hiv/aids

2nd Half '00

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-seventh 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 Easton 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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HEALTHY PEOPLE. HEALTHY COMMUNITIES.

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HIV/AIDS Epidemiology Report becomes semiannual

The HIV/AIDS Epidemiology Report has been published quarterly since 1986. For the years 2000 and 2001, however, the Report will be reduced to a semiannual schedule. A mid-year issue with data through June will be released in September and a year-end issue will be released in March. This change is necessitated by the greatly increased workload experienced by the co-publishers of this report, the Washington Department of Health (DOH) and Public Health-Seattle & King County (PH-SKC), as we implement and evaluate a comprehensive system of HIV surveillance. Expanded laboratory reporting of HIV antibody and viral load test results is being implemented and thousands of previously-diagnosed persons with HIV will be reported over the next 2 years. Also, data reports are gradually being redesigned to incorporate HIV case data—see new Table 10 in this issue. No new funding or staff is available to carry out this work. We appreciate your understanding during this time. For data users needing more frequent statistical updates, please contact PH-SKC or DOH to arrange to receive a monthly 2-page report of AIDS case data.

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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The HIV/AIDS Epidemiology Program's publications are also on the internet at: www.metrokc.gov/health/apu/epi

To be included on the mailing list or to request address corrections, write to the PH-SKC HIV/AIDS Epidemiology Program or phone (206)296-4645, or email steve.hitchcock@metrokc.gov.

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 12/31/00*			
	New cases reported 2nd half 2000	133	1	134
	Cases reported year-to-date	241	1	242
	Cumulative cases	6,087	15	6,102
	Cumulative deaths	3,575	8	3,583
	Persons living[3]	2,512	7	2,519
OTHER COUNTIES	*Cases reported as of 12/31/00*			
	New cases reported 2nd half 2000	91	0	91
	Cases reported year-to-date	238	1	239
	Cumulative cases	3,307	18	3,325
	Cumulative deaths	1,776	11	1,787
	Persons living[3]	1,531	7	1,538
WA STATE	*Cases reported as of 12/31/00*			
	New cases reported 2nd half 2000	224	1	225
	Cases reported year-to-date	479	2	481
	Cumulative cases	9,394	33	9,427
	Cumulative deaths	5,351	19	5,370
	Persons living[3]	4,043	14	4,057
U.S.	*Cases reported as of 6/30/00*			
	Cumulative cases	745,103	8,804	753,907
	Cumulative deaths	433,296	5,086	438,795
	Persons living[3]	311,807	3,718	315,112

[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 12/31/00 - 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	5	(0.1)	5	(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)	4	(50)	4	(50)
	Spokane	386	(4.1)	215	(56)	171	(44)
	Stevens	17	(0.2)	6	(35)	11	(65)
	Walla Walla	53	(0.6)	27	(51)	26	(49)
	Whitman	9	(0.1)	4	(44)	5	(56)
	SUBTOTAL	**519**	**(5.5)**	**278**	**(54)**	**241**	**(46)**
Region 2:	Benton	65	(0.7)	28	(43)	37	(57)
	Chelan	31	(0.3)	19	(61)	12	(39)
	Douglas	2	(0.0)	2	(100)	0	(0)
	Franklin	22	(0.2)	10	(45)	12	(55)
	Grant	25	(0.3)	19	(76)	6	(24)
	Kittitas	13	(0.1)	8	(62)	5	(38)
	Yakima	130	(1.4)	68	(52)	62	(48)
	SUBTOTAL	**288**	**(3.1)**	**154**	**(53)**	**134**	**(47)**
Region 3:	Island	51	(0.5)	33	(65)	18	(35)
	San Juan	16	(0.2)	10	(63)	6	(38)
	Skagit	45	(0.5)	27	(60)	18	(40)
	Snohomish	494	(5.2)	262	(53)	232	(47)
	Whatcom	133	(1.4)	69	(52)	64	(48)
	SUBTOTAL	**739**	**(7.8)**	**401**	**(54)**	**338**	**(46)**
Region 4:	**King**	**6,102**	**(64.7)**	**3,583**	**(59)**	**2,519**	**(41)**
Region 5:	Kitsap	166	(1.8)	95	(57)	71	(43)
	Pierce	837	(8.9)	454	(54)	383	(46)
	SUBTOTAL	**1003**	**(10.6)**	**549**	**(55)**	**454**	**(45)**
Region 6:	Clallam	44	(0.5)	21	(48)	23	(52)
	Clark	326	(3.5)	181	(56)	145	(44)
	Cowlitz	80	(0.8)	44	(55)	36	(45)
	Grays Harbor	41	(0.4)	21	(51)	20	(49)
	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	60	(0.6)	14	(23)	46	(77)
	Pacific	12	(0.1)	8	(67)	4	(33)
	Skamania	7	(0.1)	5	(71)	2	(29)
	Thurston	135	(1.4)	69	(51)	66	(49)
	Wahkiakum	2	(0.0)	0	(0)	2	(100)
	SUBTOTAL	**776**	**(8.2)**	**405**	**(52)**	**371**	**(48)**
TOTAL		**9,427**	**(100.0)**	**5,370**	**(57)**	**4,057**	**(43)**

