hiv/aids

1st Half '01

epidemiology report

Washington State ❍ Seattle & King County

Washington State/Seattle-King County HIV/AIDS Epidemiology Report

Summary Tables

HIV/AIDS Epidemiology and Surveillance News

Credits

This is the fifty-eighth edition of a report on the epidemiology of HIV and AIDS. Produced as a joint project by Public Health-Seattle & King County and the Washington State Infectious Disease and Reproductive Health Assessment Unit, it is funded in part by a Centers for Disease Control and Prevention cooperative agreement for HIV/AIDS surveillance. We wish to thank the health care providers caring for people with HIV/AIDS and the clinics and patients participating in epidemiologic studies. Their cooperation with the public health departments' HIV/AIDS control efforts provides the basis for the data presented in this report. We also wish to acknowledge the outstanding assistance of our staff including Stephen Hitchcock, Beth Sohlberg, Linda Oakley Rusty Myers, Jay Wong and Nicole Clark at Public Health-Seattle & King County, and Mark Charonis, Sandy Hitchcock, Anna Meddaugh and Laraine Shann at the Washington State Infectious Disease and Reproductive Health Assessment Unit. Cover and document design by Stephen Hitchcock BA, BFA. Printed on recycled paper.

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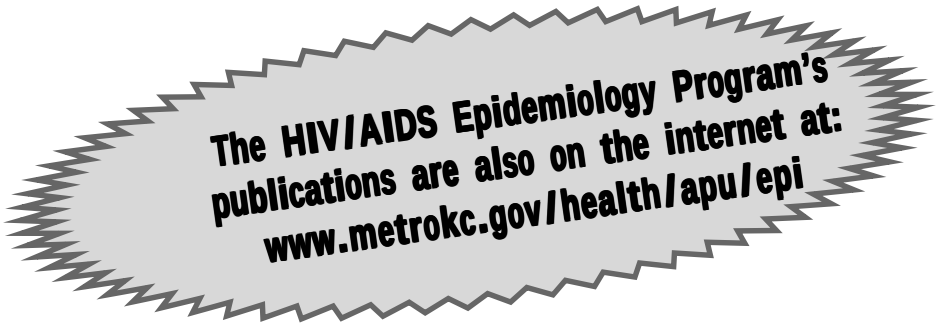
HIV/AIDS Reporting Requirements

Washington State implemented HIV infection reporting on September 1, 1999. Health care providers are required to report all HIV infections, regardless of the date of the patient's initial diagnosis to the local health department. However, the requirement is limited to those patients who seek HIV care or are tested on or after September 1, 1999. Local health department officials will forward case reports to the State Department of Health, replacing the name of the patient with a standard code prior to forwarding if the report indicates asymptomatic infection. As has been the case since 1984, AIDS and symptomatic HIV case reports are not subject to coding.

Laboratory evidence of HIV infection (i.e., western blot assays, p24 antigen detection, viral culture, nucleic acid detection [viral load]) also became reportable by laboratories effective September 1, 1999. Low CD4 counts (<200/µl or <14% of total lymphocytes) already have been reportable since 1993. However, laboratory reporting does not relieve health care providers of their duty to report since most of the critical information necessary for surveillance and follow-up is not available for reporting by laboratories.

For further information about HIV/AIDS reporting requirements, please call your local health department or the Washington Department of Health at 1-888-367-5555. In King County contact the HIV/AIDS Epidemiology Program at 206-296-4645.



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We provide alternative formats for printed material upon request.

Table 1. Surveillance summary of reported AIDS[1] cases, deaths, and persons living with AIDS - King County, other WA counties, all WA State, U.S.

		ADULT/ ADOLESCENT	PEDIATRIC[2]	TOTAL
KING COUNTY	*Cases reported as of 6/30/01*			
	New cases reported 1st half 2001	183	0	183
	Cases reported year-to-date	183	0	183
	Cumulative cases	6,256	14	6,270
	Cumulative deaths	3,619	8	3,627
	Persons living[3]	2,637	6	2,643
OTHER COUNTIES	*Cases reported as of 6/30/01*			
	New cases reported 1st half 2001	97	0	97
	Cases reported year-to-date	97	0	97
	Cumulative cases	3,401	18	3,419
	Cumulative deaths	1,802	11	1,813
	Persons living[3]	1,599	7	1,606
WA STATE	*Cases reported as of 6/30/01*			
	New cases reported 1st half 2001	280	0	280
	Cases reported year-to-date	280	0	280
	Cumulative cases	9,657	32	9,689
	Cumulative deaths	5,421	19	5,440
	Persons living[3]	4,236	13	4,249
U.S.	*Cases reported as of 12/31/00*			
	Cumulative cases	765,559	8,908	774,467
	Cumulative deaths	442,882	5,178	448,060
	Persons living[3]	322,677	3,730	326,407

[1]AIDS by 1993 surveillance case definition
[2]Age < 13 years at time of AIDS diagnosis
[3]Persons reported with AIDS and not known to have died
[4]Most recent date that complete U.S. statistics are available

Table 2. Cumulative AIDS case counts and deaths by resident county and AIDSNet region at diagnosis - Reported as of 6/30/01 - WA State

		TOTAL CASES		DEATHS		PRESUMED LIVING	
		No.	(%)[1]	No.	(%)[2]	No.	(%)[2]
Region 1:	Adams	3	(0.0)	1	(33)	2	(67)
	Asotin	13	(0.1)	6	(46)	7	(54)
	Columbia	3	(0.0)	2	(67)	1	(33)
	Ferry	6	(0.1)	6	(100)	0	(0)
	Garfield	0	(0.0)	0	(0)	0	(0)
	Lincoln	3	(0.0)	2	(67)	1	(33)
	Okanogan	19	(0.2)	6	(32)	13	(68)
	Pend Oreille	8	(0.1)	5	(63)	3	(38)
	Spokane	395	(4.1)	219	(55)	176	(45)
	Stevens	18	(0.2)	6	(33)	12	(67)
	Walla Walla	53	(0.5)	27	(51)	26	(49)
	Whitman	9	(0.1)	4	(44)	5	(56)
	SUBTOTAL	**530**	**(5.5)**	**284**	**(54)**	**246**	**(46)**
Region 2:	Benton	68	(0.7)	28	(41)	40	(59)
	Chelan	31	(0.3)	19	(61)	12	(39)
	Douglas	2	(0.0)	2	(100)	0	(0)
	Franklin	26	(0.3)	10	(38)	16	(62)
	Grant	26	(0.3)	19	(73)	7	(27)
	Kittitas	13	(0.1)	8	(62)	5	(38)
	Yakima	132	(1.4)	68	(52)	64	(48)
	SUBTOTAL	**298**	**(3.1)**	**154**	**(52)**	**144**	**(48)**
Region 3:	Island	52	(0.5)	33	(63)	19	(37)
	San Juan	17	(0.2)	10	(59)	7	(41)
	Skagit	46	(0.5)	27	(59)	19	(41)
	Snohomish	500	(5.2)	266	(53)	234	(47)
	Whatcom	137	(1.4)	70	(51)	67	(49)
	SUBTOTAL	**752**	**(7.8)**	**406**	**(54)**	**346**	**(46)**
Region 4:	King	6,270	(64.7)	3,627	(58)	2,643	(42)
Region 5:	Kitsap	171	(1.8)	97	(57)	74	(43)
	Pierce	868	(9.0)	462	(53)	406	(47)
	SUBTOTAL	**1,039**	**(10.7)**	**559**	**(54)**	**480**	**(46)**
Region 6:	Clallam	45	(0.5)	21	(47)	24	(53)
	Clark	338	(3.5)	184	(54)	154	(46)
	Cowlitz	81	(0.8)	44	(54)	37	(46)
	Grays Harbor	43	(0.4)	21	(49)	22	(51)
	Jefferson	23	(0.2)	11	(48)	12	(52)
	Klickitat	10	(0.1)	8	(80)	2	(20)
	Lewis	36	(0.4)	23	(64)	13	(36)
	Mason	62	(0.6)	16	(26)	46	(74)
	Pacific	13	(0.1)	8	(62)	5	(38)
	Skamania	7	(0.1)	5	(71)	2	(29)
	Thurston	140	(1.4)	69	(49)	71	(51)
	Wahkiakum	2	(0.0)	0	(0)	2	(100)
	SUBTOTAL	**800**	**(8.3)**	**410**	**(51)**	**390**	**(49)**
TOTAL		**9,689**	**(100.0)**	**5,440**	**(56)**	**4,249**	**(44)**

[1] Percent of Washington State cases (column %)
[2] Percent of individual county's cases (row %)

Table 3. Demographic characteristics of cumulative reported AIDS[1] cases - King County, other WA counties, all WA State, U.S.

	KING COUNTY		OTHER COUNTIES		ALL WA STATE		TOTAL U.S.	
Cases reported as of:	6/30/01		6/30/01		6/30/01		12/31/00[2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
SEX								
Male	5,952	(95)	2,992	(88)	8,944	(92)	640,022	(83)
Female	318	(5)	427	(12)	745	(8)	134,441	(17)
Unknown	0	(0)	0	(0)	0	(0)	4	(<1)
AGE GROUP (YRS)								
< 13	14	(<1)	18	(1)	32	(<1)	8,908	(1)
13-19	13	(<1)	26	(1)	39	(<1)	4,061	(1)
20-29	1,053	(17)	667	(20)	1,720	(18)	128,726	(17)
30-39	3,043	(49)	1,484	(43)	4,527	(47)	345,822	(45)
40-49	1,592	(25)	840	(25)	2,432	(25)	202,901	(26)
50-59	447	(7)	265	(8)	712	(7)	61,310	(8)
> 59	108	(2)	119	(3)	227	(2)	22,734	(3)
Unknown	0	(0)	0	(0)	0	(0)	5	(<1)
RACE/ETHNICITY								
White, not Hispanic	4,999	(80)	2,727	(80)	7,726	(80)	331,160	(43)
Black, not Hispanic	674	(11)	306	(9)	980	(10)	292,522	(38)
Hispanic	384	(6)	262	(8)	646	(7)	141,694	(18)
Asian/Pacific Islander	120	(2)	48	(1)	168	(2)	5,728	(1)
American Indian/AK Native	93	(1)	76	(2)	169	(2)	2,337	(<1)
Unknown	0	(0)	0	(0)	0	(0)	1,025	(<1)
HIV EXPOSURE CATEGORY								
Male-male sex	4,719	(75)	1,896	(55)	6,615	(68)	355,409	(46)
Injection drug use (IDU)	358	(6)	510	(15)	868	(9)	193,527	(25)
IDU & male-male sex	633	(10)	326	(10)	959	(10)	48,989	(6)
Heterosexual contact	229	(4)	308	(9)	537	(6)	81,981	(11)
Hemophilia	31	(<1)	57	(2)	88	(1)	5,427	(1)
Transfusion/transplant	54	(1)	67	(2)	121	(1)	9,159	(1)
Mother at risk/has HIV	13	(<1)	15	(<1)	28	(<1)	8,133	(1)
Undetermined/other[3]	233	(4)	240	(7)	473	(5)	71,842	(9)
TOTAL CASES	**6,270**		**3,419**		**9,689**		**774,467**	

[1] AIDS by 1993 surveillance case definition
[2] Most recent date that complete U.S. statistics are available
[3] Includes patients for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), patients still under investigation, patients whose only risk was heterosexual contact where the risk of the sexual partner was undetermined, persons exposed to HIV through their occupation, and patients whose mode of exposure remains undetermined

Table 4A. Cumulative AIDS[1] cases by gender, race/ethnicity, and HIV exposure category - Reported as of 6/30/01 - King County

EXPOSURE CATEGORY	WHITE[2] No.	(%)	BLACK[2] No.	(%)	HISPANIC No.	(%)	ASIAN/PI[3] No.	(%)	AI/AN[4] No.	(%)	TOTAL No.	(%)
MALE												
Male-male sex	3,990	(83)	329	(58)	266	(73)	90	(81)	44	(57)	4,719	(79)
Injection drug use (IDU)	142	(3)	81	(14)	35	(10)	3	(3)	7	(9)	268	(5)
IDU & male-male sex	521	(11)	58	(10)	29	(8)	5	(5)	20	(26)	633	(11)
Heterosexual contact	28	(1)	36	(6)	10	(3)	1	(1)	2	(3)	77	(1)
Hemophilia	29	(1)	1	(<1)	0	(0)	1	(1)	0	(0)	31	(1)
Transfusion/transplant	27	(1)	2	(<1)	3	(1)	1	(1)	1	(1)	34	(1)
Mother at risk/has HIV	2	(<1)	3	(1)	0	(0)	0	(0)	0	(0)	5	(<1)
Undetermined/other	90	(2)	59	(10)	23	(6)	10	(9)	3	(4)	185	(3)
MALE SUBTOTAL (row %)	**4,829**	**(81)**	**569**	**(10)**	**366**	**(6)**	**111**	**(2)**	**77**	**(1)**	**5,952**	**(100)**
FEMALE												
Injection drug use (IDU)	46	(27)	33	(31)	1	(6)	0	(0)	10	(63)	90	(28)
Heterosexual contact	87	(51)	46	(44)	12	(67)	3	(33)	4	(25)	152	(48)
Hemophilia	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
Transfusion/transplant	13	(8)	5	(5)	1	(6)	1	(11)	0	(0)	20	(6)
Mother at risk/has HIV	3	(2)	3	(3)	2	(11)	0	(0)	0	(0)	8	(3)
Undetermined/other	21	(12)	18	(17)	2	(11)	5	(56)	2	(13)	48	(15)
FEMALE SUBTOTAL (row %)	**170**	**(53)**	**105**	**(33)**	**18**	**(6)**	**9**	**(3)**	**16**	**(5)**	**318**	**(100)**
TOTAL	**4,999**	**(80)**	**674**	**(11)**	**384**	**(6)**	**120**	**(2)**	**93**	**(1)**	**6,270**	**(100)**

