known risk	4,785	94	8,400	Not applicable	N.A.
Undetermined/ other	330	6	N.A.	Not applicable	N.A.
AGE AT HIV DIAGNOSIS					
0-19 years	126	2	210	434,736	<0.1%
20-24 years	503	10	830	116,597	0.7%
25-29 years	1,022	20	1,680	141,795	1.2%
30-39 years	2,255	44	3,680	308,187	1.2%
40-49 years	943	19	1,560	292,470	0.5%
50 years and over	266	5	440	443,249	0.1%
RESIDENCE AT DIAGNOSIS					
City of Seattle	4,388	86	7,230	563,374	1.3%
North or East of Seattle	300	6	500	575,548	0.1%
South or West of Seattle	427	8	670	597,999	0.1%

*2000 Census Population as of April 1, 2000, with single race bridged estimates. The populations among HIV exposure categories were drawn from a variety of sources. For MSM and MSM/IDU, the midpoint population estimate is shown. For MSM, the estimated population is 30,000 to 50,000. For MSM/IDU, the estimated population is 2,500 to 3,800.



KING COUNTY RESIDENTS CURRENTLY LIVING WITH HIV/AIDS (Continued):

- Among the estimated 1.2 million King County residents who are heterosexual but not MSM or IDU, fewer than one tenth of one percent are infected (<0.1%).
- The estimated HIV prevalence rate is higher among African Americans (1.2%), Native Americans (0.8%), and Hispanics (0.7%), than among Whites (0.5%) or Asian Pacific Islanders (0.1%).
- The estimated HIV prevalence rate among white men (0.9%) is about half that for African American men (1.7%), and lower than for Hispanic men (1.2%) and Native American men (1.2%).
- Data from the Survey of Childbearing Women between January 1989 and May, 1995 showed one of every 2,400 King County women giving birth were HIV infected (0.04%), with no change over time. The rate of HIV infection was ten times higher among African American women giving birth than for White women giving birth (0.3% vs. 0.03%).
- A much higher proportion of Seattle residents (1.3%) are HIV infected, compared with King County residents living outside Seattle (0.1%). While 32% of King County residents live in Seattle, about 86% of King County's HIV positive residents live there.
- Most King County residents reported with HIV were age 25-29 (20%), age 30-34 (24%), or age 35-39 (20%) at the time of diagnosis. Only 2% of persons were under age 20. This distribution has remained largely unchanged throughout the epidemic.
- The age distribution is different among males and females. Many females are younger than males when first diagnosed with HIV. This is probably because most women are heterosexually infected and tend to be younger than their male partners.

PERSONS LIVING WITH HIV AND AIDS BY GENDER, RACE/ETHNICITY, AND EXPOSURE CATEGORY (Table 6):

- Ninety-one percent of persons living with HIV or AIDS in King County are male and 9% are female. Most are White (73%), 15% are African American, 8% Hispanic, 2% Asian, and 2% are Native American. Six percent of cases have no acknowledged behavioral exposure to HIV (using the standard CDC-defined categories). Among cases with known exposure, 75% are men who have sex with men (MSM), 7% are MSM who also inject drugs (MSM-IDU), 10% are injection drug users (IDU), and 7% report having a heterosexual partner with HIV or at risk of HIV infection.
- The distribution of exposure categories differs by race and gender. MSM exposure is the most common among all males, accounting for 85% of known exposures among White men, 60% among African American men, 78% among Hispanic men, 85% among Asian Pacific Islander men, and 51% among Native American men. MSM-IDU is the second most common exposure among White men (11%), Asian men (5%), and Native American men (33%). IDU is second among Black men (15%), and Hispanic men (11%).
- Heterosexual transmission is the most common known exposure among women who are White (59%), Black (62%), Hispanic (81%), or Asian/Pacific Islander (71%). Among the few Native American female cases, IDU is the most common known risk behavior (78%), while 22% had heterosexual partners at risk.

Table 6: King County Residents Living with HIV or AIDS as of December 2002
Sex by Race / Ethnicity by Mode of Exposure

MALES	White		Black		Hispanic		Asian / PI ²		Native Amer.		Total ¹	
	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct
MSM	2918	82%	291	51%	270	72%	72	76%	31	50%	3,584	77%
IDU	110	3%	75	13%	37	10%	4	4%	9	15%	235	5%
MSM/IDU	378	11%	39	7%	24	6%	4	4%	20	32%	465	10%
Blood Exposure	21	1%	1	0%	3	1%	1	1%	0	0%	26	1%
Heterosexual	24	1%	77	13%	11	3%	3	3%	1	2%	117	3%
Perinatal	1	0%	3	1%	0	0%	1	1%	0	0%	5	0%
Unknown or Other	86	2%	85	15%	31	8%	10	11%	1	2%	216	5%
Subtotal Males	3538	100%	571	100%	376	100%	95	100%	62	100%	4648	100%
FEMALES	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct
IDU	54	28%	39	20%	2	6%	0	0%	14	64%	109	23%
Blood Exposure	4	2%	8	4%	1	3%	1	8%	0	0%	14	3%
Heterosexual	91	47%	90	45%	21	58%	5	38%	4	18%	214	46%
Perinatal	5	3%	8	4%	2	6%	1	8%	0	0%	16	3%
Unknown or Other	40	21%	54	27%	10	28%	6	46%	4	18%	114	24%
Subtotal Females	194	100%	199	100%	36	100%	13	100%	22	100%	467	100%
Total M + F	3732		770		412		108		84		5115	

1. Nine persons of unknown race are included in the total column.

2. PI = Pacific Islander

TRENDS IN HIV AMONG KING COUNTY RESIDENTS (Table 7, Figures 2 and 3):

We analyzed trends based upon the year of initial diagnosis with HIV infection. Although HIV reporting data are still incomplete, the number of new diagnoses appears level at 400-500 new diagnoses each year since 1998. The trends discussed below are based upon changes in proportions over time. This allows direct comparison of time periods with varying total numbers of persons diagnosed. It also allows comparison of two groups that are changing at different rates, and allows analysis of incomplete data. Trend data are based on the year that HIV infection was diagnosed, regardless of how long each person was infected before being tested.

Based upon data reported through December 2002, we compared the characteristics of persons first diagnosed with HIV infection during 1994-1996, to those diagnosed 1997-1999, and in 2000-2002. A chi-square test for trend was used to determine if the change in proportions for each group was statistically significant over those three periods. The statistically significant changes are shown in Table 7, and only these significant changes are discussed below. These may demonstrate shifts in the epidemic, artifacts from implementing surveillance for HIV infection in 1999, or longer delays in getting tested among some groups.

- The proportion of new HIV diagnoses that are among MSM has declined over time. MSM made up 78% of new diagnoses with a known risk in 1994-96, but only 69% of new diagnoses in 2000-02.
- The percentage of new diagnoses among persons with a known risk of a heterosexual sex partner with a known risk factor for HIV infection increased from 5% (1994-96) to 14% (2000-02).
- The proportion of new diagnoses among White men has declined from 70% (1994-96) to 58% (2000-02), mostly due to the decline in diagnoses among MSM. However, the proportion of new diagnoses has increased among African American men (11% to 16%) and among Hispanic men (7% to 9%).
- As heterosexual transmission has increased, new HIV/AIDS cases among females has also risen, from 8% of total cases (1994-96) to 12% (2000-02). The percentage of new diagnoses among Black women increased from 3% to 6%.



Table 7: Demographic characteristics and year of HIV diagnosis for 8,937 Seattle/King County residents reported to Public Health -- Seattle & King County HIV/AIDS Surveillance through 12/31/2002*

	1982-1987		1988-1990		1991-1993		1994-1996		1997-1999		2000-2002		Trend**
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
TOTAL	1615	100	2028	100	1885	100	1361	100	1004	100	1043	100	
HIV Exposure Category													
Men who have sex w/men (MSM)	1261	78	1597	79	1387	74	977	72	681	68	642	62	Down
Injection drug user (IDU)	70	4	102	5	130	7	94	7	61	6	77	7	
MSM-IDU	204	13	221	11	197	10	107	8	79	8	76	7	
Blood product exposure	34	2	31	2	17	<1	7	<1	5	<1	7	<1	Up
Heterosexual contact	23	1	43	2	92	5	64	5	69	7	129	12	
Perinatal exposure	5	<1	3	<1	8	<1	7	<1	3	<1	2	<1	
SUBTOTAL- known risk	1597		1997		1831		1256		898		933		
Undetermined/ other	18	1	31	2	54	3	105	8	106	11	110	11	
Sex & Race/Ethnicity													
Male	1569	97	1940	96	1763	94	1249	92	896	89	914	88	Down
White Male	1387	86	1637	81	1429	76	947	70	630	63	607	58	Down
Black Male	87	5	168	8	175	9	154	11	123	12	171	16	Up
Hispanic Male	59	4	81	4	107	6	96	7	103	10	95	9	Up
Asian / PI Male***	20		32		37		25	2	25	2	29	3	
Am Indian Male	16		22		15		26	2	13	1	8	1	
Unknown race Male	0	0	0	0	0	0	1	<1	2	<1	4	<1	
Female	46	3	88	4	122	6	112	8	108	11	129	12	Up
White Female	32	2	52	3	67	4	47	3	43	4	44	4	Up
Black Female	12	<1	25	1	36	2	42	3	52	5	63	6	
Hispanic Female	1	<1	2	<1	9	<1	11	<1	5	<1	15	1	
Asian / PI Female***	0	0	4	<1	3	<1	4	<1	3	<1	2	<1	
Am Indian Female	1	<1	5	<1	7	<1	8	<1	3	<1	4	<1	
Unknown Race Female	0	0	0	0	0	0	0	0	2	<1	1	<1	
Race/Ethnicity													
White, not Hispanic	1419	88	1689	83	1496	79	994	73	673	67	651	62	Down
Black, not Hispanic	99	6	193	10	211	11	196	14	175	17	234	22	Up
Hispanic	60	4	83	4	116	6	107	8	108	11	110	11	Up
Asian / Pacific Islander	20	1	36	2	40	2	29	2	28	3	31	3	
American Indian / Alaska Native	17	1	27	1	22	1	34	3	16	2	12	1	Down
Unknown	0	0	0	0	0	0	1	<1	4	<1	5	<1	
Age at diagnosis of HIV													
0-19 years	38	2	34	2	25	1	21	2	19	2	13	1	
20-29	569	35	539	27	489	26	311	23	234	23	219	21	
30-39	682	42	932	46	835	44	605	44	472	47	492	47	
40-49	248	15	384	19	407	22	313	23	212	21	244	23	
50-59	65	4	102	5	110	6	95	7	55	5	63	6	
60+	13	1	37	2	19	1	16	1	12	1	12	1	
King County Residence													
City of Seattle	1405	87	1818	90	1611	85	1156	85	854	85	867	83	Up
North and East King County	100	6	100	5	135	7	96	7	61	6	58	6	
South and West King County	110	7	110	5	139	7	109	8	89	9	118	11	

*Includes persons who later developed AIDS

**Indicates a statistically significant (p<.05) trend in the proportion of cases by 3-year interval between 1994 and 2002

***PI = Pacific Islander

- The proportion of new diagnoses among African Americans increased (from 14% to 22%) between 1994-96 and 2000-02. The proportion decreased among Whites from 73% to 62% during the same period, and there was a slight decline in the proportion who were American Indian, from 3% to 1%.
- During 2000-2002, 83% of new HIV/AIDS diagnoses were of residents of Seattle, while 11% live in King County south or west of the city, and 6% live north or east of Seattle. During 1994-96, only 8% resided south or west of Seattle.
- Most of the increase in proportion of cases with heterosexual transmission is among black females from south and west of Seattle. Most of the decrease is among white males residing in Seattle.
- During the period 2000 through 2002, there were two new HIV/AIDS diagnoses among children under 13, and 11 among teens age 13-19. Eight percent of new diagnoses were persons 20-24 years old, 13% were 25-29 years old, 47% were 30-39 years old, 24% were 40-49 years of age, and 7% were age 50 or older.

Figure 2: HIV diagnosis trends
by known exposure, King County, 1981-2002

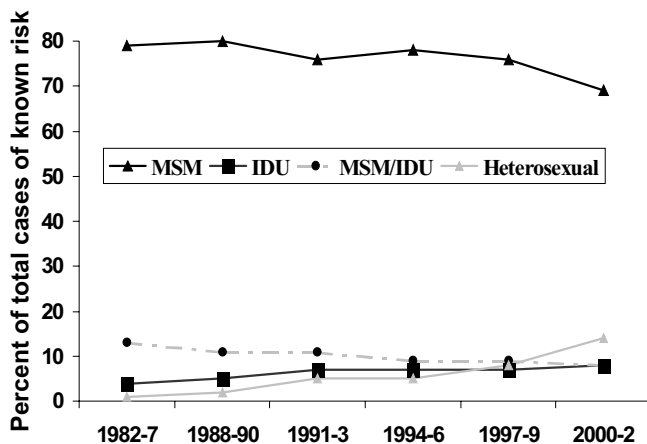
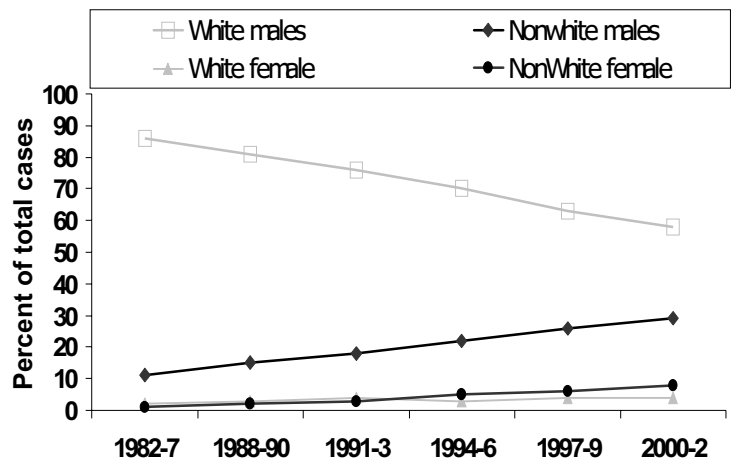


Figure 3: HIV diagnosis trends
by Sex and Race, King County, 1981-2002



Measures of HIV Incidence: The trend analyses presented above are limited because they depend upon the diagnosis of HIV infection, yet we know some individuals may be infected for ten years or longer before diagnosis. HIV incidence data tell us the number of persons actually *infected* within a given period of time. One method of deriving HIV incidence data is to conduct repeated testing among certain individuals and note when a negative test is followed by a positive result. A second method is the Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS), which uses a modified (less-sensitive) HIV enzyme-linked immunosorbent assay (LS-EIA) to identify recently infected persons, permitting incidence estimates based on single tests rather than requiring repeated testing.

- Among King County men who have sex with men (MSM) who were tested more than once at Public Health HIV/AIDS Program alternative test site between 1986 and 1998, HIV incidence ranged between 1.3 and 1.7 per 100 MSM annually. (Data not shown)
- For all persons tested at publicly-funded testing sites in King County from January, 1997, through December, 2002, the STARHS incidence was 0.7 per 100 person-years (95% confidence limits [CL] 0.6, 0.9). HIV incidence was highest for men who have sex with men (MSM) and who inject drugs (4.3 per 100 person-years, 95% CL 2.2, 6.3) and MSM who do not inject drugs (2.5 per 100 person-years, 95% CL 2.1, 2.9). No consistent trend in incidence across time was observed for any risk population. (Data not shown)

References

1. HIV Prevalence Estimation in Washington (unpublished document)
2. Sweeney PA, Fleming PL, Karon JM, et al. A minimum estimate of the number of living HIV infected persons confidentiality tested in the United States [Abstract I-16]. In: Program and Abstracts of the Interscience Conference on Antimicrobial Agents and Chemotherapy. Toronto, Canada: American Society for Microbiology, September 1997.



Section B: AIDS in King County

SUMMARY: Although the number of newly diagnosed AIDS cases in King County has declined since 1993 and the number of AIDS deaths has dropped since 1995 (Figure 4), AIDS continues to have a major impact on the health of King County. About 6,700 persons have been diagnosed with AIDS and over 3,800 have died. Nearly three-quarters of those who died were men between 25 and 44 years old, making HIV/AIDS the leading cause of death in this group from 1989 to 1996. However, deaths declined rapidly beginning in 1996 with the introduction of highly active anti-retroviral therapy. Because AIDS deaths have declined more rapidly than AIDS diagnoses, the number of King County residents living with AIDS continues to rise. There are currently about 250 AIDS diagnoses and 70-100 deaths 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 an approved HIV test was made available, allowing infection with HIV to be identified in persons who had not developed AIDS. Everyone who has AIDS also has HIV. Only after HIV infection has caused severe immune deficiency, as shown by special lab tests or certain opportunistic diseases, is a patient diagnosed with AIDS.

SEATTLE AREA NATIONAL RANKING¹: The latest published Centers for Disease Control and Prevention AIDS data¹ show that among 104 metropolitan areas of one-half million population or higher in 2001, the Seattle metropolitan statistical area (MSA) ranked 24th in the cumulative number and 40th in annual rate of reported AIDS cases nationally. The Seattle MSA (which includes King, Snohomish, and Island counties) AIDS rate during 2001 was 14.3 cases per 100,000 population.

The five highest rates in the country were in New York City (65.9), Miami FL (53.8), Baltimore MD (50.0), Jersey City NJ (42.1), and Fort Lauderdale FL (41.3). In comparison to the Seattle MSA rate of 14.3, the Tacoma MSA had a rate of 9.3, while the Portland (Oregon) MSA rate was 11.2 per 100,000.

Cases among the Seattle MSA make up a decreasing proportion of total U.S. cases as the epidemic becomes more rural. Seattle accounted for 1.01% of the U.S. total at the end of 1992, 0.95% at the end of 1996, and 0.81% at the end of 2001.

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

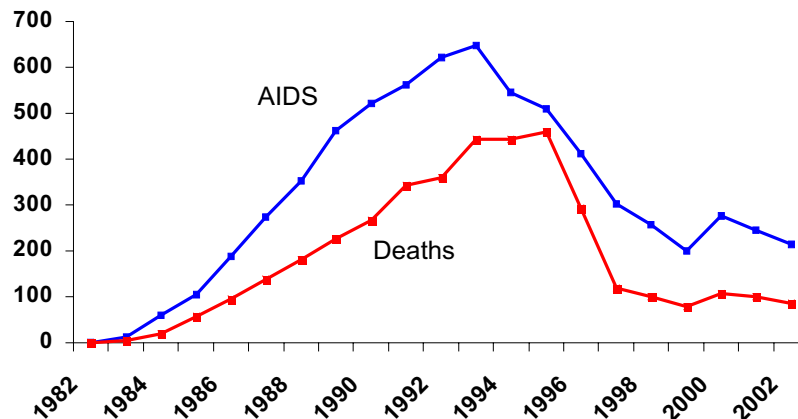
AIDS DIAGNOSES AND DEATHS OVER TIME (Figure 4): As of December 31, 2002, 6,679 King Co. residents have been diagnosed with AIDS and 3,821 (57%) have died. AIDS cases peaked in 1993, declined through 1997, and have been stable at about 250 cases each year since 1998. The number of HIV and AIDS deaths peaked 1993 to 1995 at over 400 deaths per year, but declined to about 100 deaths annually 1998 through 2002.