[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:	12/31/00		12/31/00		12/31/00		6/30/00[2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
SEX								
Male	5,806	(95)	2,904	(87)	8,710	(92)	492,221	(85)
Female	296	(5)	421	(13)	717	(8)	89,208	(15)
AGE GROUP (YRS)								
< 13	15	(<1)	18	(1)	33	(<1)	7,629	(1)
13-19	12	(<1)	25	(1)	37	(<1)	2,754	(<1)
20-29	1,041	(17)	663	(20)	1,704	(18)	102,904	(18)
30-39	2,959	(48)	1,447	(44)	4,406	(47)	263,726	(45)
40-49	1,534	(25)	808	(24)	2,342	(25)	144,992	(25)
50-59	434	(7)	251	(8)	685	(7)	43,026	(7)
> 59	107	(2)	113	(3)	220	(2)	16,398	(3)
RACE/ETHNICITY								
White, not Hispanic	4,887	(80)	2,658	(80)	7,545	(80)	268,856	(46)
Black, not Hispanic	634	(10)	294	(9)	928	(10)	203,189	(35)
Hispanic	374	(6)	252	(8)	626	(7)	103,023	(18)
Asian/Pacific Islander	116	(2)	45	(1)	161	(2)	4,131	(1)
American Indian/AK Native	91	(1)	76	(2)	167	(2)	1,569	(<1)
Unknown	0	(0)	0	(0)	0	(0)	661	(<1)
HIV EXPOSURE CATEGORY								
Male-male sex	4,600	(75)	1,844	(55)	6,444	(68)	287,576	(49)
Injection drug use (IDU)	349	(6)	500	(15)	849	(9)	146,359	(25)
IDU & male-male sex	624	(10)	318	(10)	942	(10)	37,152	(6)
Heterosexual contact	196	(3)	299	(9)	495	(5)	49,764	(9)
Hemophilia	30	(<1)	56	(2)	86	(1)	4,674	(1)
Transfusion	53	(1)	66	(2)	119	(1)	8,261	(1)
Mother at risk/has HIV	14	(<1)	15	(<1)	29	(<1)	6,940	(1)
Undetermined/other[3]	236	(4)	227	(7)	463	(5)	40,703	(7)
TOTAL CASES	**6,102**		**3,325**		**9,427**		**581,429**	

[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 12/31/00 - 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	3,895	(82)	316	(58)	258	(72)	89	(82)	42	(57)	4,600	(79)
Injection drug use (IDU)	138	(3)	77	(14)	35	(10)	3	(3)	7	(9)	260	(4)
IDU & male-male sex	512	(11)	58	(11)	29	(8)	5	(5)	20	(27)	624	(11)
Heterosexual contact	29	(1)	22	(4)	9	(3)	1	(1)	1	(1)	62	(1)
Hemophilia	28	(1)	1	(<1)	0	(0)	1	(1)	0	(0)	30	(1)
Transfusion	27	(1)	2	(<1)	3	(1)	1	(1)	1	(1)	34	(1)
Mother at risk/has HIV	3	(<1)	3	(1)	0	(0)	0	(0)	0	(0)	6	(<1)
Undetermined/other	92	(2)	63	(12)	24	(7)	8	(7)	3	(4)	190	(3)
MALE SUBTOTAL (row %)	**4,724**	**(81)**	**542**	**(9)**	**358**	**(6)**	**108**	**(2)**	**74**	**(1)**	**5,806**	**(100)**
FEMALE												
Injection drug use (IDU)	45	(28)	31	(34)	1	(6)	0	(0)	12	(71)	89	(30)
Heterosexual contact	82	(50)	35	(38)	10	(63)	3	(38)	4	(24)	134	(45)
Hemophilia	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
Transfusion	13	(8)	4	(4)	1	(6)	1	(13)	0	(0)	19	(6)
Mother at risk/has HIV	3	(2)	3	(3)	2	(13)	0	(0)	0	(0)	8	(3)
Undetermined/other	20	(12)	19	(21)	2	(13)	4	(50)	1	(6)	46	(16)
FEMALE SUBTOTAL (row %)	**163**	**(55)**	**92**	**(31)**	**16**	**(5)**	**8**	**(3)**	**17**	**(6)**	**296**	**(100)**
TOTAL	**4,887**	**(80)**	**634**	**(10)**	**374**	**(6)**	**116**	**(2)**	**91**	**(1)**	**6,102**	**(100)**

Table 4B. Cumulative AIDS[1] cases by gender, race/ethnicity, and HIV exposure category - Reported as of 12/31/00 - 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	5,487	(77)	421	(55)	356	(63)	112	(80)	68	(50)	6,444	(74)
Injection drug use (IDU)	398	(6)	129	(17)	75	(13)	4	(3)	22	(16)	628	(7)
IDU & male-male sex	779	(11)	78	(10)	47	(8)	5	(4)	33	(24)	942	(11)
Heterosexual contact	90	(1)	40	(5)	27	(5)	4	(3)	4	(3)	165	(2)
Hemophilia	80	(1)	1	(<1)	1	(<1)	1	(1)	0	(0)	83	(1)
Transfusion	61	(1)	3	(<1)	7	(1)	1	(1)	1	(1)	73	(1)
Mother at risk/has HIV	6	(<1)	5	(1)	0	(0)	0	(0)	1	(1)	12	(<1)
Undetermined/other	206	(3)	84	(11)	54	(10)	13	(9)	6	(4)	363	(4)
MALE SUBTOTAL (row %)	7,107	(82)	761	(9)	567	(7)	140	(2)	135	(2)	8,710	(100)
FEMALE												
Injection drug use (IDU)	131	(30)	60	(36)	7	(12)	2	(10)	21	(66)	221	(31)
Heterosexual contact	216	(49)	65	(39)	36	(61)	7	(33)	6	(19)	330	(46)
Hemophilia	3	(1)	0	(0)	0	(0)	0	(0)	0	(0)	3	(<1)
Transfusion	31	(7)	7	(4)	3	(5)	3	(14)	2	(6)	46	(6)
Mother at risk/has HIV	7	(2)	5	(3)	4	(7)	1	(5)	0	(0)	17	(2)
Undetermined/other	50	(11)	30	(18)	9	(15)	8	(38)	3	(9)	100	(14)
FEMALE SUBTOTAL (row %)	**438**	**(61)**	**167**	**(23)**	**59**	**(8)**	**21**	**(3)**	**32**	**(4)**	**717**	**(100)**
TOTAL	**7,545**	**(80)**	**928**	**(10)**	**626**	**(7)**	**161**	**(2)**	**167**	**(2)**	**9,427**	**(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 12/31/00 - King County and WA State