Table 4B. Cumulative AIDS[1] cases by gender, race/ethnicity, and HIV exposure category - Reported as of 6/30/01 - WA State

EXPOSURE CATEGORY	WHITE[2] No.	(%)	BLACK[2] No.	(%)	HISPANIC No.	(%)	ASIAN/PI[3] No.	(%)	AI/AN[4] No.	(%)	TOTAL No.	(%)
MALE												
Male-male sex	5,626	(77)	438	(55)	367	(63)	114	(79)	70	(51)	6,615	(74)
Injection drug use (IDU)	405	(6)	136	(17)	76	(13)	5	(3)	22	(16)	644	(7)
IDU & male-male sex	794	(11)	79	(10)	48	(8)	5	(3)	33	(24)	959	(11)
Heterosexual contact	91	(1)	56	(7)	29	(5)	5	(3)	5	(4)	186	(2)
Hemophilia	82	(1)	1	(<1)	1	(<1)	1	(1)	0	(0)	85	(1)
Transfusion/transplant	62	(1)	3	(<1)	7	(1)	1	(1)	1	(1)	74	(1)
Mother at risk/has HIV	5	(<1)	5	(1)	0	(0)	0	(0)	1	(1)	11	(<1)
Undetermined/other	213	(3)	81	(10)	56	(10)	14	(10)	6	(4)	370	(4)
MALE SUBTOTAL (row %)	**7,278**	**(81)**	**799**	**(9)**	**584**	**(7)**	**145**	**(2)**	**138**	**(2)**	**8,944**	**(100)**
FEMALE												
Injection drug use (IDU)	134	(30)	62	(34)	7	(11)	2	(9)	19	(61)	224	(30)
Heterosexual contact	222	(50)	76	(42)	39	(63)	8	(35)	6	(19)	351	(47)
Hemophilia	3	(1)	0	(0)	0	(0)	0	(0)	0	(0)	3	(<1)
Transfusion/transplant	31	(7)	8	(4)	3	(5)	3	(13)	2	(6)	47	(6)
Mother at risk/has HIV	7	(2)	5	(3)	4	(6)	1	(4)	0	(0)	17	(2)
Undetermined/other	51	(11)	30	(17)	9	(15)	9	(39)	4	(13)	103	(14)
FEMALE SUBTOTAL (row %)	**448**	**(60)**	**181**	**(24)**	**62**	**(8)**	**23**	**(3)**	**31**	**(4)**	**745**	**(100)**
TOTAL	**7,726**	**(80)**	**980**	**(10)**	**646**	**(7)**	**168**	**(2)**	**169**	**(2)**	**9,689**	**(100)**

[1]AIDS by 1993 surveillance case definition
[2]And not Hispanic
[3]Asian/Pacific Islander
[4]American Indian/Alaska Native

Table 5. Cumulative AIDS[1] cases by gender and age at diagnosis Reported as of 6/30/01 - King County and WA State

	KING COUNTY				WASHINGTON STATE			
	MALE		FEMALE		MALE		FEMALE	
AGE (YRS)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
< 5	4	(<1)	5	(2)	10	(<1)	13	(2)
5-12	2	(<1)	3	(1)	5	(<1)	4	(1)
13-19	9	(<1)	4	(1)	28	(<1)	11	(1)
20-29	969	(16)	84	(26)	1,540	(17)	180	(24)
30-39	2,908	(49)	135	(42)	4,224	(47)	303	(41)
40-49	1,536	(26)	56	(18)	2,280	(25)	152	(20)
50-59	427	(7)	20	(6)	657	(7)	55	(7)
> 59	97	(2)	11	(3)	200	(2)	27	(4)
TOTAL	**5,952**	**(100)**	**318**	**(100)**	**8,944**	**(100)**	**745**	**(100)**

[1] AIDS by 1993 surveillance case definition

Table 6. AIDS[1] cases, deaths, and case-fatality rates by year Reported as of 6/30/01 - King County and WA State

	KING COUNTY				WASHINGTON STATE		
YEAR OF DIAGNOSIS	CASES	(% TOTAL WA CASES)	DEATHS[2]	CASE-FATALITY RATE (%)[3]	CASES	DEATHS[2]	CASE-FATALITY RATE (%)[3]
1982	1	(100)	1	(100)	1	1	(100)
1983	12	(57)	11	(92)	21	20	(95)
1984	60	(76)	57	(95)	79	76	(96)
1985	104	(79)	100	(96)	131	127	(97)
1986	186	(75)	178	(96)	249	241	(97)
1987	274	(74)	262	(96)	370	353	(95)
1988	352	(71)	323	(92)	496	458	(92)
1989	460	(73)	417	(91)	628	566	(90)
1990	518	(68)	452	(87)	757	663	(88)
1991	561	(66)	467	(83)	853	712	(83)
1992	619	(67)	435	(70)	922	667	(72)
1993	644	(65)	387	(60)	994	615	(62)
1994	540	(61)	248	(46)	887	423	(48)
1995	507	(64)	133	(26)	792	224	(28)
1996	420	(59)	56	(13)	710	109	(15)
1997	295	(56)	39	(13)	526	66	(13)
1998	250	(62)	25	(10)	406	47	(12)
1999	186	(52)	14	(8)	359	37	(10)
2000[4]	235	(57)	21	(9)	412	33	(8)
2001[4]	46	(48)	1	(2)	96	2	(2)
TOTAL	**6,270**	**(65)**	**3,627**	**(58)**	**9,689**	**5,440**	**(56)**

[1]AIDS by 1993 surveillance case definition
[2]Number of deaths among persons diagnosed each year
[3]Percent of cases diagnosed in each year whose deaths have been reported to date
[4]Reporting for recent years is incomplete

Table 7A. AIDS cases by HIV exposure category and year of diagnosis Reported as of 6/30/01 - King County

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	186	(63)	160	(64)	124	(67)	149	(63)	24	(52)
Injection drug use (IDU)	15	(5)	25	(10)	14	(8)	24	(10)	4	(9)
IDU & male-male sex	34	(12)	23	(9)	17	(9)	20	(9)	2	(4)
Heterosexual contact	16	(5)	11	(4)	13	(7)	28	(12)	8	(17)
Hemophilia	3	(1)	0	(0)	1	(1)	1	(<1)	0	(0)
Transfusion/transplant	3	(1)	3	(1)	1	(1)	1	(<1)	0	(0)
Mother at risk/has HIV	1	(<1)	0	(0)	0	(0)	1	(<1)	0	(0)
Undetermined/other	37	(13)	28	(11)	16	(9)	11	(5)	8	(17)

Table 7B. AIDS cases by HIV exposure category and year of diagnosis Reported as of 6/30/01 - Other Counties

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	105	(45)	70	(45)	71	(41)	86	(49)	23	(46)
Injection drug use (IDU)	42	(18)	33	(21)	33	(19)	29	(16)	9	(18)
IDU & male-male sex	18	(8)	11	(7)	16	(9)	10	(6)	3	(6)
Heterosexual contact	29	(13)	22	(14)	24	(14)	19	(11)	4	(8)
Hemophilia	4	(2)	0	(0)	1	(1)	1	(1)	0	(0)
Transfusion/transplant	4	(2)	1	(1)	1	(1)	1	(1)	0	(0)
Mother at risk/has HIV	1	(<1)	0	(0)	0	(0)	1	(1)	0	(0)
Undetermined/other[3]	28	(12)	19	(12)	27	(16)	30	(17)	11	(22)

Table 7C. AIDS cases by HIV exposure category and year of diagnosis Reported as of 6/30/01 - WA State

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	291	(55)	230	(57)	195	(54)	235	(57)	47	(49)
Injection drug use (IDU)	57	(11)	58	(14)	47	(13)	53	(13)	13	(14)
IDU & male-male sex	52	(10)	34	(8)	33	(9)	30	(7)	5	(5)
Heterosexual contact	45	(9)	33	(8)	37	(10)	47	(11)	12	(13)
Hemophilia	7	(1)	0	(0)	2	(1)	2	(<1)	0	(0)
Transfusion/transplant	7	(1)	4	(1)	2	(1)	2	(<1)	0	(0)
Mother at risk/has HIV	2	(<1)	0	(0)	0	(0)	2	(<1)	0	(0)
Undetermined/other[3]	65	(12)	47	(12)	43	(12)	41	(10)	19	(20)

[1]Reporting for recent years is incomplete
[2]Year to date (cases reported as of 6/30/01)
[3]Includes patients for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), patients still under investigation, patients whose only risk was heterosexual contact where the risk of the sexual partner was undetermined, persons exposed to HIV through their occupation, and patients whose mode of exposure remains undetermined

Table 8A. AIDS cases by age/gender and year of diagnosis Reported as of 6/30/01 - King County

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	271	(92)	226	(90)	170	(91)	204	(87)	38	(83)
Adult Female Cases	23	(8)	24	(10)	16	(9)	30	(13)	8	(17)
Pediatric Cases	1	(<1)	0	(0)	0	(0)	1	(<1)	0	(0)

Table 8B. AIDS cases by age/gender and year of diagnosis Reported as of 6/30/01 - Other counties

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	191	(83)	137	(88)	139	(80)	147	(83)	44	(88)
Adult Female Cases	39	(17)	19	(12)	34	(20)	29	(16)	6	(12)
Pediatric Cases	1	(<1)	0	(0)	0	(0)	1	(1)	0	(0)

Table 8C. AIDS cases by age/gender and year of diagnosis Reported as of 6/30/01 - WA State

	1997		1998		1999		2000[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	462	(88)	363	(89)	309	(86)	351	(85)	82	(85)
Adult Female Cases	62	(12)	43	(11)	50	(14)	59	(14)	14	(15)
Pediatric Cases	2	(<1)	0	(0)	0	(0)	2	(<1)	0	(0)

[1] Reporting for years is incomplete
[2] Year to date (cases reported as of 6/30/01)

Table 9. Deaths of reported AIDS cases by year of death Reported as of 6/30/01 - King County, Other counties, WA State

	1997		1998		1999		2000[1]		2001[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
King County	106	(49)	87	(58)	61	(52)	68	(62)	25	(76)
Other Counties	110	(51)	63	(42)	56	(48)	42	(38)	8	(24)
All WA State	216	(100)	150	(100)	117	(100)	110	(100)	33	(100)

[1] Reporting for recent years is incomplete
[2] Year to date (deaths reported as of 6/30/01)

Table 10. Demographic characteristics of cumulative reported HIV non-AIDS[1] cases - King County, other WA counties, all WA State, U.S.

	KING[2] COUNTY		OTHER[2] COUNTIES		ALL WA[2] STATE		TOTAL[3] U.S.	
Cases reported as of:	6/30/01		6/30/01		6/30/01		12/31/00[4]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
SEX								
Male	1,528	(88)	647	(76)	2,175	(84)	98,771	(72)
Female	202	(12)	209	(24)	411	(16)	39,229	(28)
Unknown	0	(0)	0	(0)	0	(0)	11	(<1)
AGE GROUP								
<13	17	(1)	16	(5)	33	(1)	2,134	(2)
13-19	44	(3)	32	(4)	76	(3)	5,579	(4)
20-29	597	(35)	312	(36)	909	(35)	45,353	(33)
30-39	723	(42)	303	(34)	1026	(40)	53,265	(39)
40-49	280	(16)	147	(16)	427	(17)	23,625	(17)
50-59	62	(4)	41	(5)	103	(4)	6,000	(4)
>59	7	(<1)	5	(<1)	12	(<1)	2,044	(1)
Unknown	0	(0)	0	(0)	0	(0)	11	(<1)
RACE/ETHNICITY								
White, not Hispanic	1,283	(74)	641	(75)	1,924	(74)	51,507	(37)
Black, not Hispanic	249	(14)	94	(11)	343	(13)	71,920	(52)
Hispanic	125	(7)	71	(8)	196	(8)	11,417	(8)
Asian/Pacific Islander	37	(2)	18	(2)	55	(2)	548	(<1)
American Indian/AK Native	28	(2)	17	(2)	45	(2)	871	(1)
Unknown	8	(<1)	15	(2)	23	(1)	1,748	(1)
HIV EXPOSURE CATEGORY								
Male-male sex	1,198	(69)	368	(43)	1,566	(61)	44,467	(32)
Injection drug use (IDU)	111	(6)	158	(18)	269	(10)	20,526	(15)
IDU and make-male sex	161	(9)	83	(10)	244	(9)	6,042	(4)
Heterosexual contact	92	(5)	124	(14)	216	(8)	22,830	(17)
Hemophilia	8	(<1)	4	(<1)	12	(<1)	569	(<1)
Transfusion/transplant	5	(<1)	5	(1)	10	(<1)	867	(1)
Mother at risk/has HIV	15	(1)	15	(2)	30	(1)	1,860	(1)
Undetermined/other	140	(8)	99	(12)	239	(9)	40,850	(30)
TOTAL CASES	1,730	(100)	856	(100)	2,586	(100)	138,011	(100)

[1] Persons reported with HIV infection who have not developed AIDS
[2] HIV infection reports received as of 6/30/01. HIV reporting was implemented in 9/99; reporting of cases diagnosed before 9/99 is incomplete at this time
[3] Includes HIV case reports from 36 states and territories with confidential named HIV reporting; excludes WA State at this time.
[4] Most recent date that complete U.S. statistics are available
[5] Includes patients for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), patients still under investigation, patients whose only risk was heterosexual contact where the risk of the sexual partner was undetermined, persons exposed to HIV through their occupation, and patients whose mode of exposure remains undetermined

Epidemiological Profile of AIDS in Washington State Residents Living Outside Seattle-King County

Acquired immunodeficiency syndrome (AIDS) is a specific group of diseases and conditions indicative of severe immunosupression caused by infection with the human immunodeficiency virus (HIV). In Washington State, the AIDS epidemic historically has predominately affected whites, individuals 30 to 39 years of age, and men who have sex with men (MSM). The majority of the cases are reported to be living in the Seattle-King County (S-KC) area at the time of diagnosis, but the proportion of AIDS cases living outside S-KC is increasing. Recent trends also show a rise in the number of females and racial/ethnic minorities affected, as well as an increase in the proportion of cases attributed to injection drug use (IDU) and to heterosexual contact.