The dramatic decline in deaths and prevention of progression to AIDS are primarily due to wide-spread introduction of effective antiretroviral treatments. In addition, effective prevention for opportunistic infections (such as *Pneumocystis carinii* pneumonia), better monitoring of HIV progression (such as by assays of HIV viral load), and sustained efforts to prevent HIV transmission have contributed to decreased numbers of HIV and AIDS diagnoses.

Figure 4: New AIDS Cases and Deaths

King County, 1982-2002

Adjusted for delays in reporting



The death and AIDS numbers have been roughly level since 1998 (rather than declining further) for several reasons. Some persons do not receive effective treatments (because HIV status is identified too late in the course of HIV disease for optimal treatment, because of problems accessing treatment, or because patients refuse treatment). Other treatment failures are due to problems with taking the medicines, adverse side effects, or the development of HIV strains resistant to currently available antiretroviral drugs. Finally, as persons with long-standing HIV infection age, they die more frequently of conditions unrelated to their HIV infection.

While both new AIDS diagnoses and deaths numbers have decreased, more King County residents than ever are living with AIDS. In recent years, new AIDS case diagnoses average 250 per year, while fewer than 100 persons with AIDS die each year.

As a result of delayed progression of HIV to AIDS, the age of persons first diagnosed with AIDS has shifted toward older age groups. From 1993 through 2001 the percentage of AIDS cases diagnosed among persons age 20-29 years declined from 17% to 12%. During the same period, the percentage of diagnosed cases among persons aged 40-49 years increased from 27% to 32%.

Virtually all other AIDS trends are parallel to those found in Section A: HIV infection in King County.

KING COUNTY RESIDENTS CURRENTLY LIVING WITH AIDS:

- Of the estimated 8,400 King County residents currently living with HIV, about one-third (2,852) are known to have been diagnosed with AIDS. The remaining two-thirds have HIV infection but have not developed AIDS.
- Although 29% of the State's population reside in King County, 62% of the State's AIDS cases are King County residents.
- Eighty-four percent of those living with AIDS in King County live in the city of Seattle
- Over three-quarters (76%) of King County cases were 30-49 years old at the time of AIDS diagnosis. 99% were 20-59 years of age at the time of diagnosis.



- Six persons currently living with AIDS in King County were under 13 years at the time of diagnosis, and all were infected perinatally. An additional four persons were age 13-19 at the time of AIDS diagnosis, including two MSM, one with heterosexual-acquired infection, and one infected through receipt of blood products.
- King County residents of color are disproportionately affected by AIDS. Blacks constitute only 5.4% of the population, but represent 15% of those currently living with AIDS. Likewise, Hispanics represent about 5.5% of the population but comprise 9% of those currently living with AIDS.
- Males constitute 92% (2,638) of King County residents currently living with AIDS.

LEADING CAUSES OF DEATH (Figures 5 and 6):

HIV infection has dropped dramatically as a leading cause of death among young men in King County. From 1989 to 1996 HIV was the leading cause of death, but dropped to the fifth leading cause in 2002 - behind accidents, cancers, suicide, and heart disease². HIV infection has remained a relatively infrequent cause of death for young women in King County.

Figure 5:

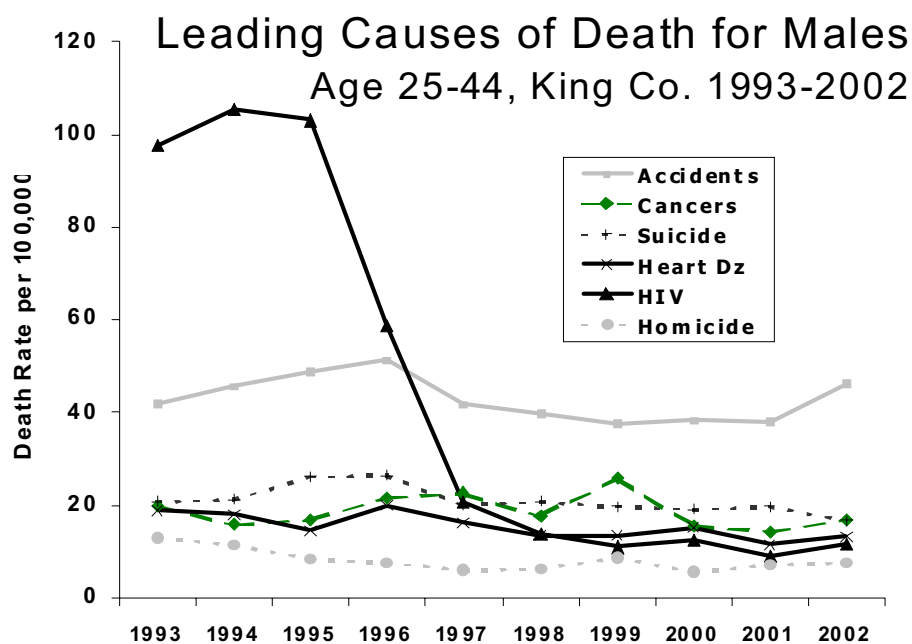
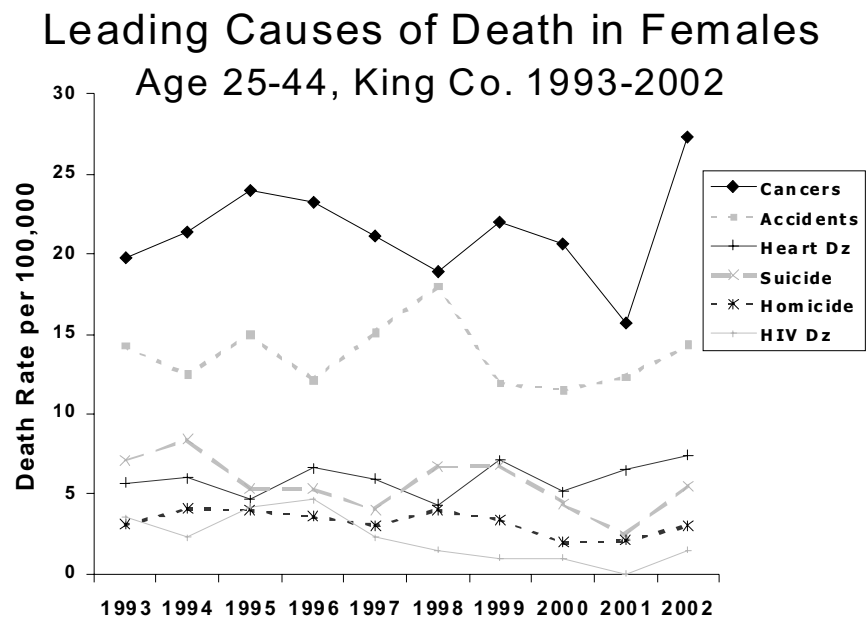


Figure 6:



1. HIV/AIDS Surveillance Report, 2001:13(no. 2). Centers for Disease Control and Prevention.
2. King County Registrar / VISTA System



Section C. Geographic Distribution of HIV/AIDS across King County

SUMMARY: HIV and AIDS cases, like other sexually-transmitted diseases, have always been concentrated in urban areas. In King County, both the number and the rate of HIV infection diagnoses for the City of Seattle continues to exceed that for the rest of King County. Over the past few years there has been a slightly faster growth of cases among persons residing south and west of Seattle, from 8% of new HIV diagnoses in 1994-96, to 11% in 2000-02. Within Seattle, the HIV rates also vary markedly by geographic region. Both within and outside of Seattle, male-to-male sexual contact is the most common mode of HIV exposure. However, HIV cases outside Seattle are more often attributed to injection drug use and heterosexual contact than are cases diagnosed within Seattle.

SEATTLE VERSUS OUTSIDE SEATTLE (Table 8):

- Of the 5,112 King County residents reported living with HIV or AIDS through 2002, 86% were Seattle residents, 8% reside south or west of the city, and 6% reside north or east of Seattle.
- Of HIV cases with known risk, 76% of Seattle cases were attributed to male-to-male sex (MSM), compared to 66% of cases in those living outside of Seattle.
- Compared to Seattle residents reported with HIV, those living outside of Seattle when they were diagnosed were more likely to be female (17% vs. 8%) and to have been reported as infected with HIV either heterosexually (15% vs. 6%) or through non-MSM injection drug use (10% vs. 7%).

Table 8: King County Residents Living with HIV or AIDS reported through 12/31/2002

Residence at time of AIDS diagnosis:	Seattle N=4,388		Outside of Seattle N=727	
	No.	(%)	No.	(%)
Sex				
Male	4,042	(92)	606	(83)
Female	346	(8)	121	(17)
Race/Ethnicity				
White	3,220	(73)	512	(79)
African American	645	(15)	125	(11)
Hispanic	344	(8)	68	(7)
Asian/Pacific Islander	94	(2)	14	(2)
Am Indian/AK Native	79	(2)	5	(1)
Unknown Race	6	(<1)	3	(<1)
Exposure Category				
Male/male sex (MSM)	3,163	(72)	421	(58)
Injection drug use (IDU)	281	(6)	63	(9)
MSM/IDU	422	(10)	43	(6)
Heterosexual sex	238	(5)	93	(13)
Other (blood product or perinatal)	40	(1)	21	(3)
Total with Known Risk	4,144		641	
No Identified Risk	244	(6)	86	(12)

VARIATION IN HIV RATES WITHIN KING COUNTY HEALTH PLANNING AREAS (Tables 9 and 10, Figure 7):

Mapping the residence of HIV/AIDS cases in King County is useful for planning of both care and prevention services. HIV/AIDS, like other sexually transmitted diseases, is more concentrated in urban areas compared to what would be expected based on the population distribution. About 64% of all reported HIV and AIDS cases in Washington reside in King County, while only about 30% of the Washington population resides in the County.

We calculated the rates of persons living with HIV/AIDS reported through December 31, 2002 per 100,000 population by geographical area within King County. We used the total number of persons reported living with HIV infection, including AIDS, because this measure reflects the need for care services and for ongoing prevention services.

Population calculations for each Health Planning Area (HPA) were provided by the PH-SKC Epidemiology, Planning, and Evaluation Unit from the 2000 Census. These HPAs are based on aggregated census tract data and were originally designed to correspond with neighborhoods, utilization of clinics, travel patterns, and other community factors. However, these may not exactly match zip code boundaries.

Reported cases were categorized into geographical Health Planning Areas based upon the reported residence at the time of AIDS diagnosis, or HIV diagnosis for persons without AIDS. Resident zip code was used for Seattle and the immediate surrounding area, while city or village was used for the remaining areas. For reference, the zip codes and cities comprising each HPA are shown in Table 1. Table 2 displays the number of persons reported living with HIV or AIDS as of December 31, 2002, the percent of the total, and the rate per 100,000 population.

The map displays these rates geographically. The rate for the city of Seattle (654.6 per 100,000 persons) is about eight times higher than the King County rate outside of Seattle (85.3). Within Seattle, the rate for Central Seattle (2206.8) is eleven times higher than for North Seattle/N. King County (191.2). Outside the city, the rate for the Burien/Highline area (214.0) is twelve times higher than for Southeast King County (17.9). These prevalence rates are expected to increase annually, because there are an estimated 400-500 persons diagnosed annually with HIV infection each year in King County, but there are fewer than 100 deaths.

Table 9: ZIP Codes by geographical Health Planning Area in King County

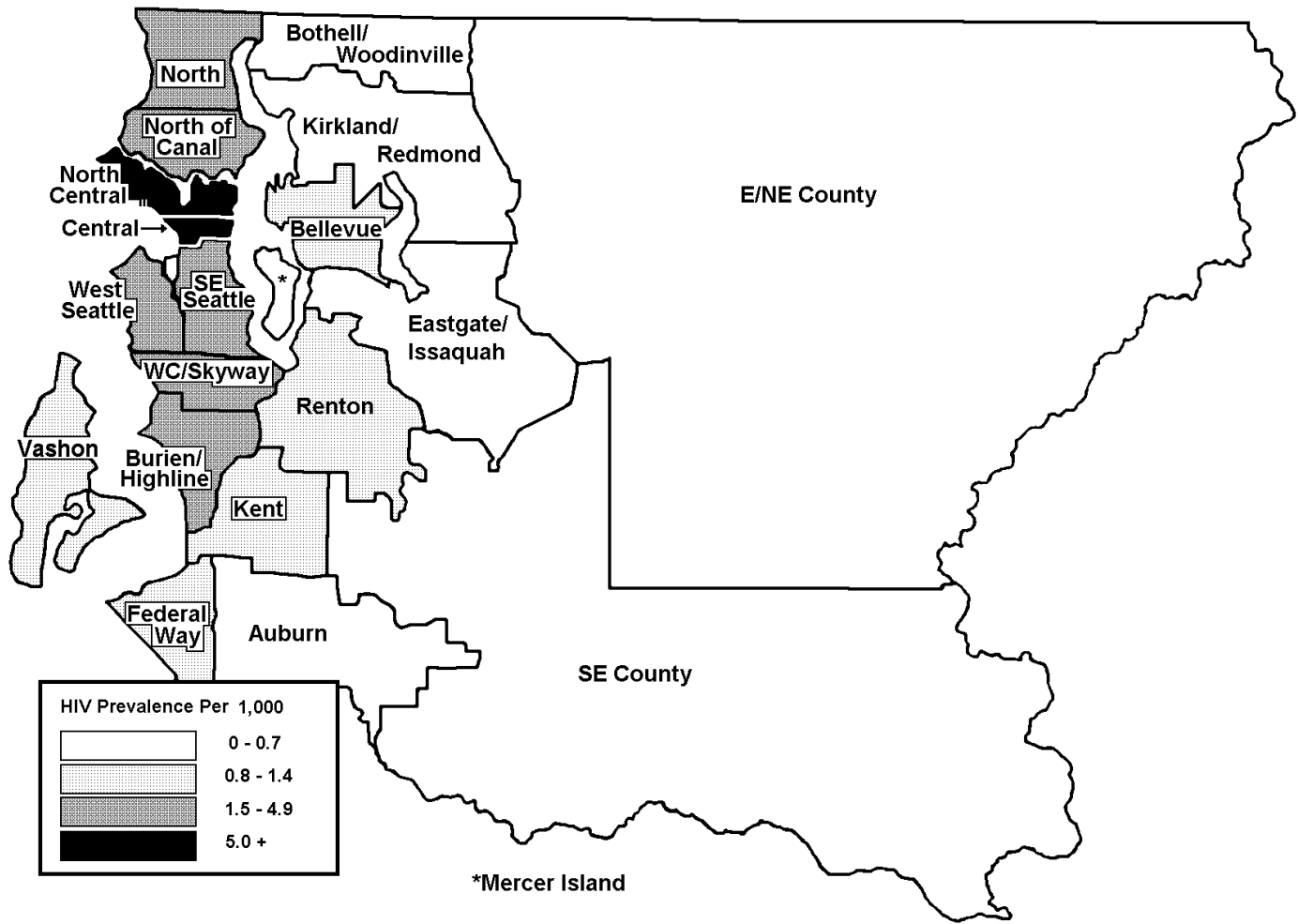
<u>SEATTLE</u>		<u>KING COUNTY OUTSIDE SEATTLE (CONTINUED)</u>	
Central	98101, 98104, 98111, 98114, 98121, 98122	Burien/Highline	98062, 98138, 98148, 98158, 98166, 98188, 98198
North	98125, 98133, 98155, 98160, 98177	East/Northeast County	98014, 98019, 98024, 98045, 98050, 98051, 98065, 98068, 98224, 98288
North Central	98102, 98109, 98112, 98119, 98199	Eastgate/Issaquah	98006, 98027
North of Canal	98103, 98105, 98107, 98115, 98117, 98145, 98195	Federal Way	98003, 98023, 98054, 98063
Southeast	98108, 98118, 98124, 98134, 98144	Kent	98031, 98032, 98035, 98064
West	98106, 98116, 98126, 98136	Kirkland/Redmond	98033, 98034, 98052, 98053, 98073, 98083
<u>KING COUNTY OUTSIDE SEATTLE</u>		Mercer Island	98040
Auburn	98001, 98002, 98047, 98071	Renton	98055, 98056, 98057, 98058, 98059
Bellevue	98004, 98005, 98007, 98008, 98009, 98039	Southeast County	98010, 98022, 98025, 98038, 98042, 98048
Bothell/		Vashon	98013, 98070
Woodinville	98011, 98028, 98072	White Center/Skyway	98146, 98168, 98178



Table 10: HIV / AIDS Prevalence Rates by Health Planning Area in King County as of December 31, 2002

Geographical Area	2000 Census	Actual Reported Cases		
		Living with HIV or AIDS	Percent of total	Rate per 1,000
Homeless in King Co.		89	2%	N/A
Seattle area subtotal	622,533	4,075	80%	6.5
North Seattle / N King County	130,724	250	5%	1.9
Seattle North of Canal	172,684	462	9%	2.7
North Central Seattle	94,740	1,054	21%	11.1
Central Seattle	59,635	1,316	26%	22.1
West Seattle	77,187	253	5%	3.3
Southeast Seattle	87,563	385	8%	4.4
Missing zip code data		355	7%	N/A
Outside Seattle subtotal	1,114,501	951	19%	0.9
Auburn	87,230	46	1%	0.5
Bellevue	89,359	113	2%	1.3
Bothell / Woodinville	76,238	47	1%	0.6
Burien / Highline	85,965	184	4%	2.1
East / Northeast King County	38,053	24	0%	0.6
Eastgate / Issaquah	85,978	19	0%	0.2
Federal Way	90,623	93	2%	1.0
Kent	92,992	104	2%	1.1
Kirkland / Redmond	152,225	79	2%	0.5
Mercer Island	22,036	9	0%	0.4
Renton	116,688	88	2%	0.8
Southeast King County	89,359	16	0%	0.2
Vashon	10,123	12	0%	1.2
White Center / Skyway	77,632	117	2%	1.5
All King County	1,737,034	5,115	100%	2.9

Figure 7: Map of HIV / AIDS case rates in King County by Health Planning Area





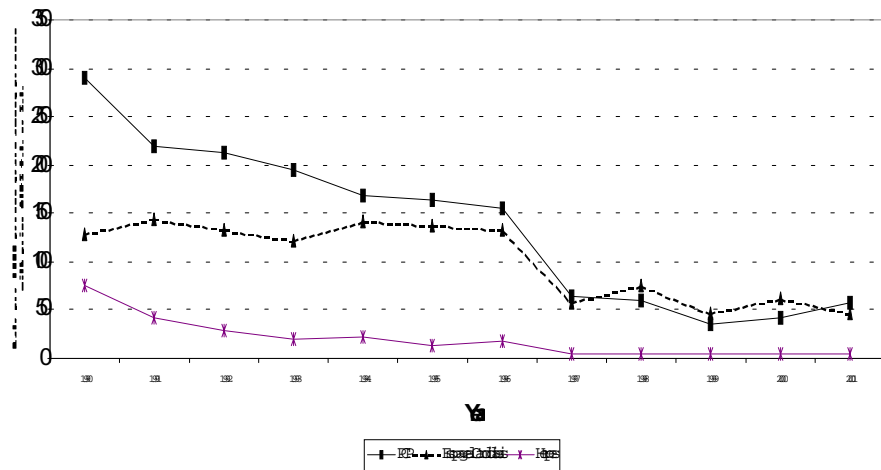
Section D. AIDS-related Opportunistic Illnesses

BACKGROUND: People with HIV infection are at high risk for a wide range of illnesses due to HIV risk factors and HIV itself. Among the most severe illnesses are the 26 AIDS-defining opportunistic illnesses (OIs) that occur as a result of HIV disease progression, and generally occur only after substantial damage to the immune system. OIs have markedly declined (locally and nationally) in incidence since the availability of highly effective antiretroviral therapy (HAART). The occurrence of an OI reflects multiple stages of prevention failure—from failure to prevent HIV infection through failure of providing adequate HAART therapy to prevent further disease progression. Some OIs occur more frequently in men who have sex with men (MSM) and others among injection drug users (IDUs).