	KING COUNTY				WASHINGTON STATE			
	MALE		FEMALE		MALE		FEMALE	
AGE (YRS)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
< 5	5	(<1)	5	(2)	11	(<1)	13	(2)
5-12	2	(<1)	3	(1)	5	(<1)	4	(1)
13-19	8	(<1)	4	(1)	26	(<1)	11	(2)
20-29	961	(17)	80	(27)	1,526	(18)	178	(25)
30-39	2,834	(49)	125	(42)	4,116	(47)	290	(40)
40-49	1,485	(26)	49	(17)	2,199	(25)	143	(20)
50-59	415	(7)	19	(6)	633	(7)	52	(7)
> 59	96	(2)	11	(4)	194	(2)	26	(4)
TOTAL	**5,806**	**(100)**	**296**	**(100)**	**8,710**	**(100)**	**717**	**(100)**

[1] AIDS by 1993 surveillance case definition

Table 6. AIDS[1] cases, deaths, and case-fatality rates by year Reported as of 12/31/00 - 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	11	55	11	(100)	20	20	(100)
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	461	73	417	(90)	629	566	(90)
1990	518	68	451	(87)	757	661	(87)
1991	562	66	466	(83)	854	711	(83)
1992	620	67	435	(70)	924	668	(72)
1993	644	65	381	(59)	995	606	(61)
1994	540	61	243	(45)	887	413	(47)
1995	508	64	132	(26)	793	219	(28)
1996	417	59	46	(11)	707	94	(13)
1997	295	56	38	(13)	526	63	(12)
1998	250	62	20	(8)	405	40	(10)
1999[4]	181	52	11	(6)	350	32	(9)
2000[4]	118	46	11	(9)	254	21	(8)
TOTAL	**6,102**	**(65)**	**3,583**	**(59)**	**9,427**	**5,370**	**(57)**

[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 12/31/00 - King County

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	285	(68)	186	(63)	159	(64)	117	(65)	65	(55)
Injection drug use (IDU)	35	(8)	15	(5)	25	(10)	16	(9)	16	(14)
IDU & male-male sex	32	(8)	34	(12)	23	(9)	16	(9)	13	(11)
Heterosexual contact	23	(6)	16	(5)	11	(4)	7	(4)	9	(8)
Hemophilia	3	(1)	3	(1)	0	(0)	1	(1)	0	(0)
Transfusion	0	(0)	3	(1)	3	(1)	1	(1)	0	(0)
Mother at risk/has HIV	3	(1)	1	(<1)	0	(0)	0	(0)	1	(1)
Undetermined/other[3]	36	(9)	37	(13)	29	(12)	23	(13)	14	(12)

Table 7B. AIDS cases by HIV exposure category and year of diagnosis Reported as of 12/31/00 - Other Counties

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	143	(49)	105	(45)	70	(45)	67	(40)	62	(46)
Injection drug use (IDU)	50	(17)	42	(18)	33	(21)	34	(20)	25	(18)
IDU & male-male sex	28	(10)	18	(8)	11	(7)	15	(9)	6	(4)
Heterosexual contact	44	(15)	28	(12)	21	(14)	24	(14)	16	(12)
Hemophilia	2	(1)	4	(2)	0	(0)	1	(1)	0	(0)
Transfusion	5	(2)	4	(2)	1	(1)	1	(1)	0	(0)
Mother at risk/has HIV	1	(<1)	1	(<1)	0	(0)	0	(0)	1	(1)
Undetermined/other[3]	17	(6)	29	(13)	19	(12)	27	(16)	26	(19)

Table 7C. AIDS cases by HIV exposure category and year of diagnosis Reported as of 12/31/00 - WA State

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male-male sex	428	(61)	291	(55)	229	(57)	184	(53)	127	(50)
Injection drug use (IDU)	85	(12)	57	(11)	58	(14)	50	(14)	41	(16)
IDU & male-male sex	60	(8)	52	(10)	34	(8)	31	(9)	19	(7)
Heterosexual contact	67	(9)	44	(8)	32	(8)	31	(9)	25	(10)
Hemophilia	5	(1)	7	(1)	0	(0)	2	(1)	0	(0)
Transfusion	5	(1)	7	(1)	4	(1)	2	(1)	0	(0)
Mother at risk/has HIV	4	(1)	2	(<1)	0	(0)	0	(0)	2	(1)
Undetermined/other[3]	53	(7)	66	(13)	48	(12)	50	(14)	40	(16)

[1]Reporting for recent years is incomplete
[2]Year to date (cases reported as of 12/31/00)
[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 12/31/00 - King County

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	386	(93)	271	(92)	227	(91)	163	(90)	101	(86)
Adult Female Cases	28	(7)	23	(8)	23	(9)	18	(10)	16	(14)
Pediatric Cases	3	(1)	1	(<1)	0	(0)	0	(0)	1	(1)

Table 8B. AIDS cases by age/gender and year of diagnosis Reported as of 12/31/00 - Other counties

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	237	(82)	191	(83)	136	(88)	135	(80)	108	(79)
Adult Female Cases	52	(18)	39	(17)	19	(12)	34	(20)	27	(20)
Pediatric Cases	1	(<1)	1	(<1)	0	(0)	0	(0)	1	(1)