Methods

This report is based on AIDS cases in Washington State diagnosed through December 31, 2000 and reported to the Department of Health through June 30, 2001. The AIDS cases in this report include those meeting the 1993 revision of the AIDS surveillance case definition as well as earlier versions. Cases were categorized as S-KC or non-King County and by AIDS Service Network (AIDSNET) Region, according to the county of residence at AIDS diagnosis. King County comprises Region 4; for the other AIDSNET regions, the most populous counties are Spokane (Region 1), Yakima (Region 2), Snohomish (Region 3), Pierce (Region 5), and Clark (Region 6). All patients diagnosed in 1999-2000 may not have been reported in time for this summary; therefore, absolute numbers of cases diagnosed should be considered provisional. Table 1 presents characteristics of Washington State AIDS cases since the beginning of the epidemic in 1982 and is for reference only. Table 2 presents current characteristic of those diagnosed since 1993. This article will focus on those most recently diagnosed and, unless noted, refer to Table 2.

The Impact of AIDS in Washington

Figure 1 illustrates the epidemic curve of reported AIDS cases for the years 1982 to 2000 for SK-C and the rest of the state. The greatest number of cases was diagnosed in 1993

Figure 1. King County and non-King County AIDS cases by year of diagnosis, 1982-2000

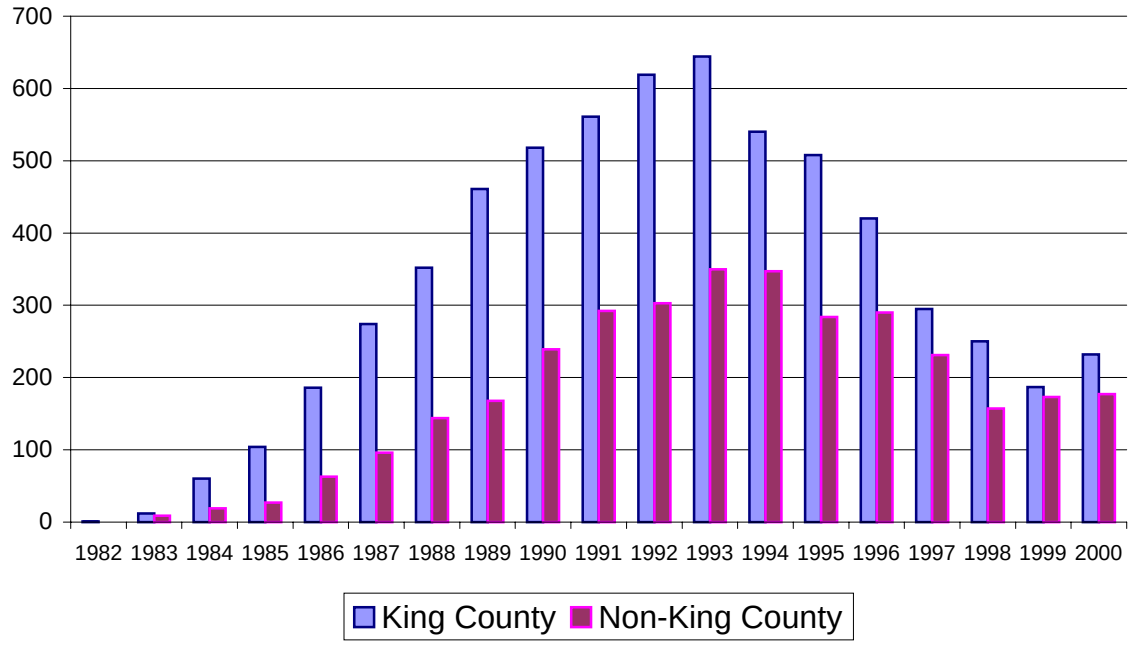


Table 1. Characteristics of cumulative Washington State AIDS cases by AIDSNET Region diagnosed through 2000 and reported to the Department of Health by June 30, 2001

AIDSNET Region	1	2	3	5	6	Non-S-KC	S-KC
Sex							
Male	490 (93%)	262 (87%)	654 (88%)	858 (84%)	683 (88%)	2947 (88%)	5913 (95%)
Female	35 (7%)	40 (13%)	91 (12%)	166 (16%)	90 (12%)	422 (13%)	311 (5%)
Race/Ethnicity							
White	451 (86%)	200 (66%)	635 (85%)	719 (70%)	676 (88%)	2681 (80%)	4971 (80%)
Black	22 (4%)	13 (4%)	35 (5%)	192 (19%)	35 (5%)	297 (9%)	661 (11%)
Hispanic	29 (6%)	84 (28%)	36 (5%)	71 (7%)	37 (5%)	257 (8%)	381 (6%)
Asian/PI	3 (1%)	1 (<1%)	16 (2%)	20 (2%)	6 (1%)	46 (1%)	119 (2%)
Am Ind/AK Native	13 (3%)	4 (1%)	22 (3%)	21 (2%)	16 (2%)	76 (2%)	92 (2%)
Unknown	7 (1%)	0	1 (<1%)	1 (<1%)	3 (<1%)	12 (<1%)	0
Age at Diagnosis							
0-12	2 (<1%)	2 (1%)	4 (1%)	9 (1%)	1 (<1%)	18 (1%)	15 (<1%)
13-19	5 (1%)	5 (2%)	3 (<1%)	7 (1%)	5 (1%)	25 (1%)	13 (<1%)
20-29	93 (18%)	75 (25%)	130 (17%)	229 (22%)	136 (18%)	663 (20%)	1050 (17%)
30-39	242 (46%)	115 (38%)	321 (43%)	456 (45%)	334 (43%)	1468 (44%)	3015 (48%)
40-49	113 (22%)	71 (24%)	209 (28%)	218 (21%)	209 (27%)	820 (24%)	1578 (25%)
50-59	53 (10%)	26 (9%)	49 (7%)	79 (8%)	51 (7%)	258 (8%)	445 (7%)
Over 59	17 (3%)	8 (3%)	29 (4%)	26 (3%)	37 (5%)	117 (4%)	108 (2%)
Exposure Category							
MSM	308 (59%)	158 (52%)	436 (59%)	521 (51%)	450 (58%)	1873 (56%)	4688 (75%)
IDU	78 (15%)	38 (13%)	81 (11%)	183 (18%)	121 (16%)	501 (15%)	354 (6%)
MSM/IDU	53 (10%)	34 (11%)	77 (10%)	98 (10%)	61 (8%)	323 (10%)	633 (10%)
Heterosexual contact	29 (6%)	32 (11%)	69 (9%)	104 (10%)	71 (9%)	305 (9%)	223 (4%)
Hemophillia	5 (1%)	7 (2%)	11 (2%)	19 (2%)	14 (2%)	56 (2%)	31 (1%)
Transfusion/transplant	15 (3%)	2 (1%)	14 (2%)	19 (2%)	17 (2%)	67 (2%)	53 (1%)
Mother at Risk/has HIV+	2 (<1%)	2 (1%)	2 (<1%)	8 (1%)	1 (<1%)	15 (<1%)	14 (<1%)
Undetermined/other	35 (7%)	29 (10%)	55 (7%)	72 (7%)	38 (5%)	229 (7%)	227 (4%)
Total	**525 (6%)**	**302 (3%)**	**745 (8%)**	**1024 (11%)**	**773 (8%)**	**3369 (35%)**	**6224 (65%)**
Presumed Living	**240 (46%)**	**138 (46%)**	**335 (45%)**	**461 (45%)**	**366 (47%)**	**1540 (46%)**	**2607 (42%)**

Percentages may add up to more than 100% due to rounding

with the annual AIDS incidence decreasing until 2000, when both SK-C and non-SKC experienced an increase in diagnosed cases. In 1993, the AIDS case definition was expanded by the Centers for Disease Control and Prevention (CDC) to include not only HIV positive individuals with an opportunistic infection, but also asymptomatic infection with laboratory evidence of severe immunodeficiency. As a result, persons were reported earlier in the course of their disease, a phenomenon that contributed to an apparent peak in AIDS incidence. The 1993 peak in case numbers and the subsequent decline likely relates to several factors: the 1993 case definition change; the use of improved antiretroviral therapies forestalling the development of AIDS among persons with HIV infection; and earlier reductions in HIV transmission rates due to behavioral changes among populations receiving HIV prevention messages. The recent increase in cases may be attributed to a combination of factors, including enhanced lab-based reporting and increased attention to surveillance due to initiation of HIV reporting; failure of drug therapies; and inadequate access to and adherence to treatment in some populations.

There have been 9,593 AIDS cases reported to

the Washington State Department of Health with a diagnosis date before January 1, 2001. For cases reported to the CDC, Washington ranked 29th among states including the District of Columbia in the number of AIDS cases reported July 1999 through June 2000, and ranked 25th among states for the rate of AIDS cases. The 409 Washington AIDS cases diagnosed in 2000 represented a 14% increase from the number of cases diagnosed in 1999. The annual incidence of AIDS in Washington State per 100,000 population declined from 19.0 in 1993 to 6.3 in 1999, but increased again in 2000 to 7.0 AIDS cases per 100,000 population. Of all AIDS cases reported since 1982, 57% are known to have died. Deaths due to AIDS have declined in recent years (Figure 2). In 1999, in Washington State, 130 deaths of diagnosed AIDS cases were reported while in 2000, 109 deaths were reported, representing a 16% decrease. Outside of King County, AIDS deaths decreased 37%, from 68 deaths in 1999 to 43 in 2000.

In Washington State, 4,147 (43%) of the 9,593 reported AIDS cases are presumed living (i.e., not known to have died) as of June 2001. Of those presumed to be alive, 1,540 cases (37%) were reported with a residence at diagnosis outside S-KC and 63% of them resided in S-KC at the time of diagnosis. At the peak in 1993, 65% of cases diagnosed that year were reported among S-KC residents and 35% were from outside S-KC. In 2000, 57% of the cases were reported in S-KC, while the proportion of cases reported from outside S-KC increased to 43%.

Trends in persons developing AIDS may also be assessed geographically. The trends presented are based on AIDSNET region of residence at time of diagnosis. Figure 3 shows the trends in AIDS case rates for the AIDSNET regions excluding Region 4 (King County) per 100,000 population. In Regions 1, 3 and 6 the number of cases diagnosed from 1999 to 2000 decreased with Region 3 experiencing the greatest decline (19%) and Region 1 the smallest (9%). In Regions 2 and 5, the number of cases diagnosed from 1999 to 2000 increased by 38% and 27%, respectively. Of cases diagnosed since 1993 outside King County, the highest number was from Region 5 with 610 cases (12%), followed by Region 6 with 463 cases (9%) and Region 3 with 450 cases (9%). ***Note:*** *Geographic data should be interpreted with caution since a person's county of residence at the time of AIDS diagnosis may not necessarily represent where they acquired HIV infection.*

Region 5 continued to have the highest proportion of female cases with 21% of total cases being women. Other regions with high proportions of female AIDS cases include Region 2 (16%) and Region 3 (15%). In comparison, only 7% of S-KC cases diagnosed since 1993 were among women.

The proportion of non-Hispanic black cases ranged from 5% in Regions 1and 2 to 20% in Region 5. Region 2 had the highest proportion of Hispanic cases (35%). In all regions, the majority of the AIDS cases were diagnosed

Figure 2. Number of AIDS cases and deaths in Washington State by year, 1982-2000

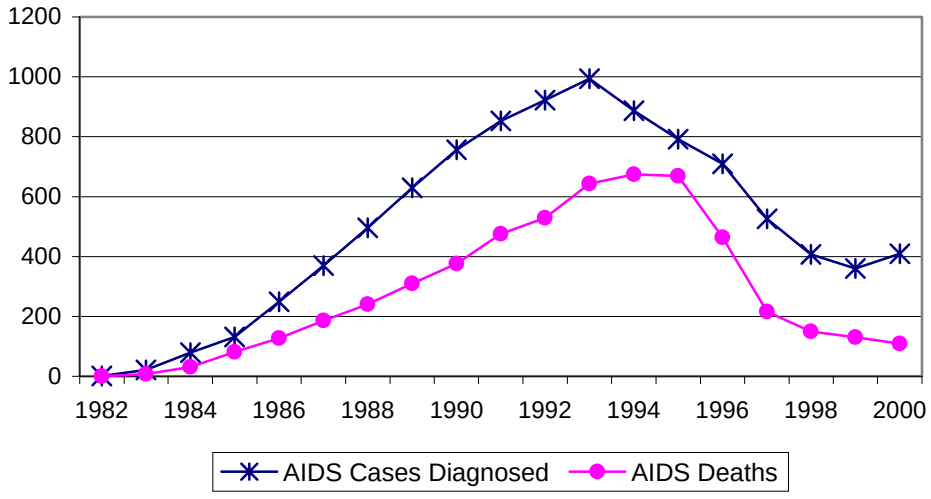
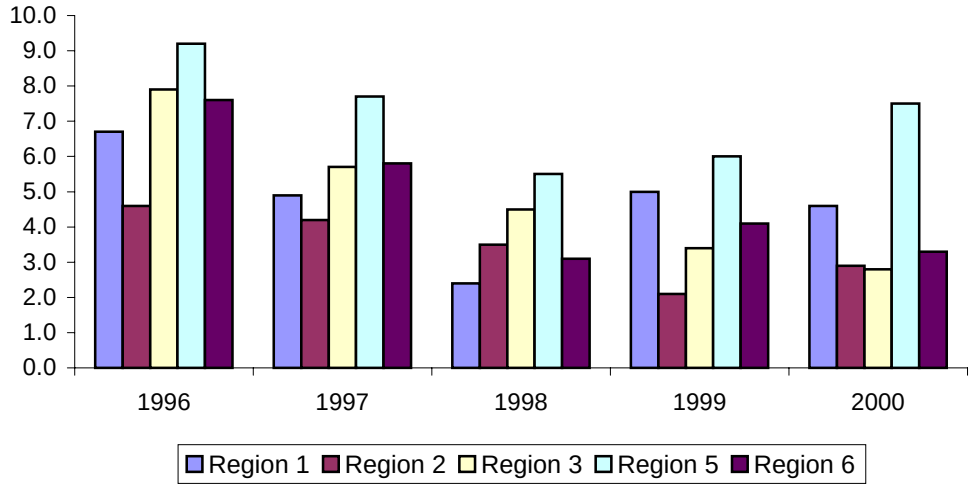


Figure 3. Incidence of AIDS per 100,000 population by AIDSNET Region* of residence at time of diagnosis and year of diagnosis, 1996-2000



* Data shown exclude Region 4 (King County).

between 30-39 years of age. Region 2 had a higher proportion of 20-29 year old cases (28%), while the proportion of cases in the 40-49 year old age group was higher in the other regions.