EPISODIC OPPORTUNISTIC ILLNESSES (Figures 8 and 9)

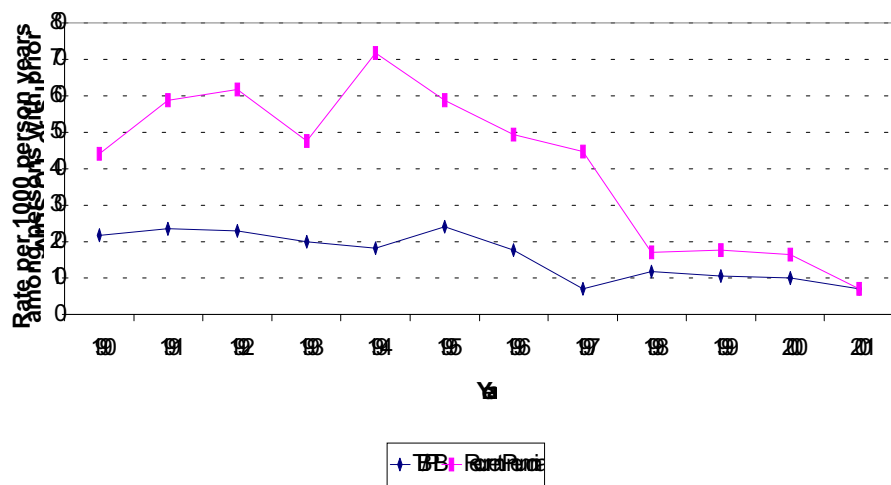
- Figure 8 plots steep declines in PCP (*pneumocystis carinii* pneumonia) and esophageal candidiasis since the advent of HAART in 1996. PCP is frequently the initial AIDS-defining event, it is also sometimes an HIV-defining event among persons with late diagnoses of HIV. Esophageal candidiasis is an important OI in women and IDUs. The decline in chronic herpes simplex infection is more modest than the other OIs.

Figure 8:
Declines in Episodic Opportunistic Illnesses, 1990 - 2001, Part A



- Figure 9 shows striking declines in TB (tuberculosis—both pulmonary and extrapulmonary, such as miliary or peritoneal) and recurrent pneumonia. Both of these episodic OIs are more common in IDUs than in MSM.

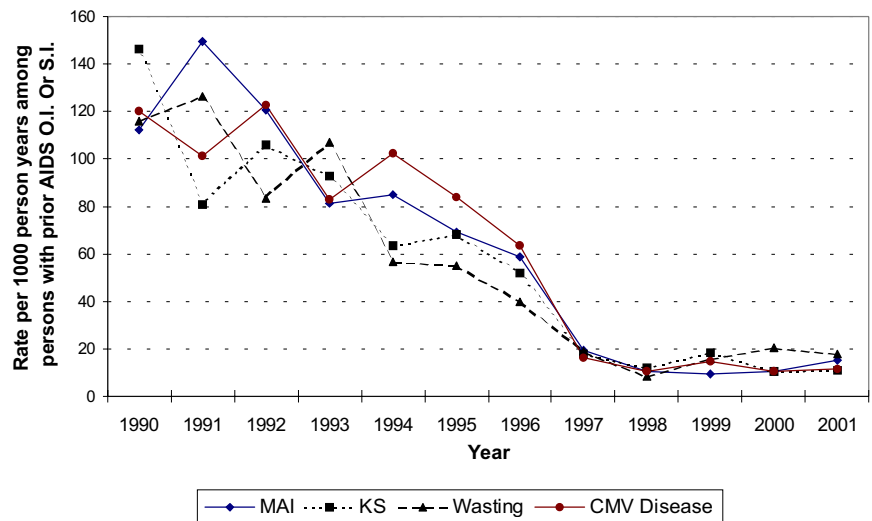
Figure 9:
Declines in Episodic Opportunistic Illnesses, 1990 - 2001, Part B



CHRONIC OPPORTUNISTIC ILLNESSES (Figures 10 and 11):

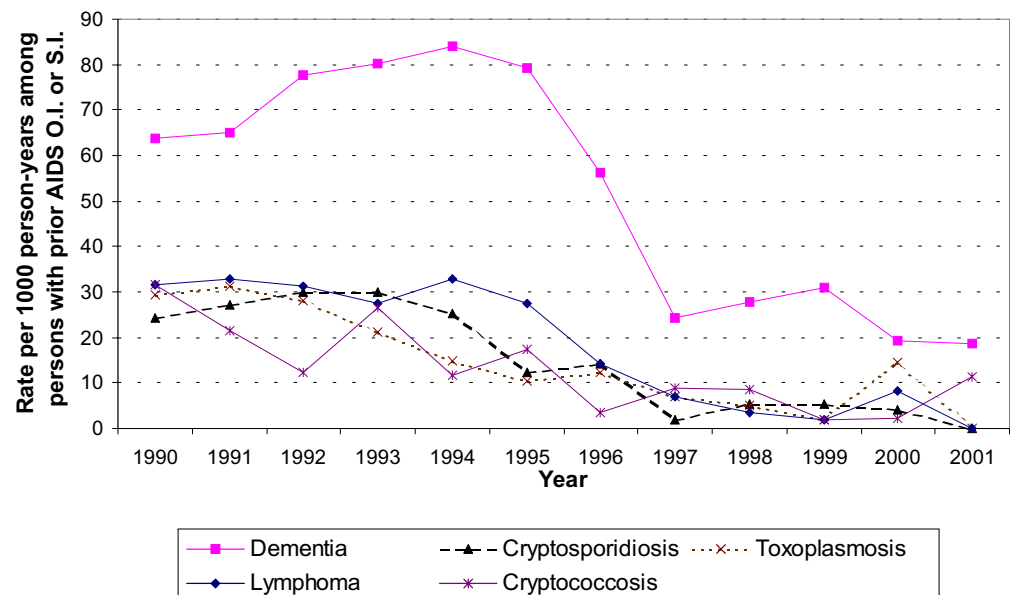
- In Figure 10, *Mycobacterium avium* complex (MAC), Kaposi's sarcoma (KS), HIV wasting syndrome, and CMV disease (including CMV retinitis) rates are all seen falling sharply starting in 1996. KS is more common among MSM than other HIV-infected persons. MAC typically only occurs in the most immunocompromised persons, at very late-stage AIDS.

Figure 10:
Declines in Chronic
Opportunistic Illnesses,
1990 - 2001, Part A



- Further declines in the incidence of 5 more OIs are illustrated in Figure 11. Of these, HIV dementia or encephalopathy was and remains most prevalent.

Figure 11:
Declines in Chronic
Opportunistic Illnesses,
1990 - 2001, Part B





Section E. HIV-Related Illnesses and Co-morbidities (other than opportunistic illnesses)

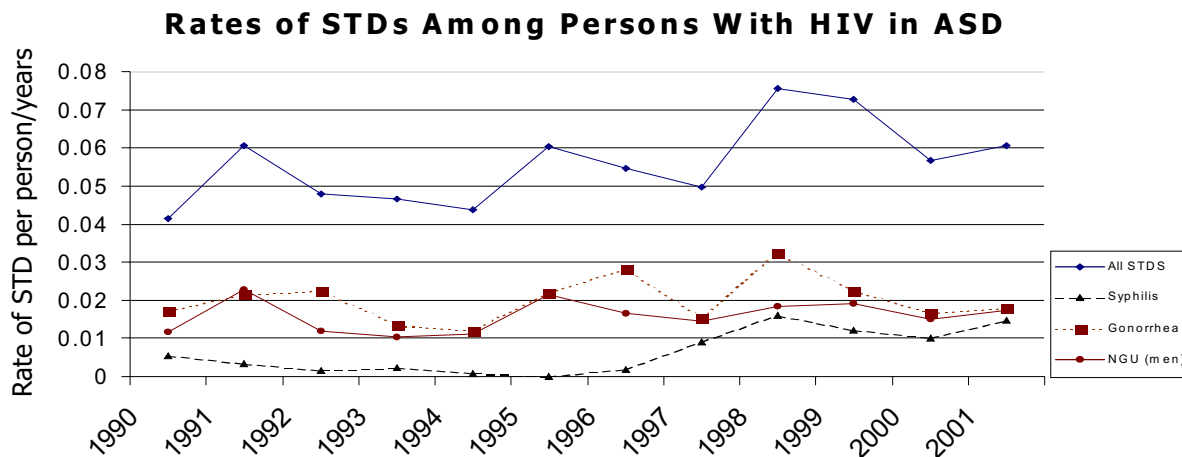
BACKGROUND: People with HIV infection are at high risk for a wide range of illnesses. Among the most severe illnesses are AIDS-defining opportunistic illnesses (OIs) which are summarized in Section D. In addition to OIs, there are other important conditions for HIV-infected persons and their caregivers to consider. Data from the Adult/Adolescent Spectrum of HIV-related Diseases (ASD) were used to examine the following HIV cormorbidities.

SEXUALLY TRANSMITTED INFECTIONS (Figure 12):

Sexually transmitted illnesses or diseases, also known as venereal disease, STIs, or STDs, are important as markers of ongoing risk taking among HIV-infected people. In addition, having an STI greatly enhances the risk of HIV transmission.

- The overall rate of diagnosis of any STI in the ASD cohort was 6% per year
- Gonorrhea rates averaged 2% per year, syphilis 1% per year, pelvic inflammatory disease in women 5% per year, non-gonococcal urethritis 2% per year, and chlamydia 1% per year. Below is a graph showing trends in three STIs and overall rates in ASD

Figure 12:



HEPATITIS PREVALENCE and INCIDENCE:

Hepatitis B (HBV) and C (HCV) are viral infections of the liver. In the chronic state, they greatly increase the risks of severe liver disease including cirrhosis and liver cancer. About 10-20% of people acquiring HBV infection as an adult, and about 80-85% of persons infected with HCV become chronic carriers. Although hepatitis probably does not worsen the course of HIV infection, HIV infection can contribute to more severe hepatitis. Furthermore, hepatitis (or its outcomes, such as cirrhosis) may limit HIV treatment options. In addition, when viral hepatitis is newly diagnosed in a person infected with HIV it suggests that the person may be engaging in unsafe sexual or needle sharing behaviors.

- In the Adult/Adolescent Spectrum of HIV-related Diseases project, 7% of screened HIV-infected people also had HBV infection and 16 % also had HCV infection.
- The prevalence of hepatitis was highest among heterosexual IDUs: 10% had HBV and 56% had HCV.

LATENT TUBERCULOSIS INFECTION:

TB is a greater threat to a person infected with HIV because of the greater risk of disease progression to active TB in an HIV-infected person.

- 50% (2170/4311) of the ASD cohort have PPD (tuberculin skin test) results documented in their medical records
- Of these, 14% (296/2170) were documented as PPD positive, generally suggesting latent infection with *M. tuberculosis*.
- Of these, 57% (170/296) received prophylactic isoniazid (INH) to decrease their risk of developing active tuberculosis.

MENTAL ILLNESSES:

Mental illness can impair an HIV-infected person's ability to receive prevention and treatment services.

- Schizophrenia and other psychoses have been present in about 2% of the ASD cohort each year since 1990 (between 1993 and 2001, percents rose marginally from 1.6 to 2.2). In comparison, about 1% of the general population are diagnosed with schizophrenia.
- Bi-polar disorder was diagnosed in 6% of the ASD cohort. Trend data show a slight increase from 3% in 1990 to 7% in 1998, thereafter leveling or decreasing to 6% in 2001. Bi-polar type 1 disorder occurs among 0.4% to 1.6% of the general population.
- Depression is the most commonly diagnosed mental illness, present, on average, in 27% of ASD patients per year. Depression prevalence increased from 1990 (20%) peaking in 1995/1996 (30%), thereafter declining slightly (to 26% in 2001). At any given time, 3-6% of Americans suffer from clinical depression, but this increases to 20-25% of persons with a chronic medical condition.

SUBSTANCE USE:

Like mental illness, those individuals who have issues with substance abuse and HIV may have difficulties accessing prevention and treatment services.

- Injection drug use was present in about 7% of the ASD cohort each year 1990-2001.
- Alcohol use was present in 15% of the ASD cohort each year 1990-2001.
- Other drug use was diagnosed in 9% of the cohort each year, 1990 through 2001.
- Tobacco use. About 33% of enrollees have tobacco use mentioned in their medical records, including smoking cigarettes or cigars and chewing tobacco. There has been a gradual decline in tobacco use, from a high of 38% in 1995 to 28% in 2001.

PERSONS WITH DISABILITIES:

- Hearing disabilities. 1.5 percent of the ASD cohort has been diagnosed with hearing disabilities, including complete and partial deafness. There have been no noticeable trends in prevalence over the 12 years of the study with a prevalence rate of 1-2% per year.
- Visual disabilities. Over the course of ASD, 11.4% of the cohort have had a diagnosis of visual impairment, including complete and partial blindness. Visual impairment increased in the early 1990's, and reached a plateau of 14% 1993 through 1996. Probably due to HAART-associated decreases in cytomegalovirus (CMV) retinitis, visual impairment diagnoses have been cut in half and were found in 7% of the cohort in 2001.
- Impaired mobility. Less than 1%, or about 7 in 1,000 HIV-infected persons followed by ASD, have had mobility impairments diagnosed, including paraplegia, semiplegia, and/or other types of paralyses. Since 1997, impaired mobility has decreased to 1-2 per 1,000.



Chapter IV. HIV/AIDS Epidemiology in Prevention Target Populations

This section of the profile summarizes HIV/AIDS epidemiology in ten important prevention target populations. These include men who have sex with men, injection drug users, persons of color, women, pregnant women and their children, homeless adults, incarcerated people, heterosexuals, young people, and foreign-born residents. Data from many sources are incorporated to provide a comprehensive description of the epidemiology of HIV and AIDS in each of these groups.

HIV/AIDS in Men who have Sex with Men

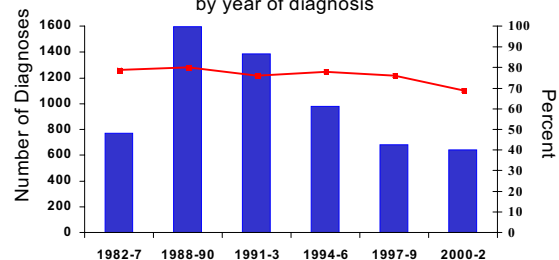
SUMMARY: Men who have sex with men (MSM) were the earliest group affected by HIV/AIDS in King County, continue to have the highest incidence of AIDS and HIV (new infections and AIDS diagnoses), and have the highest prevalence of HIV and AIDS (existing infection or disease). In King County, 85% of persons of known risk living with HIV including AIDS are MSM – including MSM who have injected drugs (MSM/IDU). Trend data through 2002 show that the proportion of HIV diagnoses among MSM has gradually decreased while the proportion in women and non-MSM injection drug users has increased. However, sexually transmitted infection (STI) rates have increased among MSM in recent years, which may foreshadow an increase in HIV incidence among MSM.

STATUS AND TRENDS IN HIV DIAGNOSES AND AIDS CASES (Figure 13):

- Although King County data show a declining proportion of HIV diagnoses among MSM (see figure below), MSM are still by far the largest subgroup with HIV in King County.
- The proportion of new HIV diagnoses among MSM not injecting drugs dropped from 78% of those with known risk in 1994-96 to 69% 2000-02 (Figure 13). Non-IDU MSM also dropped from 79% to 69% of AIDS diagnoses in the same time period.
- The proportion of HIV diagnoses among MSM/IDU has remained roughly level at 8-9% of persons with known risk from 1994-2002. AIDS among MSM/IDU was level at 10% for the same time period.
- A higher proportion of Seattle residents living with HIV/AIDS have been MSM or MSM-IDU (82%) compared to residents of King County outside of Seattle (64%)
- Among the 5,115 persons reported living with HIV or AIDS in King County, 75% of those with known risk are MSM and 10% are MSM/IDU. These proportions are identical among the 2,916 King County residents presumed living with AIDS.

Figure 13:

Number and Percent of HIV and AIDS Diagnoses Among MSM, by year of diagnosis



POPULATION SIZES:

- Public Health-Seattle & King County estimates the current number of MSM is between 32,000 and 53,000 in King County, including approximately 2,500 - 3,800 MSM with *any* history of injection drug use.
- There are an estimated 6,300 HIV infected MSM without an IDU history. Assuming the population of MSM without IDU above is correct, between 13% and 21% of all MSM are infected with HIV.
- There are an estimated 800 HIV infections county-wide out of MSM with any history of injection drug use. Therefore between 21% and 32% of MSM/IDU are HIV-infected.

HIV PREVALENCE STUDIES:

Depending on the site or population of MSM and the year of the survey, local HIV prevalence studies show that between 2.5% and 45% of MSM test HIV positive. These studies directly measure the level of infection among

specific populations. HIV prevalence rates declined from the mid-1980's through the mid-1990's, but may be rising again. The highest levels of HIV prevalence were generally found in:

- Older MSM compared to younger MSM,
- MSM with STDs,
- MSM/IDU and especially amphetamine injectors relative to those with no history of IDU
- African-American MSM relative to whites and others
- Men who had sex exclusively with other men rather than both men and women.
- Among nearly 20,000 men tested at the Public Health HIV/AIDS Clinic between 6/1986 and 12/2000, the prevalence of HIV was 16% among MSM who did not inject drugs and 26% among MSM/IDU.
- During 2000-2001, 9.7% of 681 MSM tested HIV positive in the unlinked (anonymous) Harborview STD Clinic survey.
- In the same STD Clinic survey, trend analysis showed that HIV prevalence decreased from 36% for all MSM in 1988-89 to 5% in 1996-97, but rose again to 11.5% in 2001.
- In the STD Clinic unlinked survey between 1997 and 2001, 23% of MSM who tested HIV + did not report a prior positive HIV test *and* did not receive HIV testing and counseling at the survey visit (the HIV testing was due to the anonymous study design). These men may not have been aware of their HIV + status.
- Public Health's Raven Study of drug injectors found that about 45% of MSM IDU who primarily injected amphetamines were HIV + compared to 29% of gay men and 8% of bisexual men who preferred other drugs (data from 1994-97). Another study conducted in 1994-99 found an HIV prevalence of 6% in MSM/IDU entering drug treatment; for these MSM, heroin was the primary drug used.
- In the Phase 2 Young Men's Study which tested 465 MSM aged 23-29 years from 12/98 to 2/00, 4.7% were found to be HIV-infected, and only 64% of these knew of their positive serostatus.

HIV INCIDENCE (Table 11):

- HIV incidence (the number of new infections) was estimated at publicly-funded HIV test sites in King County by examining sera of 6,216 people with two or more HIV tests 1993-2000. These sites included the Harborview STD Clinic, Public Health-Seattle-King County testing sites, and the Seattle Gay Clinic. At these sites, the incidence appears unchanged 1993 to 1999, but may have increased in 1999-2000.

	Year	HIV incidence per 100 person-years (95% CI*)
Table 11: HIV Incidence Among Public Health Repeat Testers, 1993-2000	1993-1994	1.4 (1.0-1.8)
	1995-1996	1.3 (1.0-1.7)
	1997-1998	1.2 (0.9-1.7)
	1999-2000	2.0 (1.4-2.7)

*The 95% confidence interval (CI) is the interval within which the point estimate of incidence is expected to fall 95% of the time; if a point estimate is outside the 95% CI of another point estimate, then the two point estimates may be statistically significantly different.

BEHAVIORAL RISKS (Table 12):

- Project Shape conducted by the University of Washington School of Social Work in 1997-99 interviewed 257 HIV+ MSM who had anal sex with any male partner in the past 4 months other than a mutually monogamous HIV+ relationship. Several factors were correlated with these men having unprotected anal sex with a partner of unknown or negative HIV status. These include: a larger number of one-time partners; less disclosure of HIV status; negative attitudes about condoms; minimizing the likelihood and seriousness of causing new HIV infections; minimizing HIV transmission risks and personal responsibility; and seeking sex for excitement or relief (as opposed to love).
- A multivariate analysis of MSM tested at the Public Health HIV/AIDS Program site between 1996-99 found that the following factors were associated with at least a two-fold increased risk of HIV seroconversion as determined by the use of the LS-EIA lab method for detecting recent HIV infection: unprotected receptive anal sex in the previous 6 months; four or more male sex partners in the previous 2 months; a history of having ever traded sex for money or drugs; and age 35 years or less.



- In 1999-2000, the Sleepless in Seattle Study recruited 1,000 MSM at sites specializing in health care and HIV testing for MSM. All these MSM had anal sex within the previous year. During the 2 months prior to interview, the following behaviors were reported:
 - 85% had any anal sex
 - 70% had receptive anal sex
 - 13% met sex partners in parks
 - 25% met partners in baths or sex clubs
 - 15% used crystal methamphetamine with sex
 - 57% used 'poppers'
 - 43% "sometimes" or "never" used condoms for anal sex at baths
 - 40% did not discuss HIV status prior to sex a majority of the time
 - 14% of HIV negative MSM had one or more HIV+ sex partners (this was higher among MSM over 35 years, those with more than 5 sex partners in the past 2 months, and those who used crystal meth).
 - 45% of HIV+ MSM had one or more HIV negative sex partner, 33% had one or more sex partners of unknown HIV status; the HIV status was more likely to be unknown for partners met at baths or parks.
- In the 2000 HIV Testing Survey conducted in Seattle, 83 sexually active MSM without HIV infection were recruited from selected venues including bars and clubs. Eight percent had never had an HIV test, 62% had been tested in the past year, and 52% were getting tested on some regular basis. Over the past year, 52% had been in a primary relationship, 9% had been in more than one primary relationship, and 77% had sex with one or more non-primary partners. Of the 83, 34% always used a condom, 45% sometimes used condoms, and 21% never used condoms.
- In the Kiwi study, 1,358 injection drug users incarcerated at two King County Correctional facilities were tested for HIV between 8/98 and 7/02. MSM had a higher prevalence of HIV infection than other IDU; MSM who used amphetamines had the highest prevalence of HIV relative to MSM who primarily injected other drugs.

Table 12: Injected drugs and MSM behavior among incarcerated persons, 1998 - 2002

Primary injection drug in the past year		Total number of men and % with HIV			
		MSM n=157		non-MSM n=1201	
	Number	Number	% HIV+	Number	% HIV+
Heroin	658	76	3	582	2
Speedball	151	10	0	141	2
Cocaine	150	18	11	132	2
Amphetamine	399	53	18	346	1

- HAART availability may be associated with increases in unsafe sex due to reduced fear of HIV and improvement in the health of persons with HIV infection.

TRENDS IN STD RATES AS AN INDICATOR OF HIV RISK:

- After declining since 1983, STD rates increased substantially among MSM in King County. There were zero cases treated at the county STD clinic in 1996, but 50-70 cases annually 1999 to 2002. The presence of an STD increases the likelihood of HIV transmission by two-fold to five-fold according to the Centers for Disease Control and Prevention, and is a marker for high risk sexual behavior.
- Gonorrhea cases among MSM are increasing. In 2001, there were 160 cases of gonorrhea among MSM at the Public Health STD Clinic, but 280 gonorrhea cases among MSM in 2002.
- Chlamydia diagnoses reported in MSM in King County have more than quadrupled in the past 7 years, from about 30 cases reported in 1996 to about 128 in 2002.
- Early syphilis rates among MSM in King County rose from zero in 1996 to 82 per 100,000 in 1998 and about 125 per 100,000 in 2002.
- Early syphilis rates among HIV-infected MSM climbed from 50 per 100,000 in 1997 to 783 per 100,000 in 1999 and 590 per 100,000 in 2002.
- Among all MSM diagnosed with early syphilis 1998-2001, 68% had known HIV infection.
- Of 681 MSM tested in the unlinked (anonymous) STD Clinic survey during 2000-2001, 30% of MSM with gonorrhea were HIV+ compared to 8% of those without gonorrhea. [The overall HIV prevalence among MSM in this survey was 9.7%]. Meanwhile, 3% of women and non-MSM male STD clients diagnosed with gonorrhea, and 0.5% without gonorrhea, were also diagnosed with HIV infection.

SUBGROUP HIGHLIGHTS:**Young MSM (Table 13):**

- Young MSM are at high risk of acquiring HIV. Data from the Public Health HIV/AIDS Program HIV testing site indicates that of 2,361 HIV+ male clients seen between 6/86-12/00, 1% reported first testing HIV+ at age 19 or younger; 11% age 20-24 and 25% aged 25-29.
- The Seattle Young Men's Survey (YMS) conducted by Public Health-Seattle & King County between 10/97 and 2/00 revealed an HIV prevalence of 2% among MSM aged 15-22 compared to 5% in MSM aged 23-29.
- Six large US cities conducted YMS in 1998-00 and surveyed more than 2,400 MSM aged 23-29. Seattle had the lowest HIV prevalence (5%) and Dallas had the highest (18%). Overall, 46% of YMS participants reported unprotected anal intercourse during the previous 6 months; the figure for Seattle was 48%.
- In the Seattle YMS survey of MSM aged 23-29 (Phase II YMS), 22 participants tested HIV positive. Nine of these men (41%) had been unaware that they were HIV positive prior to testing in YMS.
- Younger men were more likely to have multiple recent sex partners and higher rates of alcohol and drug use. For one-quarter of YMS participants who had multiple sex partners recently, being high on alcohol or drugs was a reason for unprotected sex. These risks were more common among MSM age 23-29 compared to those 15-22 years of age, as shown below:

Table 13: Risk behaviors in past 6 months among young MSM in King County in YMS

	15-22 years (n=368)	23-29 years (n=462)
≥ 5 male sex partners	23%	29%
Sex while high on alcohol or drugs	54%	71%
Anal sex	67%	78%
Unprotected anal sex	38%	48%

Men of color

- Among men of color currently living with HIV/AIDS, 68% reported male-male sex (with or without IDU) as a risk factor for HIV; this proportion is lower than among White men (93% reporting male-male sex).
- Of male HIV/AIDS cases reported through 2002, 58% of African Americans were MSM or MSM/IDU, compared to 78% of Latinos/Hispanics, 82% of Native Americans/AK Natives, and 80% of Asian & Pacific Islanders.
- Overall, 10% of men living with HIV/AIDS were both MSM and IDU. 32% of Native American /AK Natives, 11% of Whites, 4% of Asian & Pacific Islanders, 7% of African Americans, and 6% of Latinos were MSM/IDU.

Bisexual men

- Of 7,575 MSM who sought HIV counseling and testing at Public Health's HIV/AIDS Program testing site between 1/88-8/97, 17% also reported one or more female sex partners in the past 12 months. This proportion increased from 15% in 1988 to 21% in 1995 and then decreased to 17% in 1997. The proportion of condom use for vaginal intercourse among MSM increased from 14% in 1988 to 36% in 1997.

Amphetamine use in MSM drug injectors

- Amphetamine use was reported by 40% of MSM drug injectors compared to 4% of non-MSM drug injectors in unlinked prevalence surveys conducted at King County drug treatment centers in 1988-97.
- In an interview study of IDUs conducted in King County from 6/94-5/98, amphetamine was the most common injection drug for 33% of MSM injectors compared to 5% of all other injectors. In this same study the prevalence of HIV was 47% among MSM whose usual injection drug was amphetamine compared to 14% among MSM who primarily injected other drugs.



HIV/AIDS in Injection Drug Users

Excludes injection drug users who are also men who have sex with men

SUMMARY: As in other cities in the western US, the number of cases of HIV and AIDS among drug injectors is far lower than among men who have sex with men. However, the percent of AIDS cases attributable to injection drug use (IDU) has increased from 4% in 1982-87 to 7% in 2000-02. Drug injection is a more common route of HIV transmission for women compared to men and for people of color compared to whites.

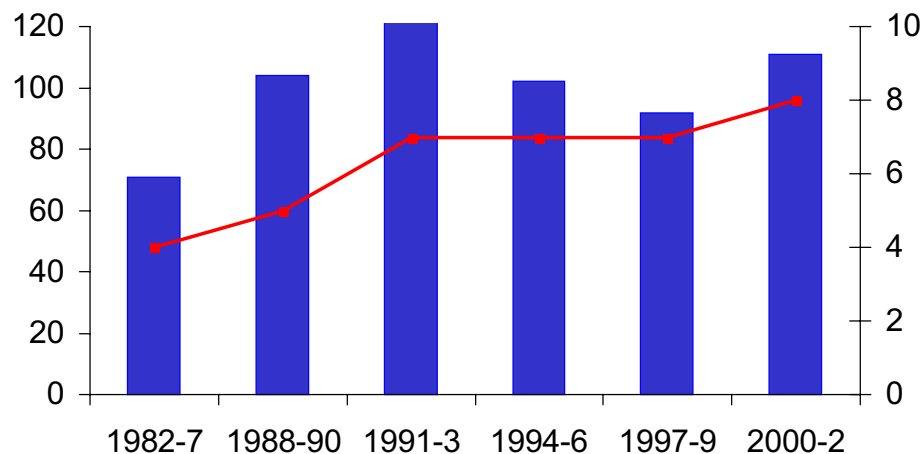
BACKGROUND AND POPULATION SIZES:

- There are an estimated 150,000 people in King County at increased risk of HIV infection because of illicit drug use or alcohol abuse. About 15,000 of these are at increased risk due to drug injection.
- Based on estimates from reported cases, up to 620 HIV-infected heterosexual IDU reside in King County.
- The estimated number of men who currently have sex with men and who also currently inject drugs is about 800. Most of these men are thought to have acquired HIV through sexual transmission rather than by sharing of injection equipment.
- The information in this fact sheet focuses on heterosexuals whose primary HIV risk is injection drug use. The fact sheet on men who have sex with men (MSM) also addresses MSM who inject drugs.

STATUS AND TRENDS IN HIV/AIDS CASES (Figure 14):

- The first AIDS cases among King County IDU males and females were reported in 1986. Among the 5,115 King County residents reported living with HIV or AIDS December 31, 2002, 344 or 7% were IDU.
- The proportion of HIV/AIDS cases attributed to IDU among heterosexuals has increased from 4% of cases in 1982-87 to 7% in 2000-02.

Figure 14: Number and Percent of HIV and AIDS Diagnoses
Among IDU, by year of diagnosis



- Nationally, IDU make up 25% of all AIDS cases, or about four times that in King County (6%). The proportion of IDU cases in WA outside of King County (15%) is 2½ times that in King County.
- While the number of male IDUs (235) reported living in King County with HIV/AIDS is higher than female IDUs (109), the proportion of male cases whose infection was attributed to IDU is 5% vs. 23% of females.

- Injection drug use is a relatively more common route of HIV transmission for King County African Americans with HIV/AIDS (15% of living cases), Hispanics (9%), and Native Americans (27%), compared to Whites or Asian and Pacific Islanders (4% each).

HIV PREVALANCE AND INCIDENCE:

- There are about 620 (4%) HIV infections among the estimated 15,000 IDU residing in King County.
- In unlinked (anonymous) surveys conducted by Public Health-Seattle & King County, 1.5% of over 7,000 IDU entering King County drug treatment programs from 1988-99 tested HIV positive. HIV prevalence did not change significantly over this time period.
- IDU in treatment (such as those tested in the unlinked surveys) tend to be at lower risk of HIV than other injectors. In one study, HIV prevalence among IDUs recruited at King County jail and at needle exchange sites was more than twice as high as IDUs in treatment.
- Evidence of the instability of the HIV prevalence among IDUs appeared in nearby Vancouver BC (Canada) in 1994 when an outbreak of HIV began. During the 1994-1997 period, the HIV prevalence in IDUs there rose from 3% to 23%, with a high annual incidence rate of 18 new infections per 100 IDUs.

BEHAVIORAL RISKS AMONG IDUs ARRESTED IN KING COUNTY:

- Public Health-Seattle & King County conducts an HIV and risk behavior survey of IDUs arrested and booked into the King County Correctional Facilities in Seattle and Kent. Between 8/98 and 7/02, 1,822 persons (76% men and 24% women) participated in the survey.
 - ✓ 38 (2%) were HIV positive,
 - ✓ 22 of the 38 (58%) were aware of their HIV positive status.
 - ✓ 87% reported a prior HIV test.
 - ✓ The median age when study participants began injecting drugs was 19 years.
 - ✓ In the past 6 months, 61% had injected with a needle that had been used by somebody else.
 - ✓ In the past 6 months, 72% had shared cookers and 61% had backloaded (i.e., divided up drugs with somebody else using the same needle).

OTHER MEASURES OF RISK:

- Although HIV prevalence is relatively low in King County IDU, a high proportion have evidence of previous exposure to other blood-borne viruses. These include antibody to hepatitis C virus (present in more than 80%), antibody to hepatitis B virus (present in almost 70%), and antibody to Human T-cell Lymphotropic Virus II (present in 10% or more). *[Note that hepatitis B and C are more easily transmitted than HIV.]*
- There is also evidence that transmission of other blood-borne viruses in local IDU does occur as a result of behaviors that can transmit HIV. In a follow-up study of Seattle-area IDU who had no serologic markers of previous exposure, 20% acquired hepatitis C and 10% acquired hepatitis B virus infection over a one-year period. These incidence rates suggest that risk behaviors persist and there is a potential for future spread of HIV among IDU. In the same study, HIV incidence in IDUs was less than 0.5% per year.



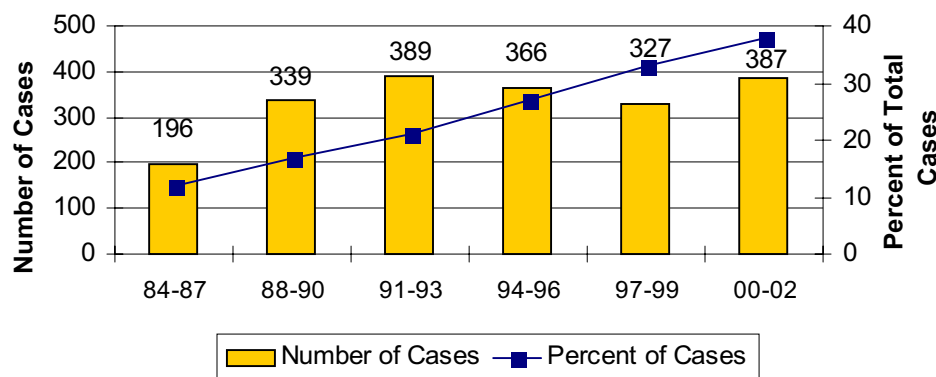
HIV/AIDS in People of Color

SUMMARY: In Seattle-King County, as in the U.S. as a whole, epidemiologic data indicate that HIV and AIDS are disproportionately affecting African Americans, American Indians/Alaska Natives, and persons of Hispanic ethnicity compared to Whites or Asian/Pacific Islanders. The racial disparity is even greater among women compared to men.

STATUS AND TRENDS IN HIV/AIDS CASES, WITH POPULATION SIZES (Figure 15, Tables 14 and 15):

- Of the total of 8,400 estimated King County residents currently living with HIV infection (including those with AIDS), an estimated 2,250 (27%) infections are among people of color.
- By race/ethnicity the estimated number of HIV-infected persons includes: 6,150 (73%) non-Hispanic Whites; 1,240 (15%) non-Hispanic African Americans; 690 (8%) persons of Hispanic ethnicity; 180 (2%) Asian/Pacific Islanders; and 140 (2%) Native American/Alaska Natives.
- As shown below in the figure below, the percent of HIV/AIDS cases among people of color has risen steadily since the early years of the epidemic in King County, going from 12% of cases in 1982-87 to 27% in 1994-96 and 38% in 2000-02. This trend was statistically significant specifically among African Americans and Hispanic persons.

Figure 15: Number & Percent of New HIV/AIDS Diagnosis in People of Color, King County, 1982-2002



- Population-based rates in recent years (2000-2002) demonstrate the epidemic's disproportionate impact on persons of color, with rates among African Americans, Hispanics, and Native American & Alaska Natives being 2 to 5 times that of Whites in King County. HIV/AIDS rates among Asians & Pacific Islanders, however, continue to be significantly lower than Whites, as shown in the table below.

Table 14: Rates of New HIV Diagnoses in King County 2000-02, by race and ethnicity

	King County 2000 Census population		Actual King County HIV cases diagnosed 2000-02		Average Annualized Rate per 100,000 population	Rate Ratio (Rates compared to white rate)
	No.	(%)	No.	(%)		
White, not Hispanic	1,309,120	(75.4)	651	(62)	16.6	--
African American, not Hispanic	105,205	(6.1)	234	(22)	74.1	4.5
Hispanic	95,242	(5.5)	110	(11)	38.5	2.3
Asian & Pacific Islander	210,156	(12.1)	31	(3)	4.9	0.3
Native American & Alaskan Native	17,311	(1.0)	12	(1)	23.1	1.4
Total	1,737,034	(100)	1,043	(100)	20.0	--

- The racial disparities are greatest among African American women compared to other race/ ethnicities. Among persons living with HIV/AIDS, the actual prevalence rate among African American females (446 per 100,000) in King County was 13 times that for White females (30 per 100,000). Rates among Native American & Alaskan Native (307) and Hispanic women (83) were also substantially higher than the rates among White women but these comparisons must be interpreted with caution due to small numbers of cases among Native American and Hispanic women.
- More African American and Native American/AK Native (NA/AN) men and women acquire HIV from injection drug use compared to other groups, as shown in the table below. Hispanic women with HIV are far less likely to be drug injectors (5% of cases) compared to White (29%) or African American women (21%). The percent of persons living with HIV/AIDS by race and gender for selected HIV exposure categories is given below (King County HIV/AIDS case data reported through 6/02).

Table 15: Distribution of known exposure by sex among persons living with HIV/AIDS

MALES (N = 4,648)	White	Af Am	Hisp	Asian	NA/AN
MSM non-injectors	82%	51%	72%	76%	50%
MSM drug injectors	11%	7%	6%	4%	32%
Heterosexual drug injectors	3%	13%	10%	4%	15%
Heterosexual at-risk partner, non-injectors	1%	13%	3%	3%	2%
Other or Undetermined	2%	16%	9%	13%	2%
FEMALES (N = 467)					
Drug injectors	28%	20%	6%	0%	64%
Heterosexual at-risk partner, non-injectors	47%	45%	58%	38%	18%
Transfusion/blood product or other known risk	2%	4%	3%	8%	0%
Perinatal exposure	3%	4%	6%	8%	0%
Other or Undetermined	20%	27%	28%	46%	18%

HIV PREVALENCE:

- Seroprevalence data from unlinked surveys of King County Harborview Sexually-transmitted Disease (STD) Clinic patients indicate higher rates of HIV among heterosexual African American and Hispanic men and women compared to Whites. In STD Clinic surveys conducted in 2000-01, 0.2% of heterosexual Whites (n=1504) tested HIV positive compared to 0.7% of African Americans (n=562) and 0.7% of Hispanics (n=146). No heterosexual Asian/Pacific Islanders (n=746) since 1990 or American Indian/Alaska Natives (n=265) since 1992 have tested HIV positive in this survey.
- Seroprevalence data from unlinked surveys conducted in 1997 to 1999 (when the survey ended) in drug treatment facilities located in King County show significantly lower HIV prevalence rates among Whites (1.0%) entering drug treatment compared to African Americans (3.2%) or American Indians/Alaska Natives (6.2%). None of the 106 Asian/Pacific Islanders tested in this survey since 1991 were HIV positive.
- In surveys of women giving birth in King County from 1/89 to 5/95 (when the survey ended), the percent of African American women testing HIV positive (0.3%) was 10 times the rate for white women (0.03%).

OTHER MEASURES OF RISK:

- Information about other STDs is useful in evaluating the risk of HIV transmission. King County STD data indicate much higher rates of gonorrhea, syphilis, and chlamydia among African Americans compared to Whites. For example, in 2002 the rate of gonorrhea among African American men was nearly 7 times higher, and among African American women 22 times higher, than the rate among Whites. Compared to Whites, gonorrhea rates in 2002 were also significantly higher among Native American & Alaska Natives and Hispanics, but lower among Asian & Pacific Islanders.
- Among adolescents, the birth rate can also be used as an indication of unprotected sexual activity and therefore risk of HIV infection. King County birth rates in 1997-99 for women 15 to 17 years of age were highest among Hispanics (49 per 1,000), Native American & Alaska Natives (52 per 1,000), and African Americans (32 per 1,000) and lowest among Whites (11 per 1,000) and Asian & Pacific Islanders (12 per 1,000).



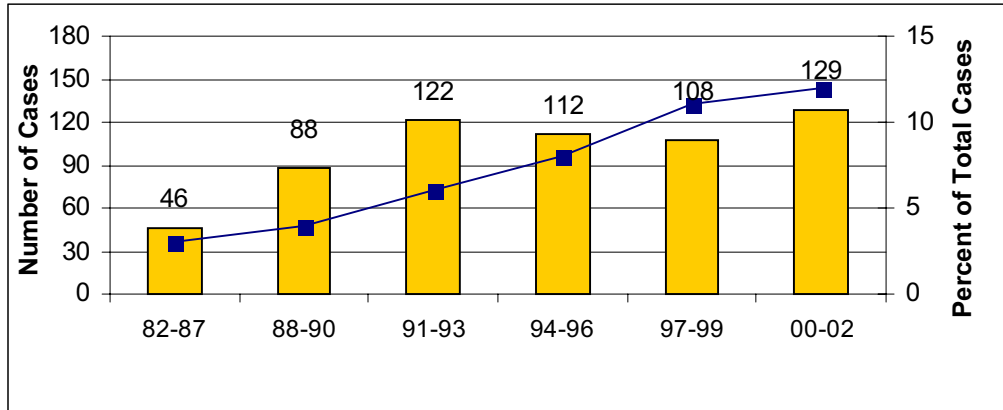
HIV/AIDS in Women

SUMMARY: In King County, women represent 9% of the total HIV/AIDS cases. However, the proportion of AIDS cases among women and the number of women living with HIV infection have increased in recent years, and this trend is expected to continue. Women with HIV/AIDS tend to be younger than men, most acquire HIV through sexual contact with HIV-infected men, and women of color are disproportionately affected.

STATUS AND TRENDS IN HIV/AIDS CASES (Figure 16, Table 16):

- Women aged 13 and over represent 9% (451) of the total of 5,115 King County residents reported living with HIV/AIDS through December 2002.
- The proportion of persons with HIV/AIDS who are adolescent and adult women was higher in Washington state (10%) and nationally (18%) at the end of 2002.
- The number of HIV/AIDS cases diagnosed in King County women continues to increase, as shown in the figure below. By three-year period, cases in women have increased with about 30 women diagnosed with HIV annually 1988-1990, and a projected 50 per year in 2000-2002.
- Whereas case numbers among women have increased over time, case numbers among men have declined recently. As a result, the percent of King County HIV/AIDS cases occurring in women has increased over time, as shown in the figure below, with women climbing from 3% of cases in 1983-87 to 12% of cases diagnosed in 2000-02.

Figure 16: Number & Percent of HIV/AIDS Cases in King County Women, 1982-2002*



*Recent years not adjusted for reporting delay; case data reported as of 12/02.

- In King County, women tend to be diagnosed with HIV at an earlier age than men — 37% of King County women with HIV/AIDS were 20-29 years old at their diagnosis of HIV infection compared to 26% of men. Also, 6% of women were aged 13-19 at HIV diagnosis compared to 1% of men.
- The majority (64%) of women living with HIV/AIDS in King County acquired HIV through heterosexual contact, 32% through use of injection drugs, and 4% by blood transfusion. These percentages are calculated after adjusting for the 24% of all cases among females that are reported without known risk.
- Among King County women living with HIV/AIDS, the actual prevalence rate is substantially higher (see Table 16) among African Americans (13 times), American Indian/Alaska Natives (9 times), and Hispanic women (3 times). The rate is about 1/3 as high among Asian & Pacific Islander women.

**Table 16: Prevalence Rates per 100,000
by Race Among King Co. Women Living with HIV/AIDS, 2002***

Race/ethnicity	Number of HIV/AIDS cases*	Percent of cases in women	Rate per 100,000 women
White, non-Hispanic	194	42%	30
Black, non-Hispanic	199	43%	446
Hispanic	36	8%	83
Asian/Pacific Islander	13	3%	13
American Indian/AK Native	22	5%	307

*Case diagnosed and reported through 12/31/2002 but not adjusted for reporting delay.

POPULATION SIZES:

- The estimated number of King County women who are at-risk for HIV because they are drug injectors or sex partners of drug injectors is 9,000-15,000.
- The estimated number of HIV positive adult or adolescent women in King County is approximately 750. This estimate includes HIV-infected women who have not been diagnosed and a smaller number of women who have tested HIV positive but who have not been reported.

HIV PREVALENCE (Table 17):

- Based on the above estimate and a 2000 Census of 743,804 women, we estimate that 0.1% of all women age 13 and over are infected. The rate is higher among African American, Hispanic, and Native American women.
- HIV surveys in King County have been conducted to directly measure HIV prevalence (percent of people currently infected) among selected populations, as shown below. None of these surveys adequately measures the true prevalence of HIV among all women in King County.

Table 17: Surveys Measuring HIV Prevalence among King County Women

Survey	Women No. tested	%HIV +	Survey	Women No. tested	%HIV +
Childbearing Women 1989-1995	123,268	0.04%	PH-SKC HIV Counseling 1988-6/2000	52,900	0.4%
STD Clinic 1988-2001	7,527	0.3%	Job Corps (WA State) 1988-1997	4,806	0.10%
Drug Treatment Centers 1988-1999	3,255	1.4%	Military Recruits (WA State) 1985-2001	25,303	<0.01%

- The prevalence of HIV among the 7,527 women tested for HIV in the unlinked (anonymous) STD Clinic survey has been less than one-half of one percent and has been stable over a 12-year study period from 1988 through 2001. Since these women were seeking care for a possible sexually-transmitted disease, women in this survey are considered to be higher risk of HIV than the general population of women.

OTHER MEASURES OF RISK:

- Monitoring other sexually or parenterally transmitted diseases can indicate risk for HIV infection. For example, gonorrhea rates in Seattle-area women declined steadily in the 1990s to a low of about 39 cases per 100,000 women in 1999. However in 2000 and 2001, gonorrhea rates increased to 51 and 66 per 100,000, respectively. As with HIV/AIDS, gonorrhea rates among African American women in King County are substantially greater than those in white women.



HIV/AIDS in Pregnant Women and in Children

SUMMARY: Relatively few local children have been diagnosed with HIV or AIDS, and all recent infections have been among children born to an HIV-infected mother. In King County, 0.4% of all persons diagnosed with HIV infection were among children under age 13, compared with 1% to 2% of cases in some parts of the U.S. We estimate that 14 out of every 10,000 women of childbearing age in King County has HIV, with significantly higher rates among women of color and their children compared to Whites. The Centers for Disease Control and Prevention has reported a steep decline nationwide in perinatally-acquired HIV resulting from rapid implementation of zidovudine and other antiretroviral therapies to reduce HIV transmission from mother to child. These successes highlight the importance of educating health care providers and the public in general about the benefits of HIV counseling and testing of pregnant women and those who may become pregnant.

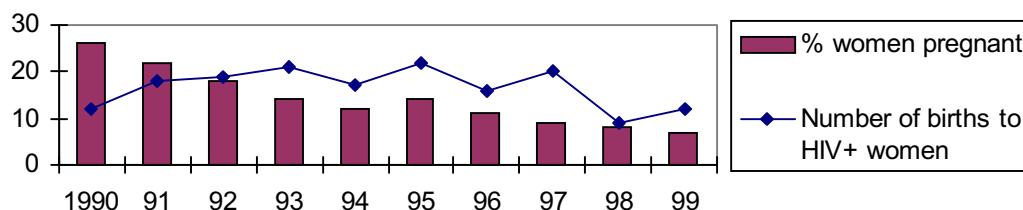
AIDS/HIV CASES AMONG CHILDREN IN KING COUNTY:

- Only 32 pediatric HIV infections (age 0 to 12 years at the time of HIV diagnosis) have ever been reported in King County. These represent 0.4% of the 8,628 persons HIV diagnosed in King County.
- Twenty-eight of the 32 HIV cases in children were infected perinatally (before birth or during labor and delivery). Three children were infected through blood products administered for hemophilia treatment; birth information was missing for one child.
- There have been no blood-product associated HIV infections diagnosed among children since 1986.
- Fifteen of the 32 pediatric cases developed AIDS, and eight have died.
- The most recent case of documented perinatal transmission was in 1997. None of the estimated ten to fifteen infants born to HIV-infected mothers annually since 1997 have become infected.
- Of the 24 children living, most (17) are now adolescents or young adults over age 13.
- The race/ethnicity of the 32 children with HIV/AIDS is 50% African American; 31% White; 13% Hispanic; and 6% Asian/Pacific Islander.

HIV POSITIVE PREGNANT WOMEN RECEIVING CARE IN KING COUNTY, 1990-1999 (Figure 17):

- Pregnancy is common among HIV-infected women. In the ASD study sponsored by Public Health—Seattle & King County, 509 HIV positive women receiving care with King County providers were followed for an average of 3 years and 133 (26%) were pregnant at any time between 1990-99. *[Note: Some of these 509 women were residents of other counties and some are now deceased.]*
 - ✓ There were 9 - 21 births per year among the HIV+ women followed in this study (see figure).
 - ✓ The percent of HIV+ women who were pregnant declined from 26% in 1990 to 7% in 1999.

Figure 17: Pregnancies and Births among HIV+ Women, 1990 - 1999



- ✓ The average age of women with any pregnancy was 27 years, relative to 34 years for those without pregnancies. One-fourth (24%) of these women had two or more pregnancies.
- ✓ There were no differences in the race of women who became pregnant vs. those who did not.
- ✓ Pregnant women were less likely than women with no pregnancy to have a diagnosis of severe mental illness (psychoses & bipolar disorders—5% vs. 14%), but equally likely to be diagnosed with substance abuse (injection or non-injection drug use or alcohol abuse—42% vs. 43%).

HIV/AIDS AMONG WOMEN OF CHILDBEARING AGE (15-44 years) IN KING COUNTY:

- There are an estimated 750 HIV-infected adult or adolescent women in King County.
- Approximately 83% of HIV-infected women are 15 to 44 years old, resulting in an estimated 435 to 650 (midpoint = 545) HIV-infected women of childbearing age living in King County.
- Given that there are about 384,000 women age 15-44 years living in King County, this means about 14 out of every 10,000 women of childbearing age has HIV infection.
- Women comprise 7% (148/2104) of persons living with AIDS and 11% (134/1183) of persons living with HIV who were 15-44 years old at the time of their diagnosis. *[Note that HIV case reporting is incomplete at this time].*
- Women comprised 39% of the 57 cases age 13 to 19 at the time of their HIV or AIDS diagnosis.

INFANTS BORN TO HIV POSITIVE MOTHERS AND MATERNAL ANTIRETROVIRAL USE:

- Since 1987, 217 pregnancies among HIV infected women were clinically managed by experts at the University of WA Department of Obstetrics & Gynecology, Public Health—Seattle & King County's Northwest Family Center or Children's Hospital & Medical Center. Approximately half of these women were residents of King County. Among the 71 children born to these women between 1987 and 1993, eight (11%) became infected with HIV. Since 1994, when anti-retroviral therapy during pregnancy became standard, only one of 137 children (<1%) subsequently became HIV infected.
- Since 1994, there have been 9 HIV-infected children born to mothers who were not in care at one of the above facilities. Many of these mothers were unaware of their HIV status prior to pregnancy.
- Of 96 pregnant women followed by local experts since 1997, 70% were prescribed highly active antiretroviral therapy, 14% dual therapy, and 16% monotherapy. Only one woman received no retroviral therapy.

HIV PREVALENCE AND INCIDENCE:

- The Survey of Childbearing Women was a federally-funded, population-based survey that used blood obtained by metabolic screening programs to anonymously test newborns for HIV antibodies; a positive test indicated maternal HIV infection. The survey tested 123,268 infants born from 1989-95 and found maternal HIV infection in 0.04% (about 4 in 10,000) of King County women giving birth. Rates of HIV infection were 10 times higher in African American women compared to White women.
- Testing at local publicly-funded counseling and testing sites between 1997-99 found 60 HIV-infected women of 15,635 women tested (less than 4/1000). Among these, 8 of 55 (15%) tested for recent infection by the LS-EIA method were found to have acquired HIV within the past 2 to 5 months.

NATIONAL STUDIES AND POLICY RECOMMENDATIONS:

- A 1994 landmark study known as Pediatric AIDS Clinical Trials Group (PACTG) 076 showed reduction of perinatal HIV transmission from 26% to 8% with maternal and neonatal zidovudine (AZT) use.
- It is now recommended that all pregnant women undergo voluntary HIV screening, and that all HIV positive pregnant women be prescribed an antiretroviral regimen which includes AZT, especially in the last weeks of pregnancy and during delivery, and that children born to these women receive at least AZT.
- Universal HIV screening of pregnant women would reduce provider bias, as providers often do not request HIV tests for women they do not perceive to be at risk; it could also reduce stigmatization around HIV testing that may be felt by pregnant women. The Institute of Medicine has recommended routine HIV testing with an option to decline in writing.
- In PACTG 367, 945 HIV positive pregnant women observed in 1998-99 were accessed for antiretroviral use and pregnancy outcomes.
 - Of the 945 women, 13% received no antiretrovirals, 19% received AZT alone; and 68% received multidrug antiretroviral regimens with or without a protease inhibitor.
 - Transmission rates of HIV to the infants were 26% with no antiretroviral therapy, 8% on AZT alone, and 1% to 3% for the other antiretroviral regimens.
- The risk of perinatal transmission increases if a woman acquires HIV during pregnancy, has a high HIV viral load, refuses antiretrovirals, and/or breastfeeds.



HIV/AIDS in Homeless Persons

SUMMARY: The McKinney Act (Public Health Law 100-628, November 1988) defines a homeless person as: "an individual who lacks a fixed, regular, and adequate residence or an individual who has a primary night-time residence that is either:

- a supervised or publicly operated shelter designed to provide temporary or transitional living accommodation; or
- a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings."

Although there have been no local population-based surveys of HIV infection in the homeless in King County, studies from other areas of the country indicate homeless men and women are at higher risk for HIV. Homeless persons reported with HIV/AIDS in King County were more likely to be persons of color and to have been exposed through injection drug use compared to those who were not homeless.

STATUS OF HIV/AIDS CASES (Table 18):

- Among reported HIV/AIDS cases, homelessness is defined as having no resident zip code at time of the HIV or AIDS diagnosis. This definition undercounts the number of homeless HIV/AIDS cases if, for example, the zip code of a shelter or friend's home was reported as the zip code of residence. Two percent (2%) of the 5,115 King County residents living with HIV or AIDS were reported as homeless.

**Table 18: King County Residents Living with HIV/AIDS
as of December 2002, by Homeless Status**

	Homeless		Not Homeless	
	Number	(%)	Number	(%)
Sex				
Male	76	(85)	4,572	(91)
Female	13	(15)	454	(9)
Age				
0-19 years	5	(5)	121	(2)
20-24 years	11	(12)	492	(10)
25-29 years	15	(17)	1,007	(20)
30-39 years	43	(48)	2,212	(44)
40-49 years	11	(12)	932	(19)
50+ years	4	(4)	262	(5)
Race/Ethnicity				
White	45	(51)	3,687	(73)
African American	30	(34)	740	(15)
Hispanic	7	(8)	405	(8)
Asian/Pacific Islander	0	(0)	108	(2)
Am Indian/AK Native	7	(8)	77	(2)
Unknown Race	0	(0)	9	(0)
HIV Exposure Category				
Male/male sex (MSM)	22	(25)	3,562	(71)
Injection drug user (IDU)	33	(37)	311	(6)
MSM/IDU	25	(28)	440	(9)
Heterosexual sex	3	(3)	328	(7)
Other or undetermined	6	(7)	385	(8)
TOTAL	89	(100)	5,026	(100)

- Among homeless persons with HIV/AIDS, 49% were persons of color, and 65% were injection drug users (IDUs) including men who have sex with men, compared to 27% and 15%, respectively, among persons who were not homeless at diagnosis.

POPULATION SIZE:

- Approximately 5,500 persons (500-2,000 of whom are youth) are homeless in King County on any given day, and an estimated 25,000 persons have experienced homelessness in the past year. Unsheltered persons outside of Seattle are the least documented segment of King County's homeless although the annual One Night Street Count was expanded to some of these areas in 2002.
- **The 2002 One Night Street Count found an 18% increase in people surviving outside** when comparing areas counted in 2001 with like areas in 2002. Forty-five percent of the people found were men, 8% were women, 2% were minors (under 18), and 45% were of unknown gender and age.
- Homelessness is a particular concern among injection drug users in King County. In a Public Health survey of 1,824 drug injectors at the King County Correctional Facility interviewed between 8/98 and 7/02, 60% reported having no permanent residence prior to their arrest.

HIV PREVALENCE:

- In HIV prevalence surveys conducted by the Centers for Disease Control and Prevention between 1989 and 1992 in health clinics serving the homeless in 10 different cities (not including Seattle), the median HIV prevalence was 3.3%.¹
- Unlinked surveys of drug users entering treatment in King County between 1997 and 1999, showed that 8% had no permanent address. Those with no permanent address were more likely to test positive for HIV infection (2.5% vs. 1.4%).
- A 1997 survey of homeless persons attending a downtown Seattle clinic serving a large homeless population found no HIV positives among 103 persons tested (95% confidence interval 0-3.5%).

BROADER ISSUES AND DATA GAPS:

- HIV infection is one of many serious issues facing the homeless. The causes of homelessness and its association with mental illness and substance use problems need to be better understood and better addressed in order to develop effective prevention and intervention programs for this population,
- Improved characterization of demographics, risk behaviors, and health status (including HIV, other STDs, TB, substance use, and mental illness) among the homeless is also important.
- Tuberculosis cases among homeless persons increased in King County in 2002². During 2002, thirty cases of TB were diagnosed among homeless persons compared to 12-15 cases reported five of the six previous years. Twenty-three percent of the 2002 TB cases were co-infected with HIV.

¹Allen DM, Lehman JS, Green TA, et al. HIV among homeless adults and 'run away youth' 1989 - 1992. **AIDS** 1994;8:1593-1598.

²Narita M, Goldberg S, Lake L, et al. Public Health Dispatch – Tuberculosis Outbreak Among Homeless Persons – King County WA, 2002-2003. **MMWR** 2003; 52(49):1209-1210.



HIV Infection Among Incarcerated People in King County

SUMMARY: Although there have been no comprehensive population-based surveys of HIV infection among persons at the Regional Justice Center in Kent, or the King County Correctional Facility in downtown Seattle, results of a voluntary testing program conducted since 1986 indicate that about 2% of inmates tested were HIV positive. Incarcerated populations tend to have a higher prevalence of HIV infection than the general population, in part because they are more likely to have engaged in high-risk behavior such as injection drug use. There are also very high rates of chronic hepatitis C, a virus that is also spread by sharing injection equipment. HIV and hepatitis C infection among inmates are especially significant health concerns because jail populations, both locally and nationally, continue to increase each year. Close monitoring is warranted.

STATUS AND TRENDS IN HIV INFECTION (Table 19):

- The number and rate of people incarcerated in the US has risen dramatically in recent years from 2,092,630 (601/100,000 population) in 1995 to 2,593,460 (686/100,000) in 2001.¹ The HIV prevalence among inmates was estimated to be 2.2% in males and 3.6% in females in 2000.² The number known to be HIV+ declined from 25,801 in 1999 to 25,088 in 2000 in federal and state prisons.
- The Washington Department of Health surveyed incoming inmates to state prisons in 1995 and 1997 and found an HIV prevalence of 1.0% in males and 0.8% in females. A total of 90 persons were known to be infected with HIV in state and federal prisons in Washington State by the end of 2000.²
- The average daily King County adult and juvenile detention populations increased from 1,946 in 1992 to 2,906 in 2001. The average length of stay was 18.9 days in 2001. Jail staff estimate that on any given day about 1-2% of inmates, or about 60 people, are HIV positive.
- Results of voluntary HIV testing in King County correctional and detention facilities during the past 10 years are shown in Table 19. Of 13,025 persons, 247 (1.9%) people were HIV+.
- As shown in Table 19, HIV prevalence was greatest among men who had sex with men (MSM: 14%) and MSM who reported injecting drugs (MSM/IDU: 8%).
- While the HIV prevalence rate was lower in male and female drug injectors (IDU: 2%), injection drug use was the risk category associated with the largest number of HIV infections: 58 (29%) of the 199 HIV+ men and 24 (50%) of the 48 HIV+ women.

**Table 19: HIV Prevalence among Persons Incarcerated in King County
by Gender & HIV Risk, 7/92 - 6/02**

MALES: Risk Category	# Tested	# HIV positive	% HIV positive
Male-male sex (MSM) and IDU	491	41	8%
MSM	273	38	14%
Injection drug use (IDU)	4,015	58	1%
Partner of HIV positive	116	6	5%
Partner of IDU	1,114	7	1%
Sex for money or drugs	950	8	1%
Other risk^	1,486	7	<1%
No risk identified	1,955	34	2%
Total, males	10,400	199	2%

^'Other risk' category includes transfusion recipients, clients reporting needlesticks or other blood exposure, and clients reporting multiple heterosexual partners.

Table 19 (continued)

FEMALES: Risk Category	# Tested	# HIV positive	% HIV positive
Injection drug use (IDU)	1,531	24	2%
Partner of MSM	107	2	2%
Partner of HIV positive	27	1	4%
Partner of IDU	227	1	<1%
Sex for money or drugs	214	6	3%
Other risk [^]	194	0	0%
No risk identified	325	14	4%
Total, females	2,625	48	2%

[^]'Other risk' category includes transfusion recipients, clients reporting needlesticks or other blood exposure, and clients reporting multiple heterosexual partners.

BEHAVIORAL RISKS AMONG IDUs ARRESTED IN KING COUNTY:

- Public Health-Seattle & King County conducts an interview survey of injection drug users recently arrested and booked into the King County Correctional Facility (the Kiwi Study). Between 8/98 and 7/02, 1,822 persons (76% men and 24% women) participated in the study.
 - ✓ Thirty-eight (2%) of the 1,822 persons tested were HIV positive.
 - ✓ Of the 38 testing positive, 22 (58%) were aware of their HIV infection.
 - ✓ 86% of male participants and 92% of female participants reported a prior HIV test.
- The survey showed injection risk behaviors prior to incarceration were common among the 1,822 IDU interviewed.
 - ✓ The median age when study participants began drug injection was 19 years.
 - ✓ In the past 6 months, 61% had injected with a needle that had been used by somebody else before them.
 - ✓ In the past 6 months, 72% had shared cookers.
 - ✓ In the past 6 months, 61% had backloaded (divided drugs with somebody else using the same syringe).
- The survey also showed that sexual risks were common as evidenced by the report of a history of at least one sexually transmitted disease by 40% of participants.

OTHER MEASURES OF RISK:

- **Prevalence of drug injection behavior:** Information from various national studies place the prevalence of drug injection in prison and jail populations at between 12-20%.²
- **Prevalence of STDs:** Several studies have documented a higher rate of STDs in incarcerated populations than in the general population. One study of women entering a Washington State prison found a 23% self-reported rate of previous STDs.³
- **Hepatitis C infection:** Hepatitis C infection is transmitted by sharing drug injection equipment and is very common among the IDU population in King County. In the Public Health Raven Study, 85% of IDU recently released from jail had hepatitis C infection.

For more information see CDC's fact sheets on drug use, HIV, and the criminal justice system. Online at: <http://www.cdc.gov/idu>

¹ Prisoners in 2001. US Department of justice, Bureau of Justice Statistics Bulletin. Online at: <http://virlib.ncjrs.org/Corrections.asp>

² HIV in Prisons 2000. US Department of justice, Bureau of Justice Statistics Bulletin. Online at: <http://virlib.ncjrs.org/Corrections.asp>

³ Young DS. Health Status and Service Use among Incarcerated Women. **Family and Community Health**. October 1998, pp16-31.



HIV/AIDS in Heterosexuals

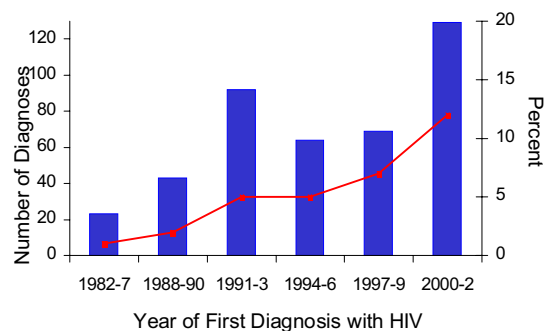
SUMMARY: The proportion of HIV infections of known risk attributable to heterosexual transmission is rising in King County (5% 1994-96 versus 14% 1999-2002) and the U.S. as a whole. Heterosexually contracted HIV is the leading route of infection among women, and is more common among Persons of Color.

DEFINITION: For epidemiologic purposes, HIV transmission is considered heterosexually-acquired only when the infected person is a) not a male who has sex with males, b) does not inject drugs, and c) has a heterosexual partner who is an injection drug user, a bisexual male, or known to be HIV-infected. A person who identifies as heterosexual but without a specific partner at risk, is considered 'no identified risk' and is not counted as heterosexually-acquired. For this reason we may consider surveillance data to be a lowest estimate of heterosexually-acquired infection.

STATUS AND TRENDS IN HIV/AIDS CASES (Figures 18 and 19):

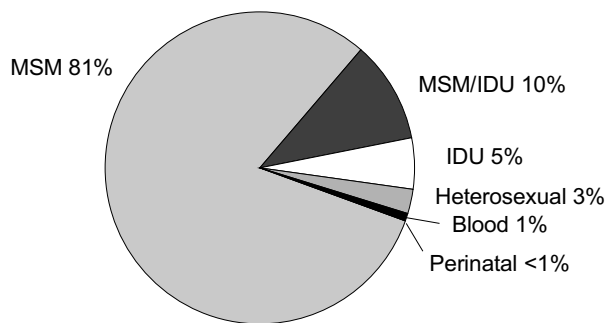
- The proportion of HIV diagnoses attributed to heterosexual transmission is increasing. During 2000-02, 14% of new diagnoses of HIV infection with known risk were attributed to heterosexual contact, compared with 5% of diagnoses 1994-96.
- While the overall number of persons diagnosed with HIV infection is probably level at 400-500 persons each year, the number of heterosexually-transmitted HIV diagnoses continue to climb. There were over 40 diagnoses annually 2000-02 (this number may still be incomplete), compared with just 22 each year in 1994-96.
- Heterosexually transmitted cases are more common among women, African Americans, and residents of King County outside Seattle, and outside of King County - the remainder of Washington. While 22% of transmission among African Americans is heterosexual, only 4% of cases among all other races are heterosexually-acquired. The increase in the proportion of heterosexual cases over time are correlated with the parallel increases for women and African Americans.
- Among persons with known risk, heterosexual transmission accounts for 61% of HIV diagnoses among women, but just 3% of diagnoses among men (see Figure 17).
- The majority of women infected heterosexually had a male partner who was HIV infected but whose risk was unspecified (42%). Fewer male partners injected drugs (10%), were bisexual (5%), or were infected through receipt of blood products (2%, see Figure 17).

Figure 18: Number and Percent of HIV Diagnoses Among Heterosexuals, by year of diagnosis

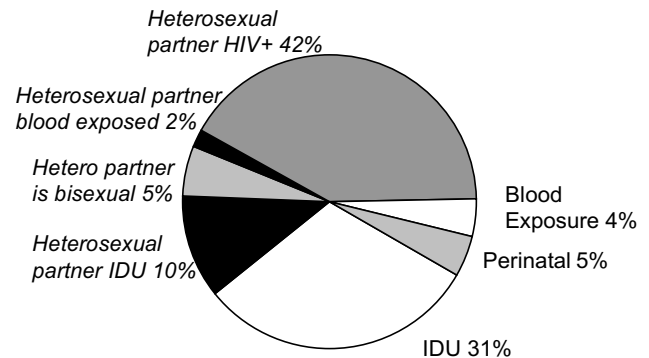


**Figure 19: King County residents living with HIV or AIDS
Through December 2002 by Gender and Exposure Category**

Males, N=4,432 with known risk



Females, N=353 with known risk



POPULATION SIZE:

- The estimated King County population of 15-69 year-old heterosexuals is 1,245,000 (derived from the 2000 Census for ages 15-69, minus an estimated 40,000 exclusively MSM in these ages).

HIV PREVALENCE:

- There are an estimated 560 King County residents with heterosexually acquired HIV infection. An additional 620 HIV infections are among heterosexuals who acquired infection through use of injection drugs, and 70 infections are among heterosexuals who acquired HIV through receipt of blood products.
- Based upon the populations given above, roughly 0.1% of the King County heterosexual population in the age range of 15-69 years are estimated to be HIV positive. Fewer than half of these (0.04%) are heterosexually-acquired infections.
- HIV prevalence among female and male, non drug injecting heterosexual clients seen at the Harborview Sexually-transmitted Disease Clinic (STD) in King County from 1998-99 was 0.3%. Persons attending an STD Clinic are considered at higher risk than the general population.

OTHER MEASURES OF RISK:

- Sexually transmitted infections are an indirect indicator of unprotected sexual activity that could result in transmission of HIV. Due to more acute onset of symptoms for most other STIs compared to HIV, these data may provide more timely information on behavioral trends in the community. Currently the vast majority of gonorrhea and chlamydia infections in King County are presumed to be heterosexually transmitted.
- In 2002, the reported rate of sexually transmitted gonorrhea in King County was 256 per 100,000 in 15-24 year-olds. The rate among 15-24 year-old African Americans (1,329) was twelve times greater than that among Whites (105) of the same age.
- In 2002, King County chlamydia rates were 1,347 per 100,000 persons ages 15-19 compared to 618 per 100,000 in 25-29 year-olds.
- In the HIV Testing Survey conducted at a local STD clinic in 2000, half of both men and women surveyed said they never used condoms during sexual intercourse with their heterosexual partner.



HIV/AIDS in Young People

SUMMARY: In King County there are about 170 HIV infected adolescents age 13-19 and 830 young adults age 20-24. Teenagers living with HIV or AIDS were more likely to be female or acquire infection heterosexually compared to older youth age 20-29. Conversely, fewer teenagers were men who have sex with men (63% MSM, including those who injected drugs) compared to older youth age 20-24 years (75%) or age 25-29 years (82%). Despite the smaller proportions, young MSM are at the greatest individual risk for HIV infection. A recent study of young MSM age 23-29 conducted in six large US cities found that Seattle had the lowest prevalence of HIV (5%), but there were high levels of risky sexual behavior among young MSM in all cities.

STATUS AND TRENDS IN HIV/AIDS CASES (Table 20):

- There were 5,115 King County residents living with HIV or AIDS and reported to Public Health-Seattle & King County at the end of 2002. At the time of first diagnosis of HIV infection, fewer than 1% were younger than 13 years old, 2% were age 13-19, 10% were 20-24, 20% were 25-29, 44% were 30-39, 19% were 40-49, and 5% were age 50 or older.
- Over two-thirds of HIV diagnoses among persons ages 13 to 24 are among males who had sex with other males (with or without injection drug use), 7% were injection drug users (without male-to-male sex), 10% had heterosexual risk, and 3% were infected from blood products received before screening began in 1985.

Table 20: King County Residents by Age of First HIV Diagnosis, as of December 2002

	13-19 years	20-24 years	25-29 years
	Percent	Percent	Percent
Sex			
Male	71%	86%	90%
Female	29%	14%	10%
Race/Ethnicity			
White	71%	70%	73%
African American	17%	15%	14%
Hispanic	9%	10%	9%
Asian/P.Islander	2%	3%	2%
Native American	2%	2%	2%
Exposure Category			
Male-male sex	44%	64%	71%
Injection drug (IDU)	10%	6%	5%
Male-male/IDU	17%	12%	11%
Heterosexual sex	14%	9%	7%
Transfusion / hemophilia	5%	2%	<1%
Undetermined/other	10%	7%	6%
Total Cases	102	503	1,022

POPULATION SIZES:

- The King County 2000 Census for ages 13-19 is 151,661; for ages 20-24 it is 116,597 persons.
- The estimated King County population of gay or bisexual males age 15-24 is 9,500 persons.

HIV PREVALENCE (Table 21):

- Extrapolating from persons living with HIV infection, there are an estimated 170 King County residents age 13-19 with HIV infection, and 830 who are age 20-24 living with HIV or AIDS.
- An estimated 0.1% of teens age 13-19, and 0.7% of young adults age 20-24 are infected with HIV. This dramatic 7-fold increased risk among young adults compared with teens demonstrates the importance of prevention during the years they become sexually active.

- Anonymous surveys have been conducted to determine HIV prevalence (percentage of people currently infected with HIV) in several specific populations in King County. These surveys and other data sources all have unique features, and results cannot be extrapolated to the general population. Data are summarized below:

Table 21: Anonymous HIV Prevalence Surveys Among Youths, 1993 - 2000

Source of data, year(s)	Age (yrs.)	HIV+ / No. tested	% HIV+
AIDS Prevention Program, 1996-2000	<20	27/1122	2.4
AIDS Prevention Program, 1996-2000	20-24	282/4413	6.4
STD Clinic, 1996-99	<20	0/483	0.0
STD Clinic, 1996-99	20-29	14/2783	0.5
Drug Treatment Centers, selected facilities 1997-99	<25	2/127	1.6
Drug Treatment Centers, selected facilities 1997-99	25-29	2/235	0.9
Youth Clinic Survey, 1993	<25	2/138	1.45
Adolescent Clinic Survey, 1993-94	13-22	2/628	0.32
Childbearing Women Survey, 1989-94	<20	7/8,708	0.08
Young Men's Survey, 1997-98	15-18	0/85	0.0
Young Men's Survey, 1997-98	19-22	5/201	2.5
Young Men's Survey, 1998-2000	23-29	22/462	4.7
Job Corps, 1993-97 (Seattle MSA)*	16-24	2/2,180	0.09
Military recruits, 1985-98 (Seattle MSA)*	<20	1/19,364	0.01
Military recruits, 1985-98 (Seattle MSA)*	20-24	8/10,728	0.07

* The Seattle MSA (Metropolitan Statistical Area) includes King, Snohomish and Island counties

- HIV prevalence among MSM 23-29 years of age was estimated by the Young Men's Survey conducted in six US cities in 1998-00. Prevalence ranged from a low of 5% in Seattle to a high of 18% in Dallas.

RISK BEHAVIORS IN YOUNG GAY MALES:

- Results from the Seattle-area Young Men's Survey in 1997-98 showed that of those MSM ages 15-18 who had had anal sex in the past six months, 53% had had sex without a condom compared to 64% of 19-22 year olds. Of those ages 23-29 years who had had anal sex in the past six months, 62% had had unprotected anal sex (with 42% "sometimes" and 20% "never" using a condom during sex).

OTHER RELEVANT INFORMATION FOR HIV PREVENTION:

- Diagnosis of a sexually transmitted infection indicates unsafe sexual behavior, and the presence of an STI increases the risk of acquiring HIV. Young people continue to have the highest rates of STIs. In King County, the 2002 gonorrhea rate was 324 per 100,000 among persons age 20-24 and 176 for persons age 30-34. Chlamydia rates in 2002 were 1223 per 100,000 for 15-19 year olds compared to 286 for 30-34 year olds.
- Results from risk behavior surveys provide important information about behaviors that may place young people at risk for HIV infection. The Seattle Public Schools 1999 Teen Health Risk Survey showed that 40% of high school students had had sex. Of those reporting sex in the previous three months, 61% had had sex without a condom at least once during that time.
- According to the Seattle Public Schools 1999 Teen Health Risk Survey, 1% of high school students said they were homosexual, 3% bisexual, 90% heterosexual, and 6% said they were unsure.



HIV Among Foreign-Born Residents of King County

Summary: Although the vast majority of HIV-infected residents of King County were born in the United States or territories, about 10% were born in other countries. Among Blacks, the distribution of infection by sex and mode of transmission are quite different for U.S.-born and foreign-born residents of King County. Finally, the proportion of new HIV diagnoses among foreign-born Blacks is increasing. Therefore, understanding the HIV epidemic among foreign-born Blacks is important for targeting prevention efforts among this community.

STATUS OF HIV CASES (Table 22):

- The proportion of HIV-infected King County residents who are foreign-born is higher among people of color. One-half of Asians (57%) and Hispanics (52%), and one-quarter of Blacks (23%) were born in countries other than the U.S. Among Whites with HIV, 2% are foreign-born.
- The proportion of HIV-infected females is higher among foreign-born. Whereas 8% of U.S. born HIV-infected persons are female, 21% of foreign-born residents are female. The rates are similar among Asian, Hispanic, and White foreign-born populations (average 14%), while the percentage of HIV-infected persons who are female is much higher among the foreign-born Black population (38%).

Table 22: Place of Birth and Sex by Race Among King County Residents Living with HIV/AIDS, 2002

	White	Black	Hispanic	Asian	Native American	Total
Total Number HIV+	3,732	770	412	108	84	5,115
Foreign-Born	2%	23%	52%	57%	1%	11%
U.S. Born	98%	77%	48%	43%	99%	89%
Female	5%	26%	10%	13%	25%	5%

- The mode of HIV exposure also differs substantially between the U.S. and foreign-born infected persons.
 - Among the U.S. born, over three-quarters of infections are among MSM (77%), followed by MSM/IDU (10%), IDU (8%), and heterosexual transmission (4%).
 - Among foreign-born King County residents with HIV, 51% are MSM, 5% are MSM/IDU, 5% are IDU, and 37% have heterosexually-acquired infections.
 - MSM or MSM/IDU account for the majority among foreign-born persons of each race, including 82% of Whites, 62% of Hispanics, and 63% of Asians but just 6% of Blacks.
 - Heterosexual transmission accounts for 57% of infection among foreign-born Blacks, but only 8% of Whites, 13% of Hispanics, and 11% of Asians were infected through heterosexual transmission.
- Blacks born outside the U.S. make up just 3% of the total HIV-infected population in King County, but 30% of all heterosexual-acquired infections.

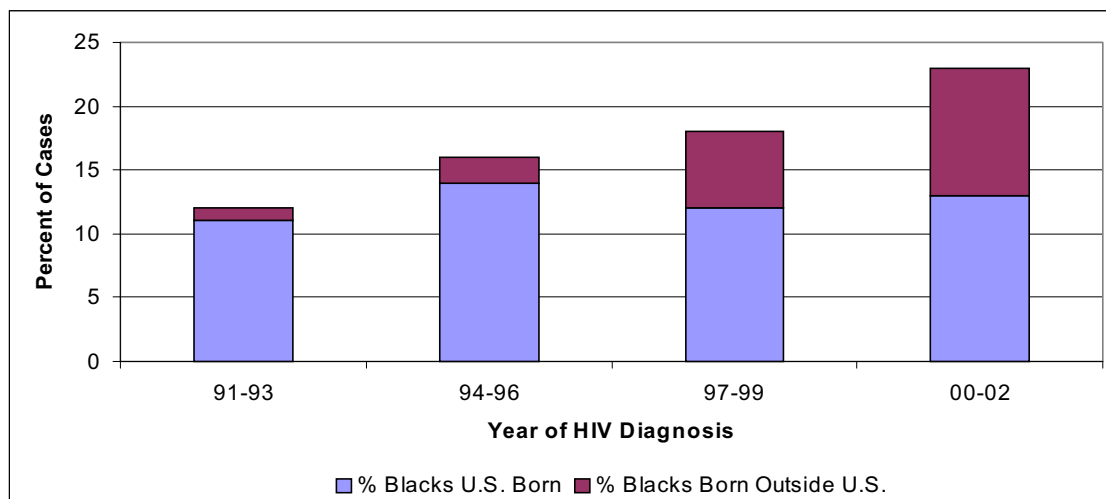
**Table 23: King County Residents Living with HIV Infection
12/31/2002, by Place of Birth**

	Blacks Born Outside U.S.	Blacks Born In U.S	All Others
Total	171	499	4,445
SEX			
Male	63%	77%	93%
Female	37%	23%	7%
MODE OF EXPOSURE			
Men who have sex with Men	6%	46%	75%
Injection Drug Use	1%	19%	6%
MSM and IDU	0%	6%	10%
Blood Exposure	1%	1%	1%
Heterosexual	57%	13%	4%
Born to HIV+ Mother	1%	2%	0%
Undetermined	34%	14%	5%

TRENDS IN HIV/AIDS CASES (Figure 20):

The proportion of HIV cases among blacks who are foreign-born has increased over the past several years, from 2% of all persons diagnosed 1994-96, to 9% of persons diagnosed 2000-02 (see figure below).

Figure 20: Percentage of Total HIV Diagnoses Among Blacks, by Place of Birth





Chapter V. Other Indicators of Behavioral Risks

Although diagnosis of HIV may occur years after infection with the virus, and reporting of HIV is still incomplete, HIV and AIDS case report data provide very accurate information on the epidemiology of HIV infection in King County. Additional data sources can contribute to a more complete picture of the current and potential impact of HIV in our region. These surrogate data include rates of other sexually transmitted infections (STI), teen pregnancy rates, and results from local behavioral risk studies.

Sexually transmitted infection rates: Diagnosis of a sexually transmitted infection indicates unsafe sexual behavior, and therefore, a greater risk of HIV infection. In addition, STIs increase the personal risk of acquiring and transmitting HIV infection. For example, syphilis infection may produce open genital sores, increasing vulnerability to direct HIV entry to the bloodstream. Co-infection with HIV and gonorrhea enhance HIV transmission to uninfected sexual partners by increasing HIV viral shedding and increasing the viral load in genital secretions. Although HIV is not transmitted as readily as certain other STIs and the risk of HIV infection depends on the HIV prevalence in the population, STI statistics provide useful information about the extent of risky sexual behaviors in specific geographical areas and populations. The STI data presented below are based on cases reported to Public Health – Seattle & King County.

Figure 21: Number of primary and secondary syphilis cases by gender, King County, 1988-2002

Figure 21 shows the number of reported cases of primary and secondary (P&S) syphilis in King County (KC) from 1988-2002. While P&S syphilis was almost completely eliminated in 1995-96, it has recently reappeared. Almost all new cases are among men, many who are MSM. The resurgence of syphilis is an area of immediate concern for HIV prevention efforts and reflects high-risk sexual behavior, especially among men who have sex with men. P&S syphilis counts among men in KC rose from zero cases in 1996 to 50 in 2002.



Figure 22: Three-year average annual rates of chlamydia and gonorrhea by age, King County, 1999-2001.

Figure 22 shows KC 1999-2001 average annual rate of gonorrhea and chlamydia by age. The majority of cases (58% of gonorrhea and 83% of chlamydia cases) were diagnosed in persons under 30 years. The highest rates of chlamydia are among persons aged 15-19 and 20-24 years, while the highest rates of gonorrhea are among persons age 20-24.

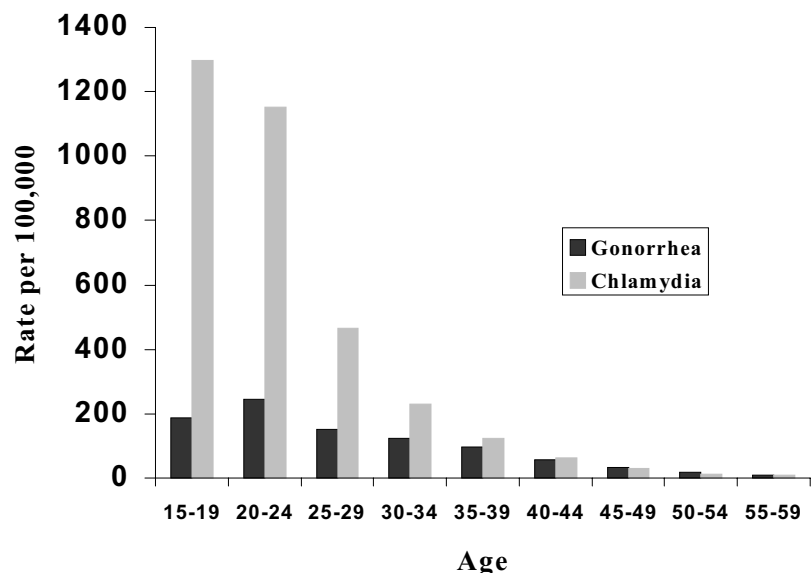


Table 24 compares 1999-2001 average annual gonorrhea and chlamydia rates in different geographic areas of KC. Because gonorrhea and chlamydia are most commonly diagnosed in persons younger than 30 years, only rates for 15-29 year olds are included. Gonorrhea rates particularly vary greatly across the county, while chlamydia is more evenly distributed. Gonorrhea rates are over twice as high in Seattle than in the remainder of KC. Within Seattle, the Central and Southeast areas have the highest rates. In areas outside Seattle, the highest rates are in White Center/Skyway and Highline/Burien.

Table 24: Average annual gonorrhea and chlamydia rates per 100,000 among persons age 15-29, by Health Planning Area, King County, 1999-2001.

Health Planning Area	Gonorrhea		Chlamydia	
	Rate per 100,000	95% Confidence interval	Rate per 100,000	95% Confidence interval
Central Seattle	507.6	447.3 - 573.9	1371.4	1271 - 1477.8
North Central Seattle	205.5	174.7 - 240.3	479.2	431.4 - 530.9
Seattle N of Canal Area	68.0	55.5 - 82.5	377.7	347.4 - 410
North Seattle	156.2	121.3 - 197.9	826.7	743.6 - 916.7
Southeast Seattle	602.9	541.3 - 669.7	2368.3	2244.5 - 2497.4
West Seattle	168.3	132 - 211.6	1090.7	994.7 - 1193.6
Subtotal Seattle	237.5	223.1 - 252.7	905.4	876.9 - 934.5
Auburn	95.6	72.4 - 123.7	831.7	760.2 - 908.2
Bellevue	47.7	30.3 - 71.5	393.9	339.9 - 454
Bothell/Woodinville	41.2	23.6 - 66.7	349.9	293.7 - 413.9
East/Northeast County	17.1	3.4 - 48.4	353.2	271 - 452.5
Eastgate/Issaquah	27.5	14.2 - 47.9	270.5	224 - 323.9
Federal Way	142.9	113.7 - 177.4	1099.9	1015.8 - 1189.2
Highline/Burien	206.2	169.7 - 248.3	1408.3	1309.9 - 1512.3
Kent	153.9	125 - 187.5	980.0	904.7 - 1060.1
Kirkland/Redmond	32.8	22.4 - 46.3	328.8	293.9 - 366.9
Mercer Island	24.4	2.8 - 83.8	317.1	207.4 - 464.6
North County	68.9	45.1 - 101	543.5	471.8 - 623.2
Renton	141.9	112.3 - 177.1	846.2	771.1 - 926.7
Southeast County	25.5	12.8 - 45.5	466.7	404.5 - 535.8
Vashon Island	*	*	327.5	169.5 - 570
White Center/Skyway	269.5	222.9 - 322.9	1782.6	1659.3 - 1912.8
Subtotal KC Outside Seattle	99.5	92.1 - 107.3	747.5	727 - 768.5
King County Total	165.1	157.6 - 173	868.9	851.5 - 886.6

* The number of cases is too small to calculate a meaningful rate

Table 25 shows gonorrhea rates per 100,000 among persons aged 15 to 29 years in KC between 1993 and 2000. Rates have generally declined in the past decade both in Seattle and other areas of the county among males and females and in all racial/ethnic categories. Discrepancies continue to persist with higher rates in Seattle compared with the rest of the county and among African Americans, Hispanics, and American Indians/Alaskan Natives compared to Whites and Asian/Pacific Islanders.

Table 25: Gonorrhea rates among persons aged 15-29 years, King County, 1993-2000.

	1993	1994	1995	1996	1997	1998	1999	2000
Male	276.4	228.8	227.6	168.7	131.4	176.6	165.7	165.3
Female	278.1	250.9	236.3	159.7	187.3	142.2	150.1	190.3
White	146.6	112.4	103.1	81.6	65.4	80.3	78.0	81.2
Black	2156.1	1975.0	1787.5	1192.4	1229.3	1003.6	984.2	1180.2
Am Indian/AK Native	360.4	408.9	400.3	237.6	165.2	240.6	157.0	153.6
Asian/Pacific Islander	71.8	42.3	68.7	43.9	53.2	44.6	40.7	40.6
Hispanic	369.7	161.9	194.5	100.7	105.7	190.7	117.3	136.8
Seattle	429.6	336.3	317.5	231.4	207.8	239.5	233.8	239.3
KC Outside Seattle	142.1	142.1	152.1	101.6	113.9	90.8	95.2	112.4
King County Total	277.2	239.7	231.9	164.3	158.8	159.8	158.0	177.6



Chlamydia rates among KC residents aged 15-29 years are presented in Table 17. Many chlamydia infections are asymptomatic and may only be diagnosed because infected persons are screened. Some of the differences in chlamydia reporting statistics may be due to differences in screening policies and programs. From 1993 through 1997 chlamydia rates generally decreased, but have increased to the highest levels in ten years by 2000.

As with gonorrhea, discrepancies persist with higher chlamydia rates in Seattle compared to the rest of the county, and in people of color compared to Whites and Asians. Females have higher rates than males, but this may be at least partially related to more routine screening of women.

Table 26: Chlamydia rates per 100,000 persons aged 15-29 years, King County, 1993-2000.

	1993	1994	1995	1996	1997	1998	1999	2000
Male	358.8	356.5	352.8	355.7	341.0	404.0	479.3	543.4
Female	1120.4	1272.4	1161.3	1097.6	1090.0	1139.1	1259.5	1434.1
White	518.7	524.0	461.9	406.5	373.9	402.0	477.2	491.5
Black	3266.9	3880.9	3525.5	3270.2	3466.0	3815.3	3705.1	4102.9
Am Indian/AK Native	1153.2	1280.0	818.0	1205.0	925.3	882.1	1208.9	1197.8
Asian/Pacific Islander	485.6	512.1	536.5	580.7	502.5	498.0	625.3	735.0
Hispanic	975.1	1162.6	1063.1	1024.1	1076.5	887.5	1097.0	1286.3
Seattle	853.9	978.0	904.6	839.2	792.0	827.4	915.1	972.1
KC Outside Seattle	563.1	595.0	565.7	530.7	550.0	649.6	743.8	848.9
King County Total	734.1	807.0	749.9	719.6	708.1	764.2	861.5	979.9

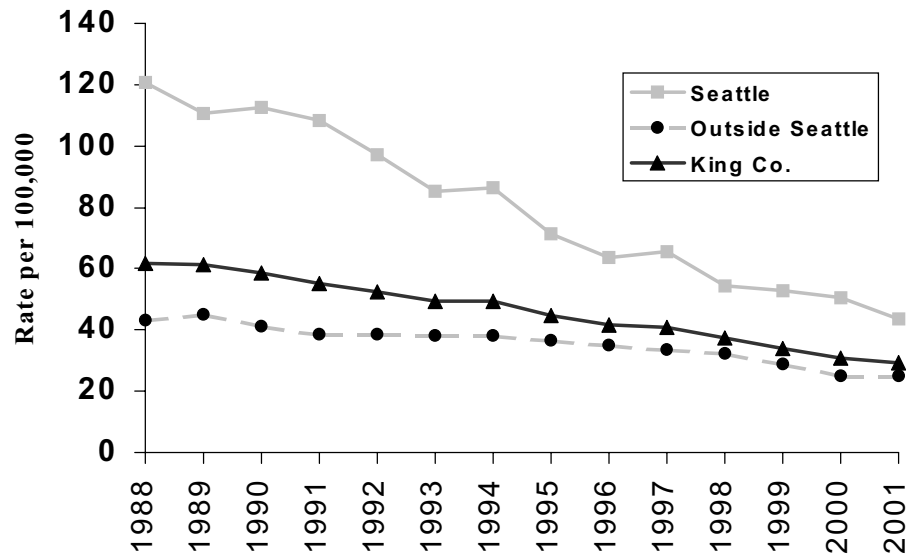
After declines since 1983, gonorrhea and chlamydia rates have increased substantially among MSM in KC in recent years. Gonorrhea rates in MSM in the STD Clinic at Harborview Medical Center doubled from 1997 to 1999, and chlamydia rates in MSM seen at the Clinic have more than tripled in the past five years.

Teenage pregnancy rates (Figure 23):

An important indicator of unprotected sex among adolescent females is the teenage pregnancy rate. Pregnancy rates are based on reported birth and abortion data and do not include miscarriages and fetal deaths (spontaneous abortions after 20 weeks). Local pregnancy rates among 15-17 year old females for 1988-2001 are shown in Figure 13. Pregnancy rates declined 64% in Seattle and 46% in other areas of King County between 1988 and 2001. A total of 1,180 or about 4% of 15-17 year old females became pregnant in 2001.

Data from local and nationwide surveys such as the Seattle Public Schools Teen Health Survey, the Youth Risk Behavior Survey, the National Survey of Adolescent Males, and the National Survey of Family Growth suggest that increased use of birth control and delayed sexual involvement both played a role in these local declines^{1,2}:

- The Seattle Public Schools 1999 Teen Health Survey indicated that from 1995 to 1999 there was a statistically significant reduction in the percentage of high school students reporting they had "ever" had sex².
- The percentage reporting that they had first had sex by age 13-14 also declined significantly².
- The percentage having four or more sexual partners in their lifetime also declined significantly².
- There was also evidence of increased condom use^{1,2}.

Figure 23: Pregnancy rates per 100,000 teens aged 15-17 years, King County, 1988-2001.**References**

(1) Darroch JE, Singh S. Why is Teenage Pregnancy Declining? The Roles of Abstinence Sexual Activity and Contraceptive Use. New York, NY: Alan Guttmacher Institute Occasional Report; 1999. Available at: http://www.guttmacher.org/pubs/or_teen_preg_decline.pdf

(2) Harachi TW, Anthony E, Bliesner S, Hilliard Pamela, Peterfreund N. Seattle Public Schools 1999 Teen Health Survey Results - Final Report. Seattle, WA. June, 2000.



Chapter VI. Appendix

Section A. Glossary

1987 AIDS case definition: The CDC surveillance definition for AIDS implemented in 1987 included 23 clinical AIDS indicator diseases (MMWR 1987 Vol. 36, No. 15). The 1987 case definition was based on the 1986 HIV Classification System and replaced the 1985 case definition.

1993 AIDS case definition: The 1993 CDC surveillance definition for AIDS in adult and adolescents was implemented January 1, 1993 (MMWR 1992 Vol. 41, No. RR-17). It adds to the 23 indicator conditions from the 1987 AIDS definition the following: 1) persons with HIV infection and CD4+ T-lymphocyte levels under 200 cells per microliter, or under 14 percent of total lymphocytes; 2) HIV-infected persons with pulmonary TB, recurrent pneumonia, or invasive cervical cancer. Other countries have not adopted the inclusion of severe immunosuppression as an AIDS-defining condition.

1993 HIV classification system: (MMWR 1992 Vol. 41, No. RR-17). This system classifies HIV according to clinical and immunosuppression stages as shown in the table below. In 1994, CDC published a revised pediatric HIV classification system for children under 13 years (MMWR 1994 Vol. 43, No. RR-12), which is also organized according to clinical and immunosuppression stages of HIV infection although the categorization of CD4 counts is different. AIDS and Symptomatic non-AIDS HIV-related conditions in children, adolescents, and adults have been reportable in Washington State since 1987 (WAC 246-100). CDC has also published a revised surveillance case definition for HIV (MMWR 1999 Vol. 48, No. RR-13).

**Table 27:
HIV Classification
System**

HIV Classification System	Laboratory Category CD4 Level			
	Clinical Category	> 500 or > 29%	200-499 or 14-29%	<200 or <14% Unknown
Asymptomatic HIV infection		A1	A2	A3 A9
Symptomatic HIV not AIDS		B1	B2	B3 B9
Clinical AIDS with disease		C1	C2	C3 C9
Unknown		X1	X2	X3 X9

AIDS: Acquired immunodeficiency syndrome, the end-stage of HIV infection.

AIDS case reporting delay: The time between diagnosis of an AIDS case and the receipt of the case report by the health department.

AIDS case reporting completeness: The proportion of all diagnosed AIDS cases which are reported to the health department after allowing for a certain reporting delay time.

CDC: Centers for Disease Control and Prevention, a federal agency headquartered in Atlanta. The Division of HIV/AIDS Prevention is part of the National Center for HIV, STD, and TB Prevention.

95% confidence intervals (CI): The 95% CI is used to illustrate the uncertainty of a point estimate such as a rate, and is defined as follows: the range of values within which, upon repeated measure, the rate can be expected to fall 95% of the time.

Cumulative cases: All cases occurring during an extended period of time. Example: The cumulative number of AIDS cases in King County from 1982 to the end of 2002 is 8,937.

HIV: Human immunodeficiency virus type 1; previously known as HTLV-III or LAV, the cause of AIDS.

Health planning area(s) (HPA): King County is divided into 20 health planning areas based on aggregations of census tract areas which were originally designed by the PH-SKC to correspond as closely as possible to neighborhoods, clinic utilization, travel patterns, and other factors of community interaction. Since census tract is not recorded for AIDS cases, zip code-defined HPAs are used for geographic analysis of AIDS data.

Incidence: The number of new cases within a given time period (usually one year). Example: The incidence of AIDS in King County in 2000 was 265 cases.

IDU: Injection drug user. For the purposes of defining HIV exposure, any injection drug use not prescribed by a medical professional since 1978 is included.

KC: King County.

PLWA: Persons currently living with AIDS.

PLWHA: Persons currently living with HIV or AIDS.

MSA: Metropolitan Statistical Area: the Seattle MSA includes King, Snohomish, and Island counties.

MSM: Men who have sex with other men, whether or not they self-identify as homosexual; includes both homosexual and bisexual men.

Median survival time: The interval between the diagnosis of a specific illness (i.e. AIDS) and the point in time at which 50% of persons with this condition have died; often expressed in months for AIDS.

NIR: No identified risk. These are persons with no reported history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories (e.g. in Table 4). NIR cases include persons whose risk is currently under investigation by local health department officials; persons whose exposure history is incomplete because they died, declined to be interviewed, or were lost to follow up; and persons who were interviewed or for whom other follow-up information was available and no exposure mode was identified. Persons who have an exposure mode identified at the time of follow-up are reclassified into the appropriate exposure category.

PH-SKC: Public Health – Seattle & King County

Prevalence: The number of existing cases in a population at a specific point in time. Example: The prevalence of HIV positive persons in King County in 2002 was 8,400.

Rate: A fixed ratio between two things; a quantity, amount, or degree of something measured per unit of something else, usually a period of time. Example: 55 miles per hour is a rate of speed; 55 cases per 100,000 population per year is an annual incidence rate.

Single-race bridged estimates: In 2000 the U.S. Census Bureau began collecting data on multiple race background. While 92% of Washington residents indicated they were a single race (White, Black, Asian, American Indian, or Native Hawaiian), the remainder indicated they were 'some other race' or 'two or more' of these races. In order to compare 2000 Census data with earlier years, the data indicating multiple race or other race were redistributed or 'bridged' into the older categories.

SI: Severe immunosuppression defined as a CD4+ T-lymphocyte level under 200 cells per microliter, or under 14 percent of total lymphocytes. Under the expanded 1993 CDC AIDS case definition, SI in the presence of HIV infection is an AIDS-defining condition.

STD: Sexually-transmitted disease. **STI** = Sexually-transmitted infection.

YPLL: Years of potential life lost before a certain age (often 65). This measure is useful to compare the societal impact of mortality due to different causes.



Section B. Data Sources

A summary of the main data sources used to develop the **2003 HIV/AIDS Epidemiology Profile for Community Planning** is presented below. Call the HIV/AIDS Epidemiology Program at (206) 296-4645 for additional information.

King County HIV/AIDS Case Registry (1982-ongoing)

This database includes demographic, geographic, exposure, diagnostic, and laboratory data for HIV and AIDS cases residing in King County at time of diagnosis. These data provide good population-based epidemiological information on AIDS in King County because AIDS case reporting is at least 90% complete. AIDS reporting is the only population-based source of HIV epidemiology data and is widely used for prevention and care services planning. Because standard medical therapy has increased the time between acquiring HIV infection and developing AIDS, AIDS data no longer accurately reflects the epidemiology of recently-infected populations. HIV infection reporting was implemented in Washington in 1999, and provides epidemiological data on the earlier stages of HIV. The completeness of HIV reporting may be 60% - 80% and does not include infected persons who are not yet diagnosed. HIV and AIDS reporting data include limited information that is readily available from medical records.

The Public Health – Seattle & King County (PH-SKC) HIV/AIDS Epidemiology Program collects and manages HIV/AIDS data in King County. With the assistance of local health departments, the Washington State Department of Health Infectious Disease and Reproductive Health Assessment Unit conducts surveillance in the rest of the state and manages the statewide case registry.

Summary King County HIV/AIDS statistics are published each month only on the PH-SKC web site, and more detailed statistics are printed every six months in the ***HIV/AIDS Epidemiology Report***. Both can be found at <http://www.metrokc.gov/health/apu/epi/index.htm>

Adult Spectrum of HIV-related Diseases Study (ASD) (1989-2004)

The Adult Spectrum of HIV-related Diseases (ASD) Study is an ongoing medical record review follow-up study of persons with HIV infection seen in outpatient settings. ASD is funded by the Center for Disease Control and Prevention (CDC) and Seattle-King County is one of ten current participating sites nationwide. Demographic, exposure, clinical, laboratory, treatment, and health utilization information is gathered semi-annually. These data are representative of people with HIV infection seeking care at a variety of outpatient facilities in King County. Updates from the ASD study are published in the *HIV/AIDS Epidemiology Report*. The PH-SKC HIV/AIDS Epidemiology Program manages this database.

Record-based HIV Prevalence Surveys

To monitor HIV seroprevalence in sentinel populations at higher risk of HIV infection, CDC funded surveys were conducted in selected clinics nationwide beginning in 1988. These surveys were ongoing, anonymous, record-based HIV prevalence surveys which collected HIV status, demographic, and certain behavioral characteristics of persons attending these clinics. Residual blood specimens drawn for clinical purposes were tested for HIV after patient identifiers were removed. These data provide good epidemiological information on persons attending the local clinics selected for the study, but cannot be generalized beyond the surveyed population. Updates from these studies were published in the *HIV/AIDS Epidemiology Report*. The PH-SKC HIV/AIDS Epidemiology Program manages most of these databases. The surveys included:

- **Drug Treatment Centers (1988-1999)**
- **STD Clinics (1988-1998)**
- **Adolescent survey (1993)**
- **Adolescent health clinic (1993-94)**
- **Survey of Childbearing Women (1989-1995).** Data from these statewide surveys are managed by WA Department of Health Infectious Disease and Reproductive Health Assessment Unit.

Military Recruit Data (1985-ongoing)

Aggregated statistical results from HIV screening of military recruit applicants are published annually by the CDC. Data include demographic (gender and race) and HIV prevalence information. Results for Washington State and the Seattle and Tacoma Metropolitan Statistical Areas are available from the PH-SKC HIV/AIDS Epidemiology Program and are published regularly in the *HIV/AIDS Epidemiology Report*.

Job Corps Data (1988-ongoing)

Aggregated statistical results from HIV screening of entrants to the job corps—a residential occupational training program for disadvantaged youth administered by the Department of Labor—are provided to state and local health departments by the CDC. Data include HIV prevalence and demographic information. Data for Washington State and the Seattle MSA are available from the PH-SKC HIV/AIDS Epidemiology Program and are published annually in the *HIV/AIDS Epidemiology Report*.

Demographic, Socioeconomic, and Geographic Population Data

Projected and adjusted demographic population data for King County and smaller geographical areas of King County are based on 2000 census data. Sociodemographic data (i.e. household income, unemployment, and education), income-related measures, and education measures are included. Population data are obtained from the US Census Bureau, and from the PH-SKC Epidemiology, Planning, and Evaluation (EPE) office. Population growth forecasts were obtained from the King County Office of Budget and Strategic Planning.

Mortality Statistics

Death certificate information includes causes of deaths occurring among King County residents. Persons with HIV or AIDS who live in King County at the time of death are included, while HIV and AIDS case counts are based on residence at the time of their diagnosis. These data are available to the PH-SKC HIV/AIDS Epidemiology Program through the VISTA database and data analysis system maintained by EPE. The mortality statistics are based on data collected by the PH-SKC's Office of Vital Statistics.

Seattle-King County Department of Public Health HIV Counseling and Testing Data (1987-ongoing)

This database includes HIV results, demographic data, and risk data for all publicly funded HIV counseling and testing sites. The PH-SKC HIV/AIDS Program collects additional data on clients tested at HAP and HAP outreach sites and publishes the results in *The Quarterly Data Report of the HIV/AIDS Program*.

Interview Studies

These studies recruit persons at risk for, or already diagnosed with, HIV infection. Various demographic and behavioral data are collected. Updates from these studies are published in the *HIV/AIDS Epidemiology Report* and in peer-reviewed journals.

Supplement to HIV/AIDS Surveillance (SHAS) is a CDC-funded multi-site project that has been conducted in Washington State since 1991. Data are collected via in-person interviews from persons from all over the state who have been reported with HIV or AIDS. These data include demographic and socioeconomic characteristics, drug-use and sexual behaviors, reproductive/ gynecological history, HIV testing and medical history, and health and social services. Data are managed by DOH.

HIV Testing Survey in Communities of Color and Central/Eastern Washington (2002-3). In this CDC-funded study, information is collected about HIV-related risk behaviors, testing behaviors, knowledge and attitudes from populations at high risk for HIV infection. In 2002, the study was conducted at gay bars, needle exchanges, and STD clinics in Tacoma, Yakima, and Benton counties. In 2003, the study is being conducted in Tacoma and Spokane.

HIV Testing Survey among Asians and Pacific Islanders (2002-3) was one of five alternative HITS projects conducted in the US. The study conducts interviews with Asian Pacific Islanders about their HIV testing experiences and attitudes about HIV.



HIV Testing Survey (2000). This study was conducted in Seattle among persons at risk for HIV infection at gay bars (MSM), needle exchange programs (IDU), or at the STD clinic (high risk heterosexuals). Information from this research was used to design additional surveys among specific populations.

Seattle Area MSM Study (SAMS, 2002-4). The SAMS study looks at HIV transmission among using Audio-Computer Assisted Self-Interview (ACASI) qualitative interviews and the efficacy of peer referral as a tool for identifying positive men who do not know that they are HIV positive. The study is collaborating closely with the PHSKCS HIV/AIDS and STD programs and One-on-One programs on recruitment for this study. The study will continue through September, 2004.

Kiwi (1998-2002). The KIWI study was an HIV incidence and prevalence survey funded by CDC to collect data on HIV, HCV and sexual and injection risk behaviors among 1811 injection drug users who were booked into the King County correctional facilities between August 1998 and December 2002 .

Interview Follow-up HIV Study of Injection Drug Users (RAVEN) (1994-1998). This study is funded by the National Institute for Drug Abuse and the CDC. Injection drug users in drug treatment programs and not in treatment programs are interviewed at baseline and one year later about sexual and drug use behaviors. HIV, hepatitis C, hepatitis B, HTLV I and II, herpes simplex virus type 2, and syphilis status are assessed at baseline and follow-up. This study provides information on the prevalence and incidence of HIV and other parenterally-transmitted pathogens among injection drug users both in and out of treatment and the relationship between past or newly acquired infection and sexual and drug use behaviors.

Seattle Teen Health Survey (1999)

This health behavior survey, which includes sexual behavior questions, is conducted biannually in Seattle schools and include students in grades 8 through 12. The 1999 survey included all high school students and a sample of 8th graders. Results from the 1999 survey were published in a report which is available from the Seattle School District's Health Curriculum Office.

Sexually Transmitted Disease Reporting Data

This database includes demographic, geographic and diagnosis data on persons with sexually transmitted diseases (STD) which are legally notifiable under state administrative code. Statistics are compiled by the PH-SKC STD Program. These data are available through the VISTA database and data analysis system developed by the PH-SKC EPE office.

Sexually Transmitted Disease Clinic Database

This database includes demographic, geographic, diagnosis and sexual orientation data for clients seen at the Seattle-King County Department of Public Health (PH-SKC) Sexually Transmitted Disease (STD) Clinic. The PH-SKC STD Clinic manages this database.

Teenage Pregnancy Data

Pregnancy data collected from birth certificates and provider reporting of induced abortions are compiled in this database. Spontaneous abortions and fetal deaths (miscarriages after 20 weeks) are not included. These data are managed through the VISTA data analysis system developed by the PH-SKC Epidemiology, Planning, and Evaluation Program (EPE). EPE published a summary of some of these data in the June 2003 *Adolescent Pregnancy, Birth, and Abortion, King County, 1980-2001*.

HIV Incidence Study (HIVIS, 1998-2004)

HIVIS uses a modified, less-sensitive EIA test to identify persons who have become HIV infected within the past six to twelve months. These results enable us to better estimate HIV incidence for planning purposes. Anonymous data are managed by PH-SKC. The HIV Incidence Survey beginning in 2004 will provide similar results for confidential specimens.

Section C. AIDSNET Regions and Counties

Washington State HIV¹ and AIDS cases diagnosed, known deaths, and cases presumed living, by county of residence² at diagnosis and AIDSNET region - Reported as of 12/31/02

	CASES DIAGNOSED		DEATHS		PRESUMED LIVING	
	No.	(%)	No.	(%)	No.	(%)
Region 1:						
Adams	5	(0.0%)	1	(0.0%)	4	(0.1%)
Asotin	17	(0.1%)	6	(0.1%)	11	(0.1%)
Columbia	4	(0.0%)	3	(0.1%)	1	(0.0%)
Ferry	7	(0.1%)	6	(0.1%)	1	(0.0%)
Garfield	0	(0.0%)	0	(0.0%)	0	(0.0%)
Lincoln	3	(0.0%)	2	(0.0%)	1	(0.0%)
Okanogan	28	(0.2%)	7	(0.1%)	21	(0.3%)
Pend Oreille	9	(0.1%)	5	(0.1%)	4	(0.1%)
Spokane	545	(4.0%)	243	(4.2%)	302	(3.8%)
Stevens	22	(0.2%)	7	(0.1%)	15	(0.2%)
Walla Walla	64	(0.5%)	29	(0.5%)	35	(0.4%)
Whitman	12	(0.1%)	4	(0.1%)	8	(0.1%)
SUBTOTAL	716	(5.2%)	313	(5.4%)	403	(5.1%)
Region 2:						
Benton	95	(0.7%)	32	(0.6%)	63	(0.8%)
Chelan	42	(0.3%)	20	(0.3%)	22	(0.3%)
Douglas	4	(0.0%)	2	(0.0%)	2	(0.0%)
Franklin	52	(0.4%)	12	(0.2%)	40	(0.5%)
Grant	35	(0.3%)	20	(0.3%)	15	(0.2%)
Kittitas	16	(0.1%)	9	(0.2%)	7	(0.1%)
Klickitat	14	(0.1%)	8	(0.1%)	6	(0.1%)
Yakima	188	(1.4%)	74	(1.3%)	114	(1.4%)
SUBTOTAL	446	(3.2%)	177	(3.1%)	269	(3.4%)
Region 3:						
Island	68	(0.5%)	33	(0.6%)	35	(0.4%)
San Juan	23	(0.2%)	10	(0.2%)	13	(0.2%)
Skagit	68	(0.5%)	28	(0.5%)	40	(0.5%)
Snohomish	727	(5.3%)	289	(5.0%)	438	(5.5%)
Whatcom	184	(1.3%)	75	(1.3%)	109	(1.4%)
SUBTOTAL	1,070	(7.8%)	435	(7.5%)	635	(8.0%)
Region 4:						
King	8,936	(64.9%)	3,821	(65.9%)	5,115	(64.1%)
Region 5:						
Kitsap	249	(1.8%)	102	(1.8%)	147	(1.8%)
Pierce	1,242	(9.0%)	516	(8.9%)	726	(9.1%)
SUBTOTAL	1,491	(10.8%)	618	(10.7%)	873	(10.9%)
Region 6:						
Clallam	63	(0.5%)	27	(0.5%)	36	(0.5%)
Clark	483	(3.5%)	193	(3.3%)	290	(3.6%)
Cowlitz	112	(0.8%)	49	(0.8%)	63	(0.8%)
Grays Harbor	59	(0.4%)	24	(0.4%)	35	(0.4%)
Jefferson	32	(0.2%)	14	(0.2%)	18	(0.2%)
Lewis	44	(0.3%)	25	(0.4%)	19	(0.2%)
Mason	83	(0.6%)	17	(0.3%)	66	(0.8%)
Pacific	19	(0.1%)	8	(0.1%)	11	(0.1%)
Skamania	7	(0.1%)	5	(0.1%)	2	(0.0%)
Thurston	213	(1.5%)	74	(1.3%)	139	(1.7%)
Wahkiakum	3	(0.0%)	0	(0.0%)	3	(0.0%)
SUBTOTAL	1,118	(8.1%)	436	(7.5%)	682	(8.5%)
TOTAL	13,777	(100.0%)	5,800	(100.0%)	7,977	(100.0%)

¹Does not include those who have only been tested anonymously for HIV.

²County of residence at the time of testing positive for HIV or at the time of AIDS diagnosis. May not reflect where people are currently residing.



Section D. HIV/AIDS Epidemiology Information Resources

Public Health – Seattle & King County HIV/AIDS Epidemiology Program: (206) 296-4645
<http://www.metrokc.gov/health/apu/epi/index.htm>

Public Health – Seattle & King County AIDS Prevention Project hotline: (206) 205-7837

Public Health – Seattle & King County Web homepage: <http://www.metrokc.gov/health>

Washington State Department of Health AIDS Hotline: 1-800-272-AIDS (2437)

CDC National AIDS hotline:

1-800-342-AIDS (2437)
1-800-344-SIDA (7432) (Spanish)
1-800-243-7889 (Deaf access)

CDC National AIDS Clearinghouse 1-800-458-5231 or 1-301-217-0023

CDC HIV/AIDS Web homepage: <http://www.cdc.gov/hiv/dhap.htm>

CDC HIV/AIDS Surveillance Reports: <http://www.cdc.gov/hiv/stats/hasrlink.HTM>

UNAIDS, the Joint United Nations Programme on HIV/AIDS: <http://www.unaids.org/en/default.asp>

World Health Organization (WHO) AIDS hotline: 1-202-861-4346