Table 8C. AIDS cases by age/gender and year of diagnosis Reported as of 12/31/00 - WA State

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Adult Male Cases	623	(88)	462	(88)	363	(90)	298	(85)	209	(82)
Adult Female Cases	80	(11)	62	(12)	42	(10)	52	(15)	43	(17)
Pediatric Cases	4	(1)	2	(<1)	0	(0)	0	(0)	2	(1)

[1] Reporting for years is incomplete
[2] Year to date (cases reported as of 12/31/00)

Table 9. Deaths of reported AIDS cases by year of death Reported as of 12/31/00 - King County, Other counties, WA State

	1996		1997		1998		1999[1]		2000[1,2]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
King County	285	(61)	106	(49)	88	(59)	51	(47)	56	(71)
Other Counties	179	(39)	110	(51)	62	(41)	57	(53)	23	(29)
All WA State	464	(100)	216	(100)	150	(100)	108	(100)	79	(100)

[1] Reporting for recent years is incomplete
[2] Year to date (deaths reported as of 12/31/00)

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:	12/31/00		12/31/00		12/31/00		6/30/00[4]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
SEX								
Male	1,166	(87)	559	(75)	1,725	(83)	93,527	(72)
Female	170	(13)	187	(25)	357	(17)	36,814	(28)
AGE GROUP (YRS)								
< 13	16	(1)	15	(2)	31	(1)	2,063	(2)
13-19	41	(3)	24	(3)	65	(3)	5,262	(4)
20-29	455	(34)	273	(37)	728	(35)	43,451	(33)
30-39	559	(42)	274	(37)	833	(40)	50,379	(39)
40-49	217	(16)	124	(17)	341	(16)	21,835	(17)
50-59	43	(3)	33	(4)	76	(4)	5,471	(4)
> 59	5	(<1)	3	(<1)	8	(<1)	1,880	(1)
RACE/ETHNICITY								
White, not Hispanic	980	(73)	564	(76)	1,544	(74)	48,878	(38)
Black, not Hispanic	201	(15)	81	(11)	282	(14)	68,183	(52)
Hispanic	101	(8)	60	(8)	161	(8)	10,281	(8)
Asian/Pacific Islander	26	(2)	14	(2)	40	(2)	506	(<1)
American Indian/AK Native	22	(2)	15	(2)	37	(2)	824	(1)
Unknown	6	(<1)	12	(2)	18	(1)	1,680	(1)
HIV EXPOSURE CATEGORY								
Male-male sex	891	(67)	315	(42)	1,206	(58)	41,818	(32)
Injection drug use (IDU)	100	(7)	151	(20)	251	(12)	19,720	(15)
IDU & male-male sex	143	(11)	69	(9)	212	(10)	5,752	(4)
Heterosexual contact	59	(4)	105	(14)	164	(8)	21,143	(16)
Hemophilia	6	(<1)	3	(<1)	9	(<1)	560	(<1)
Transfusion	5	(<1)	6	(1)	11	(1)	828	(1)
Mother at risk/has HIV	14	(1)	14	(2)	28	(1)	1,782	(1)
Undetermined/other[5]	118	(9)	83	(11)	201	(10)	38,749	(30)
TOTAL CASES	1,336	(100)	746	(100)	2,082	(100)	130,352	(100)

[1] Persons reported with HIV infection who have not developed AIDS
[2] HIV infection reports received as of 12/31/00. 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 34 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

Evaluation of HIV Infection Reporting in Washington State: Year One Status Report

In July 1999, the State Board of Health (SBOH) approved revisions to WAC 246-100, mandating reporting of asymptomatic HIV infection by providers and laboratories using a name-to-code system, with an implementation date of September 1, 1999. On July 12, 2000, the SBOH adopted a new chapter (WAC 246-101) to replace notifiable conditions rules previously located in WAC 246-100. This new chapter retains the same provisions for HIV surveillance that were set forth during the revision process of 1999. Details about the reporting system can be found in a previous issue of this publication ("HIV Reporting in Washington State: Questions and Answers," 2nd Quarter 1999, pages 8-12). As part of its rules, the SBOH mandated "Within twelve months of the effective date of the HIV infection reporting system established in WAC 246-100-076, the state health officer, in cooperation with local health officers, will report to the board on:

- *The ability of the reporting system to meet surveillance performance standards established by the federal Centers for Disease Control and Prevention (CDC);*
- *The cost of the reporting system for state and local health departments;*
- *The reporting system's effect on disease control activities; and*
- *The impact of HIV reporting on HIV testing among persons at increased risk of HIV infection."*

Findings

This article presents the highlights of that report, which was given to the SBOH in Port Townsend on September 13, 2000. Findings are described in relation to each of the above criteria.

1) The ability of the reporting system to meet surveillance performance standards established by the federal CDC (WAC 246-100-043[1])

To ensure reliable estimates of the number of people who are HIV-infected, and to ensure accurate and timely data for monitoring HIV/AIDS trends, the CDC has set forth minimum performance standards for HIV/AIDS surveillance. These standards must be met as a condition of receiving federal funding for surveillance and in order for Washington State data to be included in the national statistics. The requirements of the surveillance system are as stated in a CDC Recommendation and Reports published in 1999[1]. The guidelines include recommended security and confidentiality practices that ensure privacy of the individual.

Analyses of HIV surveillance data obtained during initial implementation in WA state yielded the following findings with respect to performance of the system:

- ❑ Completeness of reporting: 61% completeness vs. CDC standard of greater than or equal to 85%
- ❑ Timeliness: 93% of cases reported within 6 months of diagnosis vs. CDC standard of greater than or equal to 66%
- ❑ Duplicates: 3% duplicate case reports vs. CDC standard of less than 5%
- ❑ Risk information: 88% cases with HIV risk information vs. CDC standard of greater than or equal to 85%
- ❑ Permit matching of databases: Were able to match with two public health databases
- ❑ Security and confidentiality: Adopted CDC standards, provided training statewide, conducted site visits, designated an Overall Responsible Party, and developed and implemented protocol for breach investigations.

2) The cost of the reporting system for state and local health departments (WAC 246-100-043[2])

Costs for implementing HIV surveillance were estimated at $154,000 for DOH (all federal dollars), $202,000 for Public Health-Seattle & King County (all federal dollars), and $90,000 for non-SKC local health jurisdictions. Although additional costs were associated with implementation of HIV surveillance, no new funds were received by DOH or the local health jurisdictions for implementation. Some limited federal funds were received by Public Health-Seattle & King County for specific evaluation activities. Costs were absorbed primarily through resource shifting; however, there were no reports that carrying out these activities compromised other resources for HIV/AIDS prevention and care.

3) The reporting system's effect on disease control activities (WAC 246-100-043[3])

Partner notification services: For HIV and AIDS cases reported between 9/1/99 and 7/31/00, the majority of providers (63%) indicated on the case report that they would assume responsibility for providing partner notification services. Public health disease intervention specialists provided assistance to 35 (59%) of the 59 cases where the provider initially requested assistance from the local health jurisdiction (LHJ) and the client met LHJ criteria for partner notification.

When a small sample of providers who indicated on the case report that they would provide PN services for their client were interviewed, however, a majority of them said that they refer patients to the LHJ for PN or they otherwise seek LHJ assistance. Although these data and feedback provided by AIDSNET representatives indicated that, at least in some regions, there is interest in PN assistance from LHJs, systems will need to be developed to ensure that PN is prioritized when considering funding of public health interventions.

Epidemiologic data for planning purposes: Between September 1, 1999 and July 31, 2000, there were 1,032 new HIV cases (981 asymptomatic HIV and 51 symptomatic cases) reported to the Washington State Department of Health. Of those cases, 157 (15%) were newly diagnosed (on or after September 1,1999) and 875 (85%) were prevalent cases (cases that received care on or after September 1, 1999 but were diagnosed prior to that date).

A comparison was done of recently diagnosed asymptomatic HIV cases (1998-2000) and AIDS cases diagnosed in the same time period. The HIV cases were more likely than the AIDS cases to be female (20% vs. 13%, respectively; $p < 0.05$) and under age 30 (35% vs. 17%, respectively; $p < 0.05$). Otherwise, the characteristics of recently diagnosed asymptomatic HIV cases were similar to those of recently diagnosed AIDS cases. For example, men who have sex with men (56% vs. 55%) and injection drug users (13% vs. 14%) continue to account for an equivalent majority of cases in both groups.

These findings have been helpful to disease control efforts in that they confirm impressions about the increasing impact of the HIV epidemic on women, and they affirm that prevention plans that were formulated based upon reported AIDS are reasonable at least for the current planning cycle. As HIV data become more complete and include more newly diagnosed cases, additional demographic and risk patterns may emerge.

AIDS case reporting increased 21% during HIV implementation, in part due to improved laboratory reporting and increased attention to surveillance in general. Even if Ryan White Care Act funding continues to be based on AIDS cases, HIV surveillance has been indirectly helpful in improving funding by increasing the ability of the AIDS surveillance system to pick up unreported cases.

4) The impact of HIV reporting on HIV testing among persons at increased risk of HIV infection (WAC 246-100-043[4])

Impact on HIV testing rates among high-risk persons: Data from publicly funded counseling and testing sites indicate that the number of HIV tests has been decreasing over the last 8 years. The number of positive test results has also been declining. Recent trends show that the number of tests has been declining and the positivity rate has remained relatively stable. Data from publicly funded counseling and testing sites also indicate that the number of confidential tests has remained relatively stable, while a small decrease in the number of anonymous tests has been observed. The demographic composition of the testing population has remained stable; the majority of those tested at publicly funded sites are male, white, and have a risk identified as "other" (a category that includes heterosexuals who have multiple sex partners). None of these trends appear to have been changed by the implementation of HIV reporting.

Data from two private laboratories which provide a substantial proportion of HIV tests done by these sites (55%) show that the total number of tests conducted by these two laboratories has increased during the reporting period and that positivity has remained relatively stable. Home testing and testing in Oregon by Washington State residents have declined and remained stable, respectively, since implementation of HIV reporting and together account for fewer than 1% of tests done on Washington State residents.

Preliminary findings from a CDC-funded HIV testing survey (HITS) conducted by PHSKC indicate that most respondents are unaware of the reporting requirements and that these have had little impact on testing behavior among high

risk groups. Ten percent of those who delayed testing indicated that fear about reporting to the government was one reason they delayed testing, but only one participant cited it as the primary reason.

The Department conducted two surveys of local health jurisdictions that indicated that anonymous testing is available in all local health jurisdictions. In two LHJs, difficulty in reaching the designated person for HIV counseling and testing could be perceived as a barrier, and in two others, fees for low-income individuals could be perceived as a barrier. Technical assistance is being offered in these jurisdictions to ensure reasonable access to anonymous testing in accordance with SBOH rules.

Community input into the evaluation process: In September 1999, DOH convened a community advisory group to gather input on access to testing and the impact of HIV surveillance upon that. This group included community-based and governmental members from the HIV advocacy, prevention, care, and epidemiology communities. It met three times to discuss the implementation of HIV surveillance, means of assessing its impact on testing, and findings from preliminary data obtained over the course of the year.

Summary findings from the group indicate that HIV counseling and testing data do not show any changing trends associated with implementation of HIV surveillance, and although some members knew of particular high-risk individuals who were avoiding testing because of reporting, they were able to direct them to anonymous test sites. The group also recognized that additional time is needed to observe trends and additional resources are needed to explore questions that cannot be answered by a surveillance system.

Conclusions

In summary, DOH found the following with respect to the first year of surveillance for asymptomatic HIV infection:

• The system meets the majority of CDC's performance standards for an HIV surveillance system, but completeness of reporting is likely to lag for several years until all prevalent cases are reported. The non-name coded identifier does not appear to substantially hamper surveillance efforts and the system adequately protects the confidentiality of persons reported.

• While LHJs and DOH have allocated resources to incorporate surveillance for HIV infection into the existing system, virtually no new local or state resources were allocated for implementation of this system. The overall costs reported ($297,000 for LHJs, $154,000 for DOH) represent shifted resources, not new spending. There is no evidence that the cost of the system, however, has shifted resources away from prevention and care efforts.

• The system has not had sufficient time to yield substantial disease control impact. Early findings have been helpful in affirming the appropriateness of previous prevention and care planning; however, specific prevention efforts (e.g., partner notification) have not increased in most jurisdictions as a result of this early surveillance activity. The name-to-code conversion required at 90 days does not appear to be a substantial barrier to ensuring disease control follow-up of reported cases. The barrier instead seems not to be any element of the surveillance system itself as much as inadequately developed systems to ensure partner notification is prioritized when considering funding of public health interventions.

• Evidence indicates that anonymous and confidential HIV testing trends have continued along their previously established courses, and these were not affected by the implementation of surveillance for asymptomatic HIV infection.

DOH will continue to assess the HIV/AIDS surveillance system and provide information to public health and community partners as well as to other states that are considering adoption of a similar surveillance system. Information about this evaluation was provided to Oregon and was used in the decision-making process that led to adoption of an HIV reporting regulation very similar to Washington's on December 21, 2000. Oregon's system is to be implemented on July 1, 2001.

For more information or to receive a copy of the full report, contact Maria Courogen at (360) 236-3458 or maria.courogen@doh.wa.gov.

❑ *Contributed by Maria Courogen MPH*

[1]CDC. Recommendations and Reports: Guidelines for National HIV Case Surveillance including Monitoring for HIV and AIDS. **MMWR** 1999;48:13.

Incidence of HIV among MSM and MSM Who Inject Drugs is Far Greater than among other Populations in King County

HIV incidence among persons tested for HIV antibody at publicly-funded sites in Seattle/King County was measured using the serologic testing algorithm to estimate HIV seroincidence (STARHS). STARHS uses a less-sensitive version of the standard enzyme-linked immunoassay, the LS-EIA, to differentiate recent from longer standing HIV infections. The LS-EIA is non-reactive to antibody levels attained prior to a mean of 140 days (95% CI: 125-156) after HIV infection. The proportion of recent infections detected by the LS-EIA among persons presenting for HIV testing is used to estimate the incidence of infection among that testing population.

LS-EIA testing on double-blinded stored blood serum samples from the publicly-funded HIV test sites between 1996 and 1999 detected 85 incident cases of HIV infection. The incidence of HIV was estimated to be greatest among men who have sex with men who also injected drugs (MSM/IDU). The figure below shows the estimated HIV incidence as indicated by the solid dot, and the 95% confidence interval indicated by the vertical bar bisecting the dot. Statistically significant estimates of incidence in different exposure groups are indicated by non-overlapping bars.

HIV seroincidence for MSM/IDU was 4.0 new infections per 100 uninfected testers per year (95% CI: 1.4-9.3). Among MSM who did not inject drugs it was 2.5 (95%CI: 1.7-3.7). Seroincidence among injection drug users was 0.2 new infections per 100 uninfected persons per year (95% CI: 0.0-0.7) and for non-MSM, non-IDU persons seroincidence was 0.1 new infections per 100 uninfected persons per year (95% CI: 0.1-0.3).

Satten and colleagues have recently noted that differences in testing frequency can affect estimates of seroincidence among testing populations as calculated using STARHS.[1] Infrequent testers are less likely to be detected as LS-EIA non-reactive, and thereby as incident cases, than frequent testers. Accordingly, if the frequency of HIV testing among MSM/IDU is significantly less than among MSM who do not inject drugs, then the HIV incidence among MSM/IDU compared with that of non-injecting MSM may be greater than that displayed here.

❑ *Contributed by Edward White MPH*

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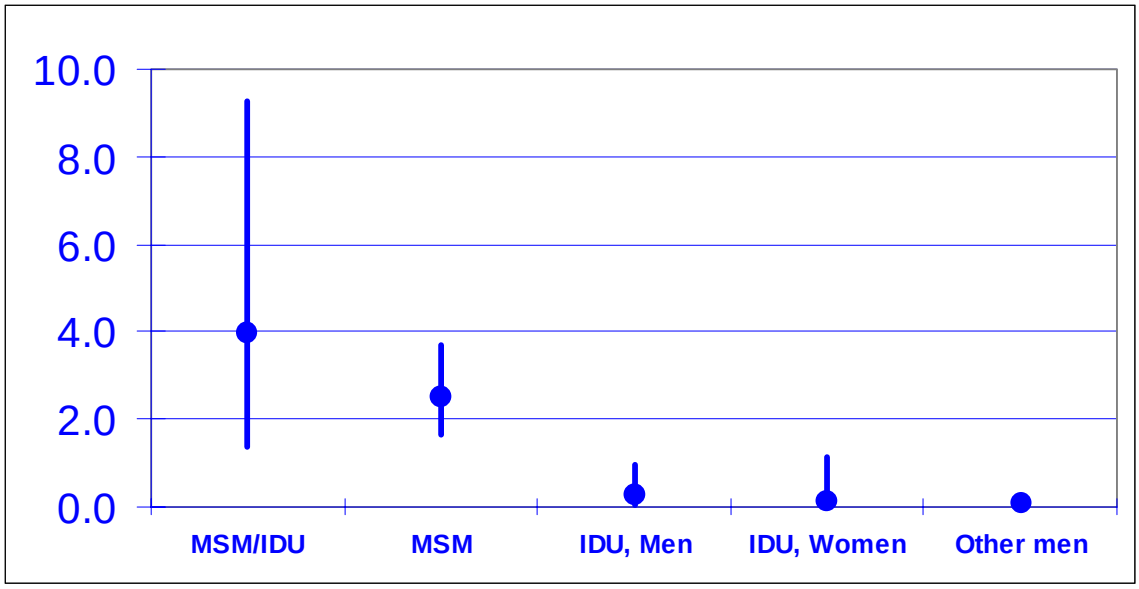
[1]Satten GA, Janssen R, Busch MP, Datta S. Validating marker-based incidence estimates in repeatedly screened populations. **Biometrics** 1999;55:1224-1227.

New HIV infections per 100 uninfected persons per year seen at publicly-funded HIV test sites, King County, 1996-1999



Survey of HIV Prevalence and Risk Behaviors in Recently Arrested Injection Drug Users in King County: The Kiwi Study

There are an estimated 10,000 to 15,000 injection drug users (IDU) in King County. Although monitoring of HIV infection among IDU in the Seattle area has shown consistently low prevalence of infection, the HIV outbreak in Vancouver, B.C. IDU which started in 1994, raised concerns that a similar scenario could happen in King County. When the RAVEN Study, which had provided important information on HIV and risk behaviors among 3,000 local IDU, began to wind down it was decided that a new study was needed to provide continued monitoring of HIV and drug-use behaviors in this population. We knew from the RAVEN Study that frequent incarceration was common among IDU, suggesting that a jail-based study would be an appropriate approach. Subsequently, the HIV/AIDS Epidemiology Program of Public Health-Seattle & King County (PHSKC) received CDC support to implement a survey to monitor HIV, drug use, sexual risk behaviors, and travel patterns in recently arrested IDU booked in the King County Correctional Facility. This report presents an overview of results from the first year and a half of the survey.

Methods

The Kiwi Study began in August 1998 and is an anonymous cross-sectional face-to-face interview survey of HIV and risk behaviors among IDUs recently arrested and booked in the King County Correctional Facility in Seattle. At the jail, participants are sampled through two different methods in an attempt to obtain a broad sample of recently booked IDU. Trained study staff administer a brief screening survey to all persons being booked in jail at randomly selected time periods to identify current IDU 18 years and older and to invite them to participate in the study. Those who agree are referred to the Jail Health Clinic for HIV counseling and testing (CT) and completion of the study questionnaire. Persons who are released from jail before being seen at the Jail Health Clinic are referred to the nearby research storefront office for HIV CT and the study questionnaire. Other eligible IDU who seek HIV CT at the Jail Health Clinic, who were not encountered by study staff in booking, are also invited to participate. Information on sexual and drug-use behaviors and health history are collected in the pre-test counseling assessment and more detailed data on drug-use behaviors and traveling patterns are asked in the Kiwi Study questionnaire. Both the Jail Health Clinic and the research storefront office provide standard post-test HIV counseling.

Results

From 8/1/98 through 2/11/00, a total of 6,256 screening interviews were conducted at the Seattle jail booking. Most (83%) agreed to participate in the initial screening interview and among these, 14% were eligible to participate in the study. After exclusion of 52 participants who either completed the study twice or were otherwise not eligible, 560 subjects were available for analysis, including 290 recruited from booking and 270 recruited at the Jail Health Clinic.

In analyzing the data, we looked at six-month intervals to see if there had been any change in HIV or risk behavior over the course of our study period. There were no noticeable changes to report.

Sociodemographic characteristics

Most of the survey participants were male (76%), over 30 years of age (77%), and either White (59%) or Black (22%) (Table 1). Over one-half had no permanent residence prior to their arrest, over one-quarter had not completed high school, nearly two-thirds were unemployed, and more than one-quarter were receiving public financial assistance. Sixty-one percent had spent more than one year incarcerated over their lifetime. The median age at which they first injected drugs was 19 years.

Sexual behaviors

Most survey participants (88%) identified themselves as heterosexual, although women were more likely than men to report bisexual orientation (Table 2). Over one-half had more than 2 sex partners in the past year. Over two-thirds of men and women engaged in un-

protected vaginal sex. Over one-third of all participants reported a lifetime history of at least one STD. Over one-half of the participants recalled a history of at least one type of hepatitis, 35% reporting infection with hepatitis C. The vast majority of participants (85%) had a prior HIV test. Few (6%) had received hepatitis B vaccination.

Drug use behavior

Nearly two-thirds of participants had injected in the last 30 days, the majority of whom injected multiple times per day (Table 3). Heroin was the most commonly injected drug. The majority of participants reported multiple shooting partners, most of whom were regular shooting partners, friends, or steady sex partners.

When asked about injection practices in the last six months, 62% of the participants reported injecting with a previously used needle (Table 3).

Most had shared cookers and shared needles to divide up drugs (backloading). In addition to injection drug use, survey participants used a variety of non-injected drugs, with crack being the non-injection drug used most often (69%).

Over seventy percent of the participants obtained new sterile needles from a needle exchange program in which they exchanged the needles personally. Nearly one-half acquired new unused needles from a pharmacy (Table 4).

Most participants (72%) had been in some kind of drug treatment in their lifetimes, with over one-third in the last year (Table 5). In the last year, 8% had been enrolled in a methadone maintenance and 6% in a 180-day methadone detoxification program. Close to one-quarter of participants reported they had tried but could not get into drug treatment in the last year. Nine percent of the study participants were currently in treatment.

Risk behaviors with people from outside the Seattle area

Forty-three percent of the participants reported traveling outside King County in the past year, and 25% reported traveling outside the state (Table 6). Among those who traveled, over 20% injected with someone from the destination visited, 9% used a needle after someone else had used it, and about one-fifth had sex without a condom. Few participants injected, used needles after, or had unprotected sex within King County with someone from outside the county. We were particularly interested in monitoring drug use and sexual risk behaviors with people from Vancouver. Only 3% of participants injected with someone from Vancouver, B.C. and few (1%) used a needle after someone from Vancouver or had sex without a condom (2%) with someone from Vancouver.

HIV test results

Nine survey participants (2%) tested positive for HIV. Five of these participants were already aware of their HIV status and four had been unaware of their HIV infection.

Discussion

The Kiwi Study demonstrates that it is possible to identify IDU in a jail setting and enroll them in an HIV prevalence and risk behavior study. We found HIV prevalence to be only 2%,which is consistent with findings from other local studies showing that prevalence of HIV has continued to remain low (under 4%) in Seattle-area IDU.[1,2] This indicates that the Vancouver, B.C. HIV outbreak has not expanded to the Seattle area and that the risk of a related outbreak may be avoided unless contact patterns between IDU from the two areas change. However, the high prevalence of risky drug use behaviors reported by participants is troubling and suggests a potential for increased transmission of HIV and other bloodborne infections among IDU in the Seattle community. Most Kiwi Study participants reported injecting with "regular shooting partners," steady sex partners, and friends, and it is possible the low prevalence of HIV may be related to sharing of equipment within small networks.

We found self-reported seropositive hepatitis C status in this study to be much lower (35%) than expected for IDUs. In the RAVEN Study testing, 85% of the IDU participants were seropositive for hepatitis C. Furthermore, less than 10% of Kiwi participants had ever received any hepatitis B vaccinations. These findings indicate that there is a need to increase hepatitis C screening and to routinely provide hepatitis B vaccinations at the Jail Health Clinic, other HIV counseling and testing sites, and other clinic settings that serve

IDUs. *(Note: The Kiwi Study now tests participants for hepatitis C).*

In an effort to reach a broader range of IDUs in King County, we have now expanded this study to include the Regional Justice Center in Kent. In addition, HIV positive blood samples will be tested with the less sensitive enzyme-linked immunosorbant assay, or LS-EIA, to estimate incidence of HIV infection.[3]

Our findings showed that recently arrested IDUs in the Seattle area are practicing risky drug use behaviors prior to their incarceration that warrant continued monitoring of this population. We confirmed that there is a need for improvement of prevention programs to reduce risk behaviors for HIV and other bloodborne infections in this population, including expansion of hepatitis C screening and provision of hepatitis B vaccination. Information gathered in a jail-based serosurveillance system can be useful for planning and evaluation of prevention and care services in the general community as well as in the jail system.

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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 if you have questions about the Kiwi Study.

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

Table 1. Characteristics of Kiwi Study Participants, 8/98-2/00 (n=560)

	%
Gender	
Male	76.4
Female	23.6
Age	
18 – 29 years	23.5
30 – 39 years	40.6
≥ 40 years	35.9
Race/ethnicity	
White, not Hispanic	59.3
Black, not Hispanic	22.4
Native American	7.5
Hispanic/Latino	6.1
Other	4.7
Current type of residence*	
Own house/apartment	37.1
No permanent residence	62.9
Education	
K - 11	26.8
High school graduate or GED	45.3
Some college or technical school	27.9
Unemployed*	64.1
Receiving public assistance*	25.5
Total legal income in the last month*	
$0 no legal income	43.7
$1 - 1,000	38.1
≥ $1,001	18.2
Total lifetime months incarcerated	
< 1 month	11.1
2 - 6 months	16.6
7 - 12 months	11.8
≥ 13 months	60.5
Age first shot drugs	
< 19 years	52.0
20 – 29 years	35.4
≥ 30 years	12.7

*Prior to arrest

[1]Hagan H, McGough JP, Thiede H, Weiss NS, Hopkins S, Alexander ER. Syringe exchange and risk of infection with hepatitis B and C viruses. **Am J Epidemiology** 1999;149:203-213.

[2]Thiede H. HIV prevalence, incidence, and risk behaviors among drug users entering treatment in King County, 1988-1999. **HIV/AIDS Epidemiology Report 1st Half 2000**.

[3]Janssen RS, Satten GA, Stramer SL, et al. New testing strategy to detect early HIV-1 infection for use in incidence estimates and for clinical prevention purposes. **JAMA** 1998;280:42-48.

Table 2. Sexual orientation, sexual activity, and health history by gender

	Total N=560 %	Male N=427 %	Female N=132 %
Sexual Orientation			
Heterosexual	88.1	92.7	73.5
Homosexual	2.7	2.4	3.4
Bisexual	9.2	5.0	22.7
Number of sexual partners past year			
0-1	39.4	42.2	30.3
2-4	33.3	34.7	28.8
≥ 5	27.4	23.2	40.9
Unprotected sex in the past 6 months			
Vaginal	69.1	68.1	72.0
Anal	7.5	7.5	7.6
Lifetime health history			
Gonorrhea	17.4	14.5	26.5
Chlamