



Geographic Distribution of HIV/AIDS across King County

SUMMARY: HIV and AIDS cases, like other sexually-transmitted diseases, are concentrated in urban areas. Both the number and the rate of persons diagnosed with HIV infection for the City of Seattle exceeds that from the rest of King County. HIV rates also vary markedly by geographic region within Seattle. Residence at HIV diagnoses has shifted toward persons residing south and west of Seattle, from 10% of new HIV diagnoses in 1996-98, to 14% in 2002-04. Throughout King County, 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:

- Of the 5,699 King County residents reported living with HIV or AIDS through 9/30/2005, 85% were Seattle residents, 8% reside south or west of the city, and 7% reside north or east of Seattle.
- Among all HIV cases, 73% of Seattle cases were attributed to male-to-male sex (MSM), compared to 59% of cases in those living outside of Seattle (see table below).
- Persons residing outside of Seattle when they were diagnosed were more likely to be female (17% vs. 8%), non-White (35% vs. 28%), foreign-born (17% vs. 10%), or to have had a heterosexual partner who is HIV-infected, IDU, or MSM (14% vs. 5%).

King County Residents Living with HIV or AIDS reported through 9/30/2005

Residence at time of AIDS diagnosis:	Seattle N=4,384		Outside of Seattle N=1,315	
	No.	(%)	No.	(%)
Sex				
Male	4,053	(92)	1,098	(84)
Female	331	(8)	217	(17)
Race/Ethnicity				
White	3,174	(72)	854	(65)
Black	618	(14)	281	(21)
Hispanic	383	(9)	124	(9)
Asian/Pacific Islander	105	(2)	33	(3)
Native American or Alaska Native	74	(2)	9	(1)
Multiple or unknown Race	30	(1)	14	(1)
Exposure Category				
Male/male sex (MSM)	3,215	(73)	778	(59)
Injection drug use (IDU)	256	(6)	91	(7)
MSM/IDU	414	(9)	77	(6)
Heterosexual sex	239	(5)	188	(14)
Blood products or perinatal	31	(1)	26	(2)
Total with Known Risk	4,155		1,160	
<i>Undetermined or other</i>	229	(5)	155	(12)
Birthplace				
United States or territories	3,736	(85)	1,024	(78)
Outside the U.S. and territories	453	(10)	227	(17)
Unknown birthplace	195	(4)	64	(5)

HIV RATES BY KING COUNTY HEALTH PLANNING AREAS

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 at the time of diagnosis, while only about 30% of the population resides in the County.

We calculated the rates of persons reported living with HIV/AIDS through September 30, 2005 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.

2003 population estimates for the twenty-five Health Planning Areas (HPA) were provided by the PH-SKC Epidemiology, Planning, and Evaluation Unit. These HPAs are based on aggregated census tract data and were designed to correspond with neighborhoods, utilization of clinics, travel patterns, and other community factors. However these do not match zip code boundaries precisely.

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 neighborhoods, 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 September 30, 2005, the percent of the total, and the rate per 100,000 population.

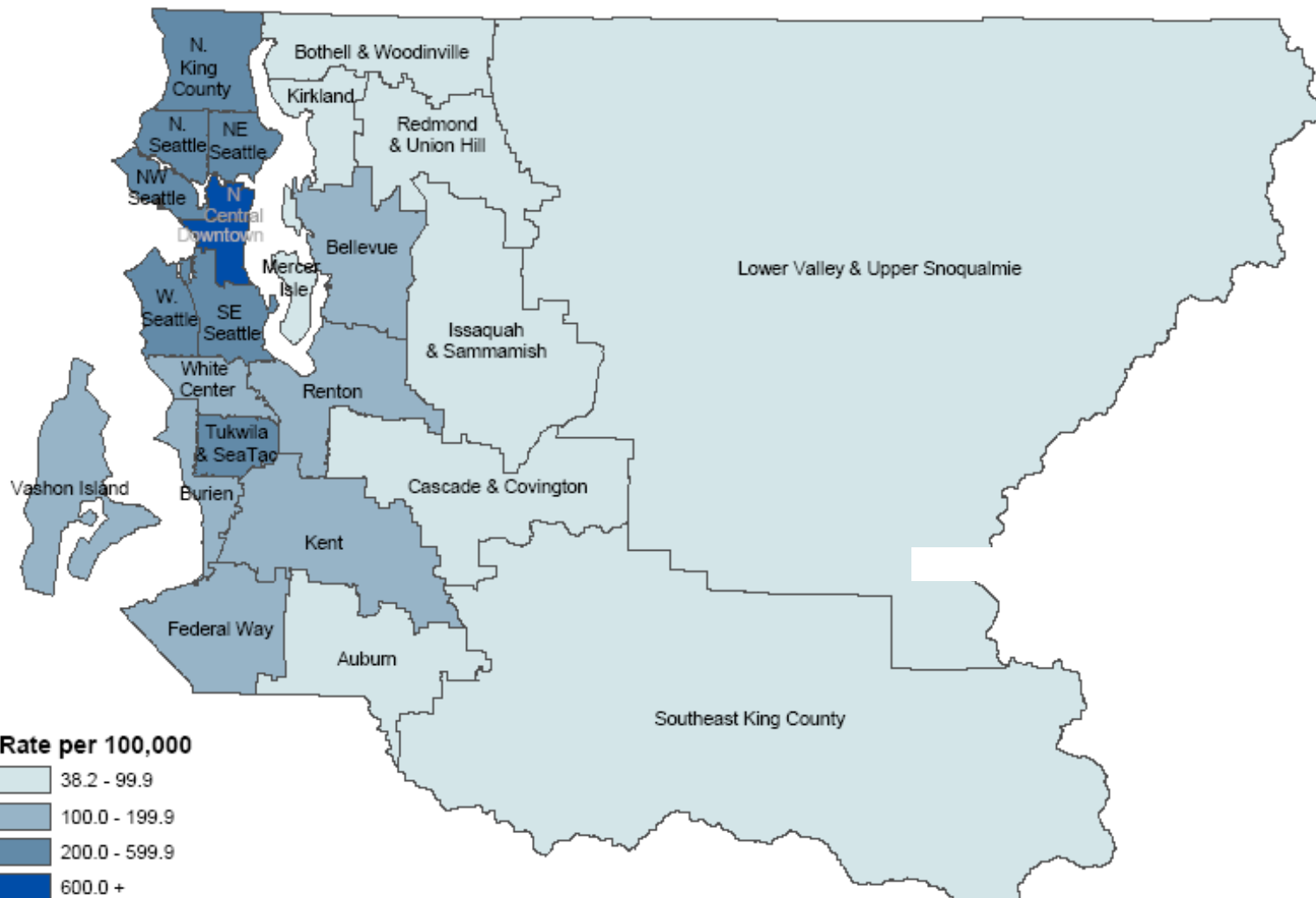
The map displays these rates geographically. The rate for the city of Seattle (810 per 100,000 persons) is seven times higher than the King County rate outside of Seattle (113). Within Seattle, the rate for Central Seattle (2028) is almost ten times higher than for Northeast Seattle (211). Outside the city, the rate for the Tukwila / SeaTac area (329) is nine times higher than for Issaquah / Sammamish (38). These prevalence rates are expected to increase annually, because there are an estimated 350-400 people diagnosed annually with HIV infection each year in King County, with only about 100 deaths.

Geographic Areas, Zip Codes, Populations, HIV Cases, and Rates

Geographical Area ¹	Included zip codes	2003 Estimate ²	Living with HIV or AIDS	Percent of total	Rate per 100,000
All King County		1,779,300	5,699	100%	320.3
Seattle		541,187	4,384	77%	810.1
King County East of Seattle		361,908	333	6%	92.0
King County North of Seattle		165,135	120	2%	72.7
King County South of Seattle		632,546	862	15%	136.3
<i>(subtotal King County outside Seattle)</i>		<i>1,159,589</i>	<i>1,315</i>	<i>23%</i>	<i>113.4</i>
North Seattle / N King County	98043, 98125, 98133, 98155, 98177	133,400	287	5%	215.1
<i>North Seattle only</i>			235	4%	
<i>N King County (Shoreline, Lk Forest)</i>			52	1%	
N Seattle (Ballard, Fremont, Greenlake)	98103, 98107, 98117	91,330	303	5%	331.8
N Central Seattle (Capitol Hill, Eastlake)	98102, 98112	41,076	833	15%	2027.9
N East Seattle (University, Wedgewood)	98105, 98115, 98195	84,744	179	3%	211.2
N West Seattle (Queen Anne, Magnolia)	98109, 98119, 98199	55,771	299	5%	536.1
Central Seattle / Downtown	98101, 98104, 98121, 98122, 98164	86,756	1,625	29%	1873.1
West Seattle	98106, 98116, 98126, 98136	78,717	292	5%	370.9
SE Seattle (Beacon Hill, Georgetown)	98108, 98118, 98134, 98144	66,775	282	5%	422.3
Seattle unknown location		N/A	252	4%	N/A
Seattle Homeless		N/A	84	1%	N/A
Auburn	98002, 98003, 98047, 98092	62,590	50	1%	79.9
Bellevue	98004, 98005, 98006, 98007, 98008, 98039	124,260	153	3%	123.1
Bothell / Woodinville	98011, 98021, 98028, 98072	82,108	68	1%	82.8
Burien / Highline	98166, 98198	56,344	76	1%	134.9
Cascade / Covington	98038, 98058	61,590	34	1%	55.2
Federal Way	98001, 98023	119,091	131	2%	110.0
Issaquah / Sammamish	98027, 98029, 98075	73,239	28	0%	38.2
Kent	98030, 98031, 98032, 98042	133,415	159	3%	119.2
Kirkland	98033, 98034	71,693	60	1%	83.7
Lower Valley / Snoqualmie	98014, 98019, 98024, 98045, 98051, 98065	38,425	27	0%	70.3
Mercer Island	98040	25,483	10	0%	39.2
Redmond / Union Hill	98052, 98053	62,944	55	1%	87.4
Renton	98055, 98056, 98059, 98178	101,700	164	3%	161.3
Southeast King County	98010, 98022	29,439	14	0%	47.6
Tukwila / SeaTac	98148, 98188	30,112	99	2%	328.8
Vashon Island	98070	10,224	14	0%	136.9
White Center / Skyway	98146, 98168	78,717	121	2%	153.7

Health Planning Areas (HPAs) were assigned by mapping city and neighborhood areas by zip codes as closely as possible, however, the boundaries may not conform exactly. Therefore, the populations for HPAs do not add up to the county total. In addition, the areas covered by certain zip codes have changed over time.

Figure 1: King County residents living with HIV/AIDS 9/30/2005, by Health Planning Area



Data Source: Population Estimates for Public Health Assessment, Washington State Department of Health, Vista Partnership, and Kroppski Consulting. October 2004.
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