MSM continues to be the major exposure category for all the regions outside S-KC, although the proportion of cases is decreasing. In Region 2, a higher proportion (15%) of AIDS cases were contracted through heterosexual contact and in Region 5, a greater percentage (23%) were due to injection drug use (IDU). The proportion of AIDS cases with no identified risk (NIR) ranged from 7% in Region 6 to 13% in Region 2.

Gender

Of the 409 AIDS cases diagnosed in 2000, males made up the majority (85%) while females comprised 15%. Trends show that the number of male cases has declined by 62% from a peak of 916 cases in 1993. From 1999 to 2000, the rate of AIDS outside King County increased for males (from 6.8 per 100,000 to 7.2 per 100,000) and decreased for females (from 1.7/100,000 to 1.5/100,000). While the proportion of male cases has been declining, the proportion of cases in women has been steadily increasing. In 1986, women comprised only 2% of all cases diagnosed whereas in 2000, 15% were female, the highest proportion thus far in the epidemic.

Race/Ethnicity

The majority of cumulative AIDS cases reported since 1993 in Washington State have been diagnosed in whites, both in S-KC (74%) and outside S-KC (76%). Among persons of color, AIDS case numbers were higher in non-Hispanic blacks than in other racial/ethnic groups. Non-Hispanic blacks and Hispanics accounted for 12% and 10%, respectively, of all persons diagnosed with AIDS outside King County in 2000; this is an increase in proportion in non-Hispanic black cases and a decrease for Hispanic cases compared to 1999. Non-Hispanic whites, non-Hispanic blacks and American Indian/Alaskan Natives experienced increases in case numbers whereas there was a decrease in the number of cases diagnosed in Hispanics and Asian/Pacific Islanders from 1999 and 2000. Non-Hispanic whites had the greatest increase in the proportion of cases from 1999 to 2000 (from 69% to 72%); Hispanics had the greatest decrease in proportion (from 14% to 10%).

Age

Historically, the majority of AIDS cases in the state have been in the 30-39 years age group. From 1999 to 2000, outside SKC, the follow-

ing age groups experienced a decline in AIDS case numbers: 20-29 (decreasing 19%), 30-39 (decreasing 13%), and 60+ (decreasing 44%). Increases were seen in 40-49 year olds (increasing 29%) and those age 50-59 (increasing 42%). The proportion of AIDS cases in individuals aged 13-19 remained stable and there was one case under 13 reported in 2000. Thirty to thirty-nine year olds experienced the greatest proportional decline from 1999 to 2000 (from 41% to 35%); the age group 40-49 the greatest proportional increase (from 26% to 33%). One possible reason for the shift to the older age categories is the ability of the new therapies to sustain peoples' health for a longer period of time, delaying the progression to AIDS.

Mode of HIV Exposure

The most commonly reported HIV infection exposure group continues to be MSM, accounting for 49% of non-S-KC and 71% of S-KC cases diagnosed since 1993. For cumulative cases diagnosed outside of S-KC, the next most commonly reported infection risk group was IDU (18%), while in S-KC it was MSM/IDU (9%). Twelve percent of cases reported heterosexual contact as a risk outside King County, while only 5% reported heterosexual contact as a risk in King County.

In Washington State, excluding King County, from 1999 to 2000, AIDS incidence increased 21% among MSM but decreased or remained stable among all other at-risk groups with the greatest proportional declines in MSM/IDU (decreasing 38%) and those infected through heterosexual contact (decreasing 21%). Cases attributable to MSM made up an increasing proportion of cases from 1999 to 2000 (from 41% to 49%). The proportion of cases with no identified risk increased from 1999 to 2000. More recently diagnosed cases may still be under investigation to determine the HIV exposure mode.

Since 1993, in non-King County, MSM has been the major mode of transmission for males, accounting for 64% of all cases. Heterosexual contact was the most often reported risk for females (47%). IDUs diagnosed with AIDS represented 13% of cases in men and 31% of cases in women. MSM was reported as the most common risk for all regions. Injection drug use was the second most reported risk for Regions 1, 5, and 6; heterosexual contact was the second most reported risk for Regions 2 and 3. The third most common risk was MSM/IDU for Region 1; IDU for Regions 2 and 3; and heterosexual contact for Regions 5 and 6.

Pediatric AIDS Cases

There have been a total of 33 pediatric (under 13 years of age) AIDS cases reported in Washington State through June 30, 2001. In 2000, there was one pediatric AIDS cases reported compared to zero in 1999. The number of pediatric cases in Washington has always been small due to the relatively small number of women with HIV in the state, and also likely reflecting the continued success of efforts to reduce perinatal transmission through promotion of voluntary HIV testing and antiretroviral therapy for pregnant HIV-infected women and their infants. Similar trends have been observed in states with higher rates of pediatric HIV and AIDS.

Comments

The most notable trend over the past year is the increase in the number of AIDS cases diagnosed in Washington State. The increase in AIDS case numbers may be attributable, in part, to enhanced lab reporting and increased attention to surveillance that resulted from initiation of HIV reporting; it may also be a result of therapy failures related to resistance and difficult adherence issues. Most likely, it is a combination of these factors.

The epidemic more recently appears to be affecting different populations, namely females and non-Hispanic blacks. While the rate of male cases outside King County increased from 1999-2000, the proportion of female cases in 2000 was higher than it has ever been in the past. The proportion of Hispanic cases, previously increasing, declined from 1999-2000. Increases were seen in the proportion of cases that contracted HIV by IDU or heterosexual contact. Region 5 has comprised a greater proportion of AIDS cases outside S-KC, with a higher proportion of cases in women, non-Hispanic blacks, and injection drug users than other regions. While 30-39 year olds made up the largest proportion of AIDS cases in all regions, Region 2 also had a high proportion of younger people (20-29 year olds) affected by

Table 2. Characteristics of Washington State AIDS cases diagnosed through 2000, by AIDSNET Region of residence at time of diagnosis, as reported to the Department of Health January 1, 1993 through June 30, 2001

AIDSNET Region	1	2	3	5	6	Non-S-KC	S-KC
Sex							
Male	272 (92%)	159 (84%)	381 (85%)	481 (79%)	401 (87%)	1694 (84%)	2861 (93%)
Female	25 (8%)	30 (16%)	69 (15%)	129 (21%)	62 (13%)	315 (16%)	215 (7%)
Race/Ethnicity							
White	244 (82%)	112 (59%)	371 (82%)	411 (67%)	386 (83%)	1524 (76%)	2288 (74%)
Black	16 (5%)	9 (5%)	25 (6%)	124 (20%)	32 (7%)	206 (10%)	409 (13%)
Hispanic	19 (6%)	66 (35%)	25 (6%)	43 (7%)	28 (6%)	181 (9%)	249 (8%)
Asian/PI	1 (<1%)	0	11 (2%)	16 (3%)	5 (1%)	33 (2%)	67 (2%)
Am Ind/AK Native	10 (3%)	2 (1%)	17 (4%)	15 (3%)	9 (2%)	53 (3%)	63 (2%)
Unknown	7 (2%)	0	1 (<1%)	1 (<1%)	3 (1%)	12 (1%)	0
Age at Diagnosis							
0-12	2 (1%)	2 (1%)	1 (<1%)	3 (1%)	1 (<1%)	9 (<1%)	8 (<1%)
13-19	2 (1%)	3 (2%)	2 (<1%)	5 (1%)	3 (1%)	15 (1%)	5 (<1%)
20-29	38 (13%)	53 (28%)	77 (17%)	107 (18%)	75 (16%)	350 (17%)	475 (15%)
30-39	140 (47%)	69 (37%)	189 (42%)	283 (46%)	208 (45%)	889 (44%)	1457 (47%)
40-49	75 (25%)	40 (21%)	133 (30%)	149 (24%)	127 (27%)	524 (26%)	841 (27%)
50-59	32 (11%)	18 (10%)	31 (7%)	46 (8%)	29 (6%)	156 (8%)	246 (8%)
Over 59	8 (3%)	4 (2%)	17 (4%)	17 (3%)	20 (4%)	66 (3%)	44 (1%)
Exposure Category							
MSM	155 (52%)	87 (46%)	231 (51%)	268 (44%)	246 (53%)	987 (49%)	2184 (71%)
IDU	57 (19%)	26 (14%)	54 (12%)	138 (23%)	91 (20%)	366 (18%)	223 (7%)
MSM/IDU	28 (9%)	15 (8%)	41 (9%)	51 (8%)	32 (7%)	167 (8%)	285 (9%)
Heterosexual contact	19 (6%)	29 (15%)	60 (13%)	87 (14%)	48 (10%)	243 (12%)	161 (5%)
Hemophillia	0	4 (2%)	6 (1%)	7 (1%)	7 (2%)	24 (1%)	12 (<1%)
Transfusion/transplant	6 (2%)	2 (1%)	8 (2%)	5 (1%)	4 (1%)	25 (1%)	12 (<1%)
Mother at Risk/has HIV+	2 (1%)	2 (1%)	1 (<1%)	3 (1%)	1 (<1%)	9 (<1%)	8 (<1%)
Undetermined/other	30 (10%)	24 (13%)	49 (11%)	51 (8%)	34 (7%)	188 (9%)	190 (6%)
Total	**297 (6%)**	**189 (4%)**	**450 (9%)**	**610 (12%)**	**463 (9%)**	**2009 (40%)**	**3076 (60%)**
Presumed Living	**207 (70%)**	**118 (62%)**	**303 (67%)**	**410 (67%)**	**326 (70%)**	**1364 (68%)**	**2160 (70%)**

Percentages may add up to more than 100% due to rounding

AIDS. AIDS deaths continue to decline although much more slowly since 1998 compared to 1995-98. These trends are important guides for future prevention activities.

Before 9/1/99, the state of Washington only required reporting of AIDS and symptomatic HIV cases. On September 1, 1999 Washington Administrative Code was changed, adding asymptomatic HIV infection as a reportable condition in Washington State. Future articles will include HIV data, which will reveal more about the HIV/AIDS epidemic in Washington State and will improve the information base upon which HIV prevention and care services are planned.

❑ *Contributed by Kristen Janusz MPH*

[1] Centers for Disease Control and Prevention. **HIV/AIDS Surveillance Report,** 2000:12(1):p.6.

Trends in Utilization and Cost of HIV-Related Hospitalizations, Washington State, 1995-1999

Analysis of trends in the utilization of inpatient services by persons with HIV infection, based on hospital billing data, has been useful for program planning, evaluating the impact of new therapies and assessing the effectiveness of federal and state programs in providing access to inpatient care. Studies of hospitalization rates, associated costs and payment source for persons with HIV infection and AIDS in Washington State have been used to describe trends; however, these analyses included hospitalizations only for patients with a documented diagnosis of AIDS based on surveillance records, regardless of the nature of the hospitalization.[1-3] Inclusion of patients with HIV infection who have not necessarily been reported to the surveillance system would better reflect actual rates and costs. To broaden the analysis to included these patients and to more narrowly focus on hospitalizations for conditions directly associated with HIV infection, we identified inpatient admissions where the Diagnosis Related Group (DRG)[4] billing code assigned at discharge was specific for an HIV-related condition.

Methods

Data were obtained from the Washington State Comprehensive Hospital Abstract Reporting System (CHARS), which contains hospital admissions data from non-military facilities in Washington State. CHARS data are collected and maintained by the Washington State Department of Health (DOH), Office of Hospital & Patient Data Systems. Individual CHARS discharge records for 1995 through 1999 were provided for analysis based on presence of at least one ICD-9[5] code indicative of HIV/AIDS (codes 042-044). To better reflect hospitalizations specifically related to HIV infection among this subset of CHARS records, analyses were performed only on cases assigned an HIV-specific DRG code of 488, 489 or 490 at discharge.

Analyses of medical charges excluded patients hospitalized at some Group Health Cooperative facilities that do not report inpatient charges to CHARS. However, patients hospitalized at these facilities were included in analyses of length of hospital stay, type of admission, and payment source for care.[6] Charge data analyses also excluded admissions resulting in the death of the patient.[7] Previous studies have shown that cost of care sharply increases prior to death, due in part to resuscitation procedures.[8] Excluding decedents provides a more realistic indication of the ongoing cost of HIV care. Charges reported for 1995 through 1998 are adjusted for inflation to 1999 dollars according to the Consumer Price Index for Medical Care Services (base period 1982-84).[9]

The Mantel-Haenszel chi-squared test for trend was used to determine statistical significance of trends in categorical data such as admission type and primary payers. The Kruskal-Wallis test was used to assess significance of five-year trends, and Mann-Whitney test was used for two-year trends in hospital charges.

Results

Utilization of inpatient services for 1995 through 1999 is presented in Table 1. The number of hospitalizations and the number of persons hospitalized with HIV-indicator conditions declined during this period by 56% and 53%, respectively. The mean number of admissions per patient (1.5 in 1999) and the average length of hospitalization per admission (6.7 days, median 4 days in 1999) have not significantly changed since 1995. The proportion of persons admitted with *Pneumocystis carinii* pneumonia (PCP) decreased significantly from 23% in 1995 to 16% in 1999 (p=0.002). However, there was a significant increase in the percentage of persons with HIV infection admitted through the emergency room, from 40% in 1995 to 54% in 1999 (p=0.0001).

Table 2 presents the change in inflation-adjusted charges for inpatient care for HIV infected persons from 1995 through 1999. The total charges incurred for hospitalizations de-

Table 1. HIV-Related Hospital Utilization, Washington State, 1995-1999

	1995	1996	1997	1998	1999
TOTAL ADMISSIONS	**1,524**	**1,246**	**764**	**698**	**674**
TOTAL PATIENTS	**942**	**772**	**512**	**458**	**446**
Mean admissions per patient	1.6	1.6	1.5	1.5	1.5
Mean length of stay in days	6.4	6.4	6.5	6.3	6.7
(Median)	(4.5)	(5.0)	(4.0)	(4.0)	(4.0)
Range	1-111	1-45	1-62	1-72	1-82
Admitted from emergency room (ER)[1]	40.0%	44.1%	46.5%	51.7%	53.7%
Admitted with PCP[2]	22.5%	19.3%	19.6%	20.2%	16.0%

[1]1995-1999 trend significant, p<0.0001
[2]1995-1999 trend significant, p=0.002; 1998-1999 trend significant, p= 0.04

creased from $14.7 million in 1995 to $7.6 million in 1998. However, total charges increased to $9.5 million in 1999, reversing the downward trend. The mean charge per admission, charge per day, charge per emergency room admission, and charge per PCP admission have increased overall during the study period. Of particular note, the mean charge per admission, charge per day, and charge per emergency room admission increased steeply from 1998 to 1999.

Table 3 shows the proportion of admissions for each designated primary payer in the five-year period. A significant increase in reliance on Medicare for payment of inpatient charges related to HIV infection is noted from 1995 (20%) to 1999 (33%). The proportion of hospitalizations for which Medicaid was the primary payer also increased significantly, from 25% in 1995 to 32% in 1999; the overall burden on federally funded programs increased from 46% in 1995 to 65% in 1999. This increase was accompanied by a concurrent decrease in reliance on health maintenance organizations (HMOs) and health care service contractors (HCSCs). A significantly smaller percentage of admissions indicated commercial insurance (private health care plans other than health maintenance organizations) as their primary payer in 1999 (12%) than in 1995 (19%); however, there was a significant increase of 7% from 1998 to 1999. The number of admissions that were paid by the patient also increased from 5% in 1995 to 7% in 1999.

Discussion

Identifying trends in inpatient costs directly associated with the treatment of HIV-related conditions has become more complex in the era of highly active antiretroviral treatments (HAART). As persons with HIV disease continue to experience significant decreases in HIV-related morbidity and accompanying improvements in quality of life, distinguishing hospitalizations and disease morbidity not directly related to HIV becomes problematic. However, the need to analyze these data continues to be important for monitoring potential adverse trends such as treatment failure or the emergence of widespread viral resistance. In light of these considerations, this study employs HIV-specific DRG codes for analysis rather than the more general approach of basing analyses on records with HIV-related ICD-9 codes present in either a primary or secondary diagnosis field.

The number of persons in Washington living with AIDS increased 37% between 1995 and 1999.[10] Analysis of the CHARS data demonstrates that total HIV-related admissions and the number of persons requiring hospitalization for HIV-related conditions (Table 1) fell dramatically during this same period. Reductions in inpatient admissions have elsewhere been linked to the successful dissemination and initial clinical efficacy of HAART regimens,[11,12] yet the number of admissions per patient and length of stay per admission have not changed significantly during this time.

This suggests that the nature of inpatient services utilized by those patients requiring admission has remained stable in spite of the observed reduction in the overall number of HIV-related hospital admissions. The percentage of admissions with a PCP diagnosis remained stable from 1995 to 1998, however, a significant drop was observed between 1998 and 1999 (from 20% to 16%). Recommendations for the continuation of PCP prophylaxis, in light of increased CD4+ counts in response to HAART, were being re-evaluated during this time period.

Source of admission may potentially illuminate trends in primary care delivery for persons with HIV. The analysis revealed that the percent of patients admitted from the emergency room significantly increased during this time period from 40% of admissions in 1995 to 54% in 1999. Further investigation is warranted to determine whether this trend indicates a real shift in patterns of care delivery. Moreover, as the epidemic continues to disproportionately impact minorities and women in Washington State, issues related to access to primary care become increasingly important; the economic and clinical consequences

Table 2. Charges for Hospitalizations Among Persons with HIV Infection, Washington State, 1995-1999[1]

	1995	1996	1997	1998	1999
TOTAL CHARGES	**$14,671,367**	**$12,476,114**	**$8,064,689**	**$7,658,213**	**$9,527,261**
Mean charge per patient (median)	17,020 (10,778)	17,232 (11,132)	16,872 (9,767)	18,062 (10,109)	22,576 (11,792)
Mean charge per admission† (median) Range	10,631 (7,217) 337-79,306	10,830 (7,619) 653-181,731	11,472 (7,742) 1,341-99,114	11,782 (7,761) 1,109-82,330	14,980 (9,053) 1,166-340,267
Mean charge per day†† (median)	1,807 (1,637)	1,805 (1,686)	1,969 (1,775)	2,070 (1,914)	2,315 (2,043)
Mean charge per PCP admission‡ (median)	12,145 (8,671)	12,685 (9,066)	15,608 (9,938)	15,585 (10,745)	19,126 (10,797)
Mean charge per ER admission‡‡ (median)	11,284 (7,577)	11,371 (8,006)	11,093 (7,665)	12,476 (7,915)	17,047 (9,625)

[1] Admissions resulting in death are excluded from all charge analyses.

† 1995-1999 trend significant, p< 0.0001; 1998-1999 trend significant, p= 0.006
†† 1995-1999 trend significant, p< 0.0001; 1998-1999 trend significant, p< 0.0001
‡ 1995-1999 trend significant, p= 0.004
‡‡ 1995-1999 trend significant, p= 0.004; 1998-1999 trend significant, p= 0.02

Table 3. Payment Source for Hospitalizations Among Persons with HIV Infection, Washington State, 1995-1999

	1995	1996	1997	1998	1999
TOTAL ADMISSIONS	1,524	1,246	764	698	674
Medicare†	20.2%	24.3%	26.0%	30.5%	33.4%
Medicaid†	25.3	26.6	32.1	33.1	31.5
Health maintenance organization†	13.3	14.0	10.5	6.7	5.5
Commercial insurance††	18.8	12.0	8.4	7.2	11.7
Self pay‡	5.4	6.0	9.2	8.7	7.1
Health care services contractor†	16.3	16.5	13.6	13.0	10.1
Other	0.6	0.6	0.1	0.7	1.0

† 1995-1999 trend significant, p< 0.0001
†† 1995-1999 trend significant, p< 0.0001; 1998-1999 trend significant, p= 0.006
‡ 1995-1999 trend significant, p= 0.004

of unequal and inferior access to care have been well documented elsewhere.[13]

CHARS payment source information is collected from patients at admission and may not always reflect the actual payment source responsible for the inpatient stay, which is determined upon or after discharge. General trends previously identified[14] that demonstrate that federally-funded programs bear a significantly increasing share of the financial burden of HIV inpatient care are supported by our findings. Medicaid and Medicare are the primary payer source for nearly two-thirds of hospital expenses in 1999, an increase of 41% over the federally-funded portion noted for 1995.

The findings also suggest that initial gains realized with widespread use of HAART, in terms of reduction in total expenditures for inpatient care, may not be sustainable. Total charges increased 24% between 1998 and 1999 in contrast to the reductions noted for 1995-1998. This may be due, in part, to increased pharmacy costs during hospitalization among persons who are experiencing treatment failure or are initiating salvage therapies. Additional research is needed to fully explain the increase in inflation-adjusted costs observed.

These trends, considered together, may have serious implications for future financing of HIV care in Washington State given the projected instability in long-term federal support available for Medicare and Medicaid. These issues continue to warrant ongoing monitoring and consideration by health and policy planners in Washington State.

❑ *Contributed by Todd E. Rime MA, Mark Stenger MA, and Jo Hoffman MD*

[1]Frederick, M, Lafferty, W, Cost of Care for HIV and AIDS in Washington State, 1988 and 1989, **HIV/AIDS Quarterly Epidemiology Report,** 2nd Quarter, 1992.

[2]Ryland, L.M., Shields, A., Charges and Utilization of AIDS Inpatient Care in Washington State, 1993-1994, **HIV/AIDS Quarterly Epidemiology Report**, 4th Quarter, 1995.

[3]Ryland, L.M., Rime, T., Shields, A., Utilization of AIDS Inpatient Care in Washington State, 1995-1996, **HIV/AIDS Quarterly Epidemiology Report**, 3rd Quarter, 1998.

[4]DRGs (Diagnosis Related Groups) are a patient classification system commonly used to define different types of inpatients by combining similar diagnoses and treatments to form a manageable, clinically coherent set of patient classes. These classes relate specifically to the resource demands and associated costs experienced by the hospital. DRGs used to select records for analysis included 488, 489, and 490.

[5]International Statistical Classification of Diseases and Related Health Problems-9 (ICD-9).

[6]In 1995, 25 hospital admissions had missing values for total charges; 1997, 7 were missing; and 1998, 5 were missing and excluded from charge analyses.

[7]In 1995, 124; 1996, 94; 1997, 55; 1998, 46; and in 1999, 36 admissions resulted in the death of the patient, and were excluded from change analyses.

[8]Fleishman, John A., Vincent Mor, and Linda L. Laliberte. Longitudinal Patterns of Medical Service Use and Costs among People with AIDS. **Health Services Research** 1995 30:3.

[9]Federal Bureau of Labor Statistics, Consumer Price Index for Medical Services, U.S. 1991-2001 (base period 1982-1984).

[10]Washington State Department of Health, Infectious Disease & Reproductive Health, Assessment Unit, AIDS Surveillance Program.

[11]Palella, FL Jr, et al, Declining Morbidity and Mortality Among Patients with Advanced Human Immunodeficiency Virus Infection. HIV Outpatient Study Investigators., **N Engl J Med** 1998;338:853-60.

[12]Torres, RA, Baar, M, Impact of Combination Therapy for HIV Infection on Inpatient Census. **N Engl J Med** 1997;336:1531-2.

[13]Bozzette, S, et al., Expenditures for the Care of HIV-Infected Patients in the Era of Highly Active Antiretroviral Therapy, **N Engl J Med** 2001;344:817-23.

[14]Moore, R, HIV Therapy and Prevention: Economics and Cost Effectiveness, **The Hopkins Report**, 1998: 2-11.

HIV Incidence among Seattle-King County MSM May Be on the Rise

Three estimates of HIV seroincidence among Seattle-area men who have sex with men (MSM) showed corresponding elevations for the periods 1999-00 and 1998-99. Blinded serum samples from two sources were tested using the serologic testing algorithm to estimate HIV seroincidence (STARHS). STARHS uses a less-sensitive version of the standard enzyme-linked immunoassay for HIV antibody to distinguish recent from longer-standing HIV infections. The proportion of recent infections detected by STARHS among persons presenting for HIV testing is used to estimate the incidence of infection among that testing population.

STARHS testing on double-blinded stored serum samples from the publicly-funded HIV testing sites between 1997-99 detected 68 incident cases of HIV infection among MSM (including MSM who reported injecting drugs). Annual seroincidence based on STARHS for MSM tested at publicly-funded sites in King County was estimated to be 2.1 new infections per 100 uninfected men in 1997 (95% CI 1.3-3.0), 2.3 new infections per 100 uninfected men in 1999 (95% CI 1.4-3.3), and 2.3 new infections per 100 uninfected men in 1998 (95% CI 1.4-3.4). A preliminary analysis of these data was published previously.[1,2] These estimates have been updated to reflect advances in the estimation of seroincidence using STARHS.[3]

Estimates from a blinded study of HIV seroincidence among MSM presenting at the Harborview STD Clinic 1990-1999 have also been previously reported.[4] Those estimates show that annual HIV incidence among MSM from whom blood samples were taken at the STD Clinic decreased steadily between 1990-94, then increased, from 0.9 new infections per 100 uninfected men in 1994-95 (95% CI 0.0-5.3) to 1.5 new infections per 100 uninfected men in 1996-97 (95% CI 0.2-5.4) to 2.9 new infections per 100 uninfected men in 1998-99 (95% CI 0.9-6.5). Sera from men who requested testing for HIV antibodies between 1997-99 were included in the analysis of seroincidence estimate for all publicly-funded sites. The blinded analysis of seroincidence among MSM presenting at the Harborview STD clinic includes men who did not request HIV testing but had blood drawn for other reasons such as syphilis serology. Results from a similar analysis were reported by the San Francisco Department of Public Health, which showed HIV seroincidence among MSM attending their public STD clinic to be stable between 1989 and 1998.[5]

A very different type of analysis was used to examine the seroincidence among MSM who present for testing at publicly-funded sites in King County. Among men who initially tested seronegative and subsequently retested, the number of new HIV infections per 100 person-years was found to be slightly elevated for the period 1999-00. Point estimates for HIV seroincidence using this method were consistently between 1.2 and 1.4 new infections per year for the period 1991-98 but 2.0 new infections per 100 person-years in 1999-00. Use of this method has been reported elsewhere.[6]

Taken separately, none of these analyses to estimate seroincidence is statistically significant. Taken together, however, it is notable that a slight increase in seroincidence is suggested using two very different methods of calculating incidence among three overlapping but non-identical populations.

❑ *Contributed by Edward White MPH*

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[1]White T, Goldbaum G, Ferrel F. HIV Seroincidence among Seattle-area Men Who Have Sex with Men--a preliminary estimate using a new HIV antibody testing technology. **HIV/AIDS Quarterly Epidemiology Report,** 3rd Qtr. 1999.

[2]White E. Incidence of HIV among MSM and MSM Who Inject Drugs is Far Greater than among other Populations in King County. **HIV/AIDS Epidemiology Report,** 2nd Half 2000.

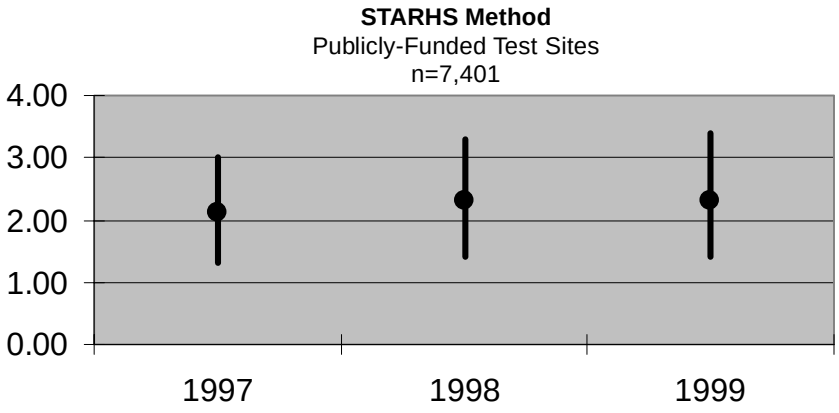
[3]CDC, personal communication, May 2000

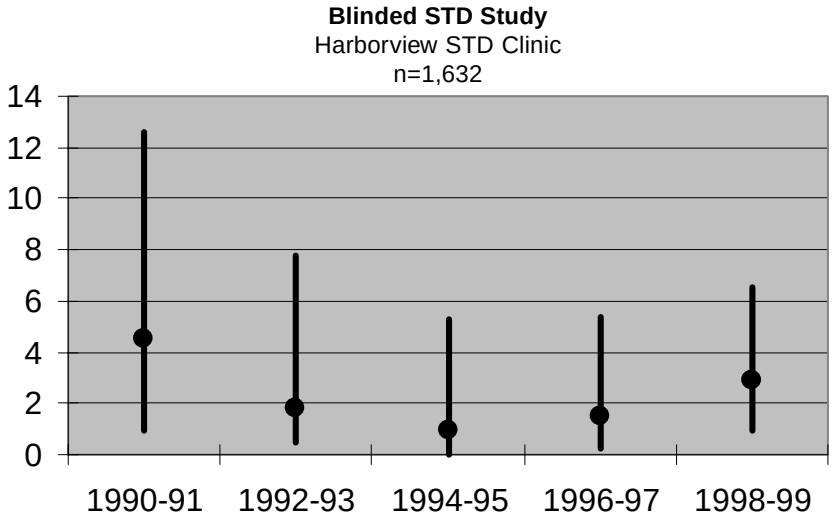
[4]Thiede H, White T. HIV Prevalence, Incidence and Risk Behaviors Among Seattle-King County STD Clinic Patients, 1988-1999. **HIV/AIDS Epidemiology Report,** 1st Half 2000.

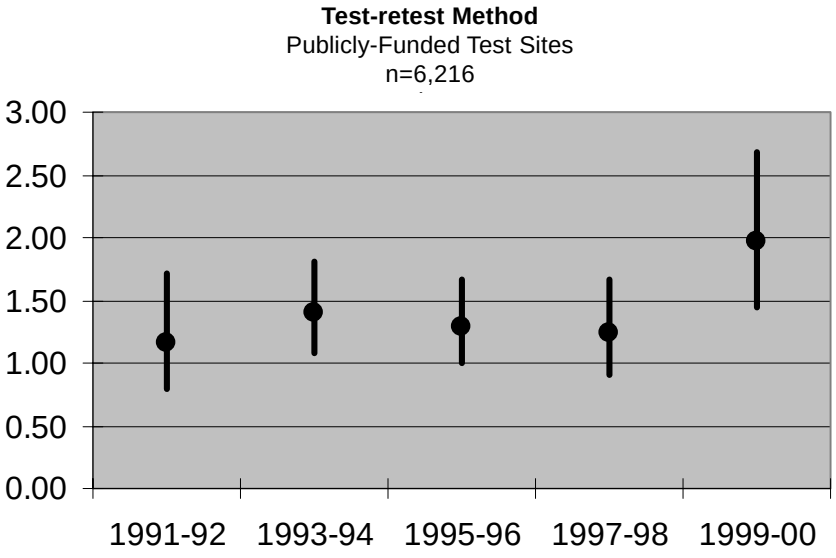
[5]Schwarcz S, Kellogg T, et al. Differences in the temporal trends of HIV seroincidence and seroprevalence among sexually transmitted disease clinic patients, 1989-1998: Application of the Serologic Testing Algorithm for Recent HIV Seroconversion. **Am J Epidemiol** 2001;153: 925-34.

[6]McFarland W, Kellogg TA, Dilley J, Katz MH. Estimation of human immunodeficiency virus (HIV) seroincidence among repeat anonymous testers in San Francisco. **Am J Epidemiol** 1997 Oct 15;146(8):662-4.

Estimations of HIV Incidence* in Seattle-King County
Men who have Sex with Men (MSM) by 3 methods







*Number of new infections per 100 uninfected MSM (point estimate) and 95% confidence interval (bar)

HIV Counseling and Testing Patterns and Experiences Among 23-29 year old Seattle-area YMS Participants

The Young Men's Survey (YMS) was a Center for Disease Control and Prevention (CDC) funded survey of men who have sex with men (MSM) ages 15-29. The study was conducted in two phases from 1994-2000 in Seattle, Los Angeles, Baltimore, Dallas, Miami, New York City, and the San Francisco Bay area (Phase 1 only). The purpose of this study was to better understand the prevalence of HIV and sexual and drug-use behaviors among MSM. An overview of results from the Seattle-area study was published in an earlier version of this publication.[1] This report describes HIV counseling and testing patterns and experiences among 23 to 29 year old MSM who participated in the Phase 2 Seattle-area survey.

Methods

YMS Phase 2 was an anonymous, venue-based, HIV prevalence and risk behavior sample survey of MSM aged 23-29. Sampling venues were identified through a community assessment process and included street locations, bars, dance clubs, parks, beaches, and other locations or events that are popular with younger MSM. Venues that yielded 7 or more eligible persons in a 4-hour period were included in a sampling frame from which 12-14 venues were randomly chosen each month to construct a sampling calendar. During sampling events YMS interviewers approached potential participants and asked them about their age and county of residence to determine eligibility. Those who were between 23 and 29 years old and resided in King County were invited to participate. Participants could either complete the study at the time of recruitment (inside a specially equipped recreational vehicle parked nearby) or make an appointment at the YMS office on Capitol Hill.

After obtaining informed consent, study interviewers administered a standardized questionnaire that included questions on sociodemographic characteristics, sexual and drug use behaviors, and health care and prevention services history. Following the interview, pre-test counseling for HIV, hepatitis A and B, syphilis, and other sexually transmitted diseases (STDs) were conducted and a blood sample was drawn. All participants received a monetary incentive and were offered free condoms and risk-reduction information. A results and post-test counseling appointment was also scheduled. Referrals for hepatitis A and B vaccinations and other health and social services were provided as needed.

Results

Between December 1998 and February 2000 the YMS team conducted 197 sampling events at 27 different community venues and intercepted 2,843 men of whom 934 (36%) were eligible for the study. A total of 506 (54%) agreed to participate, 92% (468) of whom were MSM. After exclusion of data from 2 duplicate participants and one participant whose responses were judged to be unreliable, the final sample available for analysis was 465 MSM.

Regular Health Care and HIV Assessment Services: Sixty-nine percent of participants reported having a regular source of health care. Among participants with regular health care, 75% had a private physician, 9% utilized a community or neighborhood health center, 7% a hospital or urgent care, and 4% went to a health department clinic. Those without a usual source of health care (31%) cited being rarely sick, health care being too expensive, and just moving to the area as the main reasons for not having a regular health care provider.

All participants who reported having a usual source of healthcare were asked what types of HIV risk assessment services they had received from their regular provider. The most common type was being asked if they ever had sex with a man (43%), if they ever injected drugs (37%), how often they used a condom (33%), discussing whether they should be tested for HIV (41%), ways to reduce HIV risk behavior (30%), and being told how HIV causes AIDS and how it is spread (29%). Participants felt their health care provider could have improved their HIV

risk screening services by doing a better job of finding out about their sexual and drug use behaviors (31%), telling them more about HIV or advances in HIV therapy (29%), and testing them for HIV or referring them to HIV testing (24%). Overall, 55% of participants reported satisfaction with the HIV risk behavior assessment they received, 11% were dissatisfied, and 34% were neutral. Fifteen percent of participants did not receive any HIV assessment from their provider.

HIV Testing Patterns: Ninety-one percent (423) of Phase 2 participants reported having previously been tested for HIV. Among these participants, two-thirds reported having 3 or more prior HIV tests (Table 1). Approximately one-third had been tested by age 20. Nearly two-thirds of the participants had been tested in the last year. Private health care settings were the most common site of last test (20%), followed by public health clinics (17%). One-third of participants reported that their last test was anonymous (the HIV counselor did not know their name and they were given an identification number to obtain their result). Three percent of participants used a home test collection kit for their last test. One-third of participants who reported a private provider as their regular source of health care also had their last HIV test at a private site, and 50% of participants who reported a health department as their normal source of health care also tested there.

Sixty-three percent of those who had not tested in the last year and 60% of those who had never tested reported having a regular source of health care (data not shown). Age, educational level, employment status, or income was not related to how recently participants had tested. There were not enough minority participants to look at whether race played a role in testing history.

Reasons for testing are listed in Table 1. Sex with a new partner, engaging in unprotected oral or anal sex, and feeling it was time for a regular test were the main reasons for seeking testing. Respondents who had never tested (9%) reported feeling that they were at low-risk for HIV (67%) and being afraid of results (43%) as the main reasons (data not shown).

Table 2 compares testing history by age and different sexual behaviors. A higher percentage of participants who had unprotected insertive or receptive anal sex, sex with a new or non-steady partner, or sex while high on alcohol or drugs had tested in the last 6 months compared to those who did not engage in these behaviors.

Table 1. HIV testing history among Seattle-area Phase 2 YMS participants with prior HIV testing

	Total N = 423 %
Months since most recent test*	
<6 months	40.3
6-11 months	25.2
12+ months	34.5
Number of tests	
1	17.8
2	15.0
3+	67.2
Age at first test	
<18	9.9
18-20	29.0
21-23	38.1
24-26	18.5
27-29	4.5
Reason for most recent test*	
Sex with a new partner	28.1
Unprotected oral sex	26.5
Time for a regular test	23.6
Just to find out	21.0
Unprotected anal sex	17.7
Request of sex partner	9.7
Site of most recent test*	
Private Provider	20.3
Health Department Clinic	17.0
Community Clinic	9.2
Research Study	8.0
Home test	3.1
Hospital	3.3
Other	5.8
Not tested within the last year	33.3

*Test prior to YMS test

HIV Counseling Experiences: Sixty-nine percent of participants who tested in the last year (question only asked of people tested in the last year) received some type of HIV counsel-

Table 2. Comparison of recent testers, infrequent testers, and never testers

		Time since most recent test			
	Total N = 465	< 6 months N = 171 Row %	6-12 months N = 105 Row %	12+ months N= 147 Row %	Never Tested N = 42 Row %
Age					
23-26 years	270	36.9	23.6	30.0	9.5
27-29 years	195	36.2	21.8	33.3	9.0
Type of sexual behavior last 6 months					
Unprotected insertive anal sex	191	41.9	17.8	33.5	6.8
Unprotected receptive anal sex	168	43.5	21.4	28.6	6.5
Anal or oral sex with non-steady partner	272	42.3	21.3	26.8	9.6
Anal or oral sex with a new partner	323	41.2	22.9	26.6	9.3
Sex while high on alcohol or drugs	332	39.4	21.7	29.2	9.6
Number of male sex partners last 6 months					
0	36	20.6	20.6	50.0	8.8
1	127	23.8	31.1	34.4	10.7
2–4	169	40.0	21.2	29.1	9.7
5+	133	48.5	17.7	26.2	7.7

Table 3. HIV counseling and testing experiences by testing site

	Total N = 276* %	Health Department N = 71 %	Private Physician N = 85 %	P Value
Topics covered at counseling				
Explain how HIV causes AIDS and how it is passed	50.0	66.2	30.6	<0.01
Ask about participant's risky sex practices	62.0	78.9	38.8	<0.01
Ask about participant's risky drug use practices	54.7	70.4	31.8	<0.01
Ask about condom use	54.7	71.8	30.6	<0.01
Discuss how to reduce risk behaviors	52.2	63.4	31.8	<0.01
Explain the possible need to be re-tested for HIV	53.3	69.0	31.8	<0.01
Discuss telling test results to partner	38.4	52.1	20.0	<0.01
Effect of counseling on participant's sexual behaviors				
Ask about partners HIV status more frequently	21.4	26.1	17.1	NS
Decrease number of sex partners	28.3	30.4	22.0	NS
Decrease frequency of unprotected anal sex	25.0	26.1	19.5	NS
Satisfaction with HIV counseling and testing				
Dissatisfied	1.1	2.8	1.2	NS
Neutral	6.9	4.2	8.2	NS
Satisfied	61.2	77.5	40.0	<0.01
Not counseled	30.8	15.6	50.6	<0.01

*Number of people tested in year prior to YMS interview

ing as part of their most recent HIV test either before they were tested or after they received their test result. Half of the respondents felt that there was no way to improve the counseling they received. A higher percentage of participants who were satisfied with counseling had also tested more recently. Table 3 looks at what counseling topics were covered at participants' most recent test, effect of counseling on sexual behaviors, and participants' satisfaction with counseling at health department clinics versus private settings. Eighty-four percent of participants who tested at a health department site reported receiving some form of counseling compared to 49% who reported receiving testing from a private provider. Participants reported that they received more comprehensive counseling at public health

versus private sites and a higher proportion was satisfied with the HIV counseling (78% vs. 40%) received at public health sites. Those who received counseling from a public health site more frequently reported that the counseling had a positive effect on changing certain high-risk sexual behaviors. Two of the 9 known positives who had tested positive at their last test were counseled around telling their partner about their HIV status. Five of the known positives were tested over one year from the interview date and subsequently were not asked about their last testing experience.

HIV Status: Twenty-two of the YMS participants (4%) tested positive for HIV. Of those who tested positive, 14 (64%) were already aware of their HIV status. Six of the 8 unknown positives had not tested for HIV in the 6 months prior to the YMS interview.

Comments

In YMS Phase 2, 36% of the HIV positive participants were not aware of their HIV status. Recent findings from the 1999 and 2000 King County STD Clinic Unlinked HIV Seroprevalence Survey found that 35% of participants appeared to be unaware of their HIV positive status.[2] This could be due in part to patients not disclosing their status to the STD Clinic providers. It has been estimated that 200,000 people in the United States do not know they are infected with HIV.[3] In order to increase the number of people who are aware of their HIV status, barriers to frequent and regular HIV counseling and testing need to be examined.

Overall, 91% of YMS participants reported a prior HIV test. A 1992 local study that used a telephone survey of selected Seattle neighborhood households found 82% of MSM had tested for HIV.[4] It is encouraging that the men in YMS Phase 2 who reported risky sexual behaviors and multiple partners were more likely to have recently tested. However, it is important to note that there were still a number of participants with high-risk sexual behaviors who had not tested in the last year. For example, one third of participants with 5 or more sexual partners had not tested in the last year. This is not solely a result of not having access to healthcare; 63% of those who had not tested in the last year and 60% of those who had never tested reported having a regular source of health care. Unfortunately, participants whose last test was over one year before the YMS interview were not asked questions about their last test so we do not know anything about their testing experiences.

In an effort to make HIV services more accessible and available, the CDC has recently revised and expanded their HIV counseling and testing guidelines. The guidelines now provide recommendations for public and private providers of voluntary HIV counseling, testing, and referral services.[5] This focus on both public and private providers is an important shift because many primary health-care providers do not routinely ask clients about HIV or STD risks. Many YMS participants felt their regular providers could have improved their assessment services by finding out more about their risk behaviors, telling them more about HIV or advances in HIV therapy, and testing them for HIV or referring them to HIV testing. Talking with patients about their lifestyle, including sexual and drug use practices, may open opportunities for discussing safer behaviors and the importance of HIV testing. One study of self-identified MSM ages 13 to 21 found that a predictor of testing was ever having discussed same-sex feelings or experiences with a physician or counselor.[6]

The Washington State Department of Health recently surveyed the state's adult population on HIV/AIDS knowledge, attitudes and beliefs.[7] The survey found that about 27% of the adults who tested also received counseling with the results of their last test. Since YMS participants are higher risk than the general population, it is encouraging that 69% had received counseling with their last test.

In light of recent increases in rates of STDs among MSM, many of whom are HIV positive, and concern that HIV infection rates maybe on the rise,[8,9] Public Health-Seattle & King County (PHSKC) recently issued revised HIV and STD screening recommendations to primary health care providers throughout the Seattle area. PHSKC recommends that providers routinely determine whether male clients are sexually active with men, screen MSM patients for HIV and STDs once a year, and for MSM who acknowledge sex with anonymous or multiple partners, test for HIV every 3-6 months.

There is a need to work with providers to help them improve their HIV risk assessment and counseling skills. A recent Seattle-area study looked at an intervention to help HMO provid-

ers enhance their HIV and STD assessment and counseling.[10] After the intervention, providers had better attitudes and beliefs about performing HIV screening and counseling. Patients surveyed reported an increased recall of providers discussing HIV and STD prevention and asking questions about sexual risk behaviors.

Public health sites appear to be providing more thorough HIV counseling than private practice sites. YMS participants received more comprehensive counseling at public health versus private sites and a higher proportion was satisfied with the HIV counseling received at the public health sites. Since 75% of the YMS participants reported a private provider as their regular source of healthcare, it is important that providers in these settings more carefully assess HIV risk factors and either offer more comprehensive HIV counseling and testing or refer the patient to public health for these services. Private providers must also be aware that some clients may prefer anonymous testing and make referrals for this type of testing as well.

In addition to where clients receive HIV counseling and testing, it is important to consider the type of counseling people receive. PHSKC and the CDC both recommend that providers use client-centered counseling. Client-centered counseling is an interactive risk-reduction counseling model in which the counselor helps the client recognize personal HIV risk behaviors, and commit to a single, realistic, achievable behavior change that could reduce the client's HIV risk.[11] Project RESPECT, a CDC multi-site randomized trial that evaluated the efficacy of HIV prevention counseling in changing behavior and reducing STD rates, showed that interactive, client-centered counseling was more likely to increase condom use and prevent new STDs. The study also showed that interactive counseling had the greatest disease reduction the first 6 months following the intervention, yet another reason why MSM should receive counseling and testing on a regular and frequent basis.[12]

Some of the YMS participants felt the HIV counseling they received had a direct effect on reducing some risky sexual behaviors. The number of known HIV positive participants in Phase 2 was not large enough to examine whether they believed the HIV counseling and testing they received along with the positive test result affected their sexual behavior, but we hope this will be examined in the national data. Other studies have shown that counseling and testing can reduce risky behavior among positives.[13]

Findings from YMS Phase 2 underscore the need to develop innovative ways to increase HIV testing acceptability and reach men with high-risk behavior who have not recently tested or who have never tested. Other studies have shown that people are more likely to get tested for HIV if oral fluid testing is offered.[14] Research also suggests that rapid HIV tests are more accepted among high-risk populations because they do not have to wait to obtain their result.[15]

In an effort to increase the number of people who are aware of their HIV positive status, it is important that all local health care providers feel comfortable with HIV screening and counseling, adopt the PHSKC and CDC HIV counseling and testing guidelines, consistently ask patients about HIV risk factors, recommend regular HIV counseling and testing, and offer alternative testing methods.

For more information please contact Elizabeth Tesh at (elizabeth.tesh@metrokc.gov) or 206-296-8666 or Hanne Thiede at (hanne.thiede @metrokc.gov) or 206-296-8663.

❑ *Contributed by Elizabeth Tesh MPH and Hanne Thiede DVM, MPH*

We would like to thank all the YMS participants who made this survey possible.

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[1]Thiede H, Perdue T, et al. The Seattle Area Young Men's Survey: Phase 2 results. **HIV/AIDS Epidemiology Report** 1ST Half 2000.

[2]Thiede H, unpublished data.

[3]Sweeney P, Wortley PM, Karon JM, Fleming PL. A minimum estimate of the number of living HIV infected persons confidentially tested in the United States. Int Conf AIDS Jul 9-14; 13:abstract no. MoPeC2453.

[4]Campsmith ML, Goldbaum GM, Brackbill RM, Tollestrup K, Wood RW, Weybright JE. HIV testing among men who have sex with men—results of a telephone survey. **Prev Med** 1997 Nov-Dec;26(6):839-44.

[5]CDC Revised Guidelines for HIV Counseling, Testing, and Referral October 17, 2000.

[6]Povinelli M, Remafedi G, Tao G. Trends and predictors of human immunodeficiency virus antibody testing by homosexual and bisexual adolescent males, 1989-1994. **Arch Pediatr Adolesc Med** 1996 Jan;150(1):33-8.

[7]Rime TE, Courogen M, Peppert J. Washington State HIV/AIDS knowledge, attitudes, and beliefs survey 1995-2000. Washington State Department of HIV/AIDS Prevention and Education Report; June 15, 2001.

[8]Williams LA, Klausner JD, Whittington Wl, et al. Elimination and reintroduction of primary and secondary syphilis. **Am J Public Health** 1999;89:1093-97.

[9]Resurgent bacterial sexually transmitted diseases among men who have sex with men-King County, Washington, 1997-1999. **MMWR** 1999;48:773-777.

[10]Dodge T, BlueSpruce J, Grtohaus L et al. Enhancing Primary Care HIV Prevention A comprehensive Clinical Intervention, **Am J Prev Med** 2001; 20 (3): 177-193.

[11]CDC Revised Guidelines for HIV Counseling, Testing, and Referral October 17, 2000.

[12]Kamb M, Fishbein M, Douglas J, et al. Efficacy of Risk-Reduction Counseling to Prevent Human Immunodeficency Virus and Sexually Transmitted Disease, **JAMA** 1998;280 :1161-7.

[13]Weinhardt LS, Carey MP, Johnson BT, et al. Effects of HIV counseling and testing on sexual behavior: a meta-analytic review of published research **Am J Public Health** 1999;89 (9): 1397-1405.

[14]Spielberg F, Goldbaum G, Branson B, et al. Acceptance of alternate HIV counseling and testing strategies [abstract 420]. 1999 National HIV Prevention Conference, Atlanta; August 31-September 2, 1999.

[15]Ibid.

HIV/AIDS program
Public Health Seattle & King County

HAP Report: Expanded Syringe Access Campaign

Injection drug users (IDU) have three ways to obtain new, sterile syringes: 1) needle exchange, 2) physician prescription, and 3) pharmacy sales. Studies at Public Health-Seattle & King County show that, despite large-scale needle exchange operations at 7 sites in King County, many IDU continue to share syringes. This is understandable. Needle exchange programs are limited to a few sites and hours and are sometimes under police watch, factors which can present barriers for IDU attempting to access new, sterile injection equipment. Physician prescribing has only recently been recommended and clarified to be legal in Washington State.[1] Finally, many pharmacists are not yet sure of the legality of their selling to users without prescriptions. These factors can present barriers for IDU attempting to access sterile syringes.

Health Risks

• 80-90% of King County IDU are already infected with hepatitis C virus (HCV), which countywide is now the main contributor to liver problems requiring transplants. HCV is so easily transmitted that many IDU become infected within the first few months after beginning injection drug use.

• 70% of King County IDU have evidence of exposure to hepatitis B (HBV), and some are chronically infected, adding to liver disease and transplantation needs.

• Over 50% of new HIV infections nationally are among IDU. HIV is fortunately less prevalent in King County IDU (about 3% infected). Given the high prevalence of HCV, HIV's potential for rapid spread, however, continues to be great.

• There are other serious and socially expensive complications stemming from the use of non-sterile injection equipment, including bacterial endocarditis.

Legal Issues

The Project on Harm Reduction in the Health Care System with the Beasley School of Law at Temple University investigated the prescribing and dispensing of sterile injection equipment as one strategy for reducing harm to injection drug users who cannot or will not enter drug treatment. The Project issued a memorandum that assessed the legality, under Washington State law, of physician prescription and pharmacy sale of injection equipment to patients who are known to be injecting illegal drugs. The conclusions from the Project's legal analysis include:

• A prescription for sterile injection equipment to an IDU patient is consistent with the standard for a valid prescription under the Medical Practice Act and the prescription provision of the Controlled Substances Act.

• Writing a prescription for a syringe does not violate any Washington State law. A physician may therefore legally prescribe injection equipment to an IDU patient.

• Dispensing sterile injection equipment to an IDU does not violate Washington State's paraphernalia law where the pharmacist does not and reasonably should not know that the patient intends to use the equipment to illegally inject drugs.

• Dispensing sterile injection equipment to known IDU as a means of preventing the trans-

mission of HIV probably does not violate Washington State law.

In the fall of 1999, after reviewing information from the Centers for Disease Control and Prevention, the WA State Board of Pharmacy determined that pharmacies may legally sell or distribute sterile syringes to individuals for the purpose of reducing the transmission of blood-borne diseases. The Board further stated that *"(s)uch distribution shall be performed through public health and community-based HIV prevention programs."* (adapted from *WA State Board of Pharmacy,* Vol.21, No.2:1.)

Campaign

Based on this information and the new interpretation of the rules for selling sterile syringes, Public Health - Seattle & King County began collaborating in March 2001 with King County retail pharmacists to increase access to new, sterile syringes. The purpose is to prevent the transmission of blood-borne infections (particularly HIV, HCV, and HBV) and other medical complications of the use of unsterile equipment such as bacterial endocarditis among IDU. Seven retail pharmacies within King County have already become Public Health partners in these efforts. Locations range from Auburn to North Seattle.

Pharmacies are asked to voluntarily participate in selling sterile injection equipment. A memorandum of understanding is signed by both the pharmacy representative and the Public Health Director. This understanding recognizes the pharmacy as a "community partner" of Public Health to provide access to sterile syringes to protect individual and public health.

With this understanding, Public Health agrees to provide:

• Written materials to each pharmacy for free distribution to customers.

• Free anonymous or confidential HIV and hepatitis counseling and testing at nearby sites.

• Free training for pharmacy staff on the prevention of HIV, hepatitis and other blood-borne infections.

Pharmacies agree to:

• Offer retail sales of sterile injection equipment to persons who use drugs by injection.

• Provide verbal and written information to customers concerning:

- The safe, legal, and free disposal of used needles/syringes.
- The prevention of disease, including HIV, hepatitis, and other blood-borne infections.
- The value and availability of drug/alcohol treatment.
- The value and availability of HIV counseling and testing.
- Request training, as necessary, from Public Health on the prevention of HIV, hepatitis and other blood-borne infections.

Other access in addition to the retail pharmacy partners:

• There are 7 Needle Exchange sites within King County either operated by or contracted through Public Health. These all provide a one-for-one exchange with no volume limit. The downtown Seattle needle exchange offers a medical clinic, HIV/STD testing as well as hepatitis screening and vaccination, and methadone vouchers for treatment.

•All 3 Public Health pharmacies now sell syringes to anyone requesting to purchase. No prescription is required, and individuals do not need to be registered Public Health patients.

•All Public Health clinics now accept used syringes for disposal.

Individuals can locate the nearest Needle Exchange, Public Health clinic or pharmacy or participating retail pharmacy nearest them by calling the HIV/STD Hotline at (206) 205-7837 or 1-800-678-1595. Through these efforts, Public Health's goals are to prevent new bloodborne infections, reduce the negative consequences of injection drug use, facilitate entry into drug treatment, and remove used syringes from circulation and ensure their safe disposal. Please assist Public Health to achieve these goals. For more information, contact Robert Marks, campaign coordinator, at (206) 205-5510 or robert.marks@metrokc.gov. This is an excellent opportunity for community pharmacies to continue to demonstrate their commitment to improving health care.

❑ *Contributed by Robert Marks MEd, Holly Hagan PhD, and Bob Wood MD*

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[1]Burris S, et al. Physician prescribing of sterile injection equipment to prevent HIV infection: A time for action. **Ann Int Med** 2000; 133:218-26.

Adult AIDS Clinical Trials Unit Report: Evolving techniques in antiretroviral therapy

Management of antiretroviral therapy continues to evolve as new information becomes available. Two recent trends in the use of antiretroviral therapy in 2001 have been delaying the initiation of anti-HIV treatment and use of protease inhibitor (PI)-sparing regimens.

When-to-Start

The variability in treatment guidelines from year to year stems from a lack of definitive information on the optimum time to start anti-HIV treatment. Treatment guidelines from 2001 suggest delaying use of antiretroviral therapy in adults and adolescents with chronic HIV infection until CD4 cell counts are less than 350 cells/mm^3. This contrasts with US guidelines from the year 2000, which suggested starting treatment at a higher CD4 cell level. The scientific basis for delaying the use of anti-HIV treatment includes data about the efficacy of treatment, as well as a growing appreciation of toxicities associated with antiretroviral therapy.

Multiple studies, including ones done at the UW ACTU, have demonstrated that clinical improvement, as measured by decreases in opportunistic infections and longer survival, can occur in patients starting anti-HIV therapy at very low CD4+ cells and high viral loads. Increasing recognition of metabolic toxicities and body shape changes, as well as other toxicities, have tempered enthusiasm about use of therapy in patients whose short-term prognosis without anti-HIV treatment is good.

Long-term Outcomes with Antiretroviral Therapy

The Adult AIDS Clinical Trials Group (ACTG) has a number of initiatives for investigating the long-term outcomes associated with antiretroviral therapy. One of these strategies is to follow participants in anti-HIV treatment studies for many years. This will allow assessment of the long-term clinical, immunologic, and virological impact of different treatments. One ongoing study which has over 1,600 enrollees (33 locally) of a planned 2,800 is large enough to investigate whether there are differences in treatment outcomes between men and women, between persons starting therapy at higher and lower CD4 cells, and between different anti-HIV regimens/strategies.

What-to-Start

The question about the optimal regimen or regimens to use when starting antiretroviral therapy is also a complex one. While combination regimens are of benefit for many patients, therapies do fail in a significant proportion of patients. Many of the reasons for treatment failure are recognized – complex regimens with multiple pills, side-effects and fear of side-effects that may lead to poor adherence, and adverse drug interactions that may lead to inadequate drug levels. All of these can contribute to suboptimal viral suppression and drug-resistant HIV strains. Developing simpler but effective regimens is an important research goal.

The demonstrated efficacy, decreased pill burden and favorable side-effect profile of many PI-sparing regimens have lead to widespread use of such regimens. However, few such regimens have been compared head-to-head. The Adult ACTG is conducting a study that compares the effectiveness and safety of three PI-sparing regimens. This three-year study is will address several clinically important questions. These include 1) whether 3-drug PI-sparing regimens are sufficiently potent or whether the use of a 4-drug combination is more effective and 2) whether the combination of nucleoside reverse transciptase inhibitors (NRTIs) with a non-nucleoside RTI (NNRTI) is better than a regimen of three NRTIs. The specific initial regimens in this study are zidovudine/lamivudine/efavirenz versus zidovudine/lamivudine/abacavir versus

❑ *Submitted by Ann Collier MD*

zidovudine/ lamivudine/efavirenz/abacavir. Alternate regimens are available in the event of toxicity or virological failure with the first regimen.

Study Participants Sought

Participants are being sought for several Adult ACTU studies. Studies are enrolling both HIV+ and HIV- volunteers.

STUDIES FOR PERSONS WITHOUT HIV

Safety and drug levels of three antiretroviral drugs in HIV negative persons (ACTG 5043). Treatment with: efavirenz for 10 days; add amprenavir for 3 days; then add indinavir, nelfinavir, ritonavir, or saquinavir for 1 week. Main eligibility: on no other medications and within 20% of ideal body weight. Payment of $150 for each of 3 day-long visits, and $150 more at study end.

Carotid artery thickness as a predictor of cardiovascular risk (ACTG 5078). Ultrasound tests to measure artery thickness in HIV- and HIV+ participants. Main requirements: HIV-negative (**or** HIV+ on a protease inhibitor (PI) **or** HIV+ not on PI). $25 paid for each ultrasound test.

STUDIES FOR PERSONS WITH HIV

Antiretroviral Studies:

Initial treatment with a PI-sparing regimen (ACTG 5095). Subjects are randomly assigned to 3 or 4-drug PI-sparing regimens (with ZDV, 3TC plus ABC and/or EFV). Main eligibility: no prior antiretroviral treatment. Payment for some sub-studies.

Anti-HIV effects of structured treatment interruption (STI) and a vaccine (ACTG 5068). Enrollees on antiretroviral drugs have STIs, and either the ALVAC-HIV vCP1452 (canary pox) vaccine or a vaccine placebo. Main requirements: subject is on 1st antiretroviral regimen (unless switched because of side-effects), no prior use of abacavir. Payment for sub-studies (men only).

Resistance testing (ACTG 5076). Genotyping versus phenotyping for anti-HIV treatment planning. Main requirements: subject is planning to switch from their 2nd, 3rd, or 4th antiretroviral regimen and has had no prior resistance testing. Free resistance testing, and $10 for each clinic visit.

Studies of Complications of HIV:

Preventing cytomegalovirus (CMV) organ damage with valganciclovir (ACTG 5030). Main requirements: having antibodies to CMV, CD4 cells <100, and a viral load >400. Payment for some clinic visits.

Carotid artery thickness as a predictor of cardiovascular risk (ACTG 5078). Ultrasound tests to measure artery thickness in HIV- and HIV+ participants. Main requirements: HIV+ on a protease inhibitor (PI) **or** HIV+ not on PI (**or** HIV-negative). $25 paid for each ultrasound test.

Treatment for increased insulin (sugar hormone) and body fat levels (ACTG 5082). 16-week treatment with metformin or rosiglitizone or both or placebo drugs. All participants get both drugs 2nd half of study. Main eligibility: HIV+, increased blood insulin, increased body fat, and viral load <10,000. CT and DEXA scans at entry, and weeks 16 & 32. $25 paid for each CT and DEXA scan.

Treatment of HIV-associated dementia (ACTG 5090). Selegiline transdermal system (STS patch) versus patch placebo. All patients receive STS patch during 2nd half of study. Main eligibility: HIV dementia, on antiretroviral drugs for at least 8 weeks. $20 - $100 paid for some tests.

Effect of anti-HIV drugs on brain function and HIV in spinal fluid (ACTU 132). Study involves one or more lumbar punctures (spinal taps). Participants will be paid $100 - $150 for each of these procedures.

Screening tests, study drugs, and laboratory and clinical monitoring that are performed as part of our studies are free of charge for potential participants and study enrollees. **The unit does not assume the role of primary care provider for study participants, and coordinates care with each patient's primary care provider. Physicians, their staff, or potential enrollees can call Alyssa Spingola or Jeanne Conley at 731-3184 for additional information or appointments**.

ACTU Web Page:
http://depts.u.washington.edu/~actu

ACTU e-mail:
actu@u.washington.edu

HIV Prevention & Vaccine Trials Units Report: Establishment of the HIV Prevention Trials Unit and the HIV Vaccine Trials Unit in Seattle

In the fall of 1999, the National Institutes of Health (NIH) initiated a restructuring of their HIV prevention research programs, establishing two separate networks to streamline the research that was being conducted by the AIDS Vaccine Evaluation Group (AVEG) and the HIV Network for Prevention Trials (HIVNET). These two are the **HIV Vaccine Trials Network** (HVTN), structured to test promising HIV vaccine candidates in humans, and the **HIV Prevention Trials Network** (HPTN) which will test behavioral methods such as intensive counseling, barrier methods such as topical microbicides and other non- vaccine interventions.

In May 2000, Fred Hutchinson Cancer Research Center was awarded HIV Vaccine Trial Unit (HVTU) funding, under the direction of Dr. Julie McElrath. The University of Washington was awarded HIV Prevention Trials Unit (HPTU) funding, under the direction of Dr. Connie Celum. An essential element of both awards was the addition of a sub-site in Lima, Peru, under the direction of Dr. Jorge Sanchez, where research for both networks will be conducted. Current HVTU and HPTU studies are shown below.

University of Washington &
Fred Hutchinson Cancer Research Center

Seattle HVTU
(HIV Vaccine Trials Unit)

Protocol 203
Phase II HIV Vaccine

Protocol 501 (coming 2002)
Phase III HIV Vaccine

Merck 004
Phase I HIV-Positive Vaccine

Merck 008
Phase I HIV-Negative Vaccine

Multiply Exposed
HIV Exposed Seronegative

Seattle HPTU
(HIV Prevention Trials Unit)

Project Explore
Phase IIB Counseling Study

VaxGen
Phase III HIV Vaccine

Reality Condom Study
Condom Acceptability Study

VISION
HIV Vaccine Readiness

Microbicide Study
Gel Safety

Lima, Peru
HVTU & HPTU Site

As successors to the old AVEU and HIVNET sites in Seattle, research continues on the 13th floor of the Cabrini Medical Tower. The two units have combined their community education and recruitment teams to build on the streamlining initiated at the national level.

Studies

Enrollment is complete for HVTN Protocol 203, a Phase II vaccine trial of two investigational vaccine products in a combined regimen: a canarypox vaccine and a gp120 vaccine. Locally, fifty-two volunteers are being followed in this trial. We are also participating in two Merck & Co., Inc., Phase I protocols using an investigational gag DNA vaccine. Both of these studies are 26-month trials. One study is for adults living with HIV who are on HAART with CD4 counts over 500 and an undetectable viral load for at least 12 months. We have nine volunteers in that study and continue to recruit volunteers. The other Merck study is enrolling healthy HIV negative adults and combines the DNA vaccine with a vector boost. We have begun screening volunteers for this trial. Potential participants should call Jeffery Kiesling at (206) 667.2300.

HPTU continues to follow 135 men in the first ever Phase III HIV vaccine trial, which is testing the efficacy of the investigational product gp120. At the two-year mark, the Seattle site boasts a participant retention rate of 96%. In North America, 5,300 people are participating in this industry-sponsored trial, funded by the vaccine manufacturer, VaxGen. This trial will continue for another year.

HPTU was also awarded a Centers for Disease Control (CDC)-sponsored project which will attempt to measure the impact of vaccine trial participation on risk behavior. The Vision study is currently recruiting sexually active men who have sex with men who would be interested in enrolling in future HIV vaccine trials, in order to compare risk behavior to

currently enrolled Phase III vaccine trial participants. We are looking for sexually active, non-monogamous, HIV negative men who have sex with men who would be willing to participate in an HIV vaccine trial. Participants will not receive vaccine, but will be offered participation in upcoming vaccine trials. Potential participants should call (206) 521-5821.

Other on-going HPTU studies include a safety and acceptability study of the Reality condom for use by gay and bisexual men for anal intercourse. We have 45 male couples enrolled in this trial and should conclude follow-up by the end of summer 2001. We are half-way through follow-up in Project Explore, a 4-year study comparing two different HIV testing and counseling methods. We have 742 Seattle area men enrolled in this study and are now focusing on keeping our participant retention rates above 90%. In summer of 2001, we will begin a Phase I safety trial of two topical microbicides in 24 HIV-positive men.

The HVTU continues its research with people who are multiply exposed to HIV through sexual contacts but who remain seronegative. We also continue another study that follows people with HIV who are long term nonprogressors. We are also enrolling healthy, HIV negative mutually monogamous gay men to serve as control subjects for these studies. These studies complement our vaccine research by helping us to understand our immunology and reaction to the virus.

If you are interested in more information about our research or would like to schedule a presentation on HIV prevention research, please contact Dennis Torres at (206) 521-5812.

❑ *Contributed by Dennis I. Torres*

HIV Prevention & Vaccine Trials Units

http://www.hptn.org **http://www.hvtn.org**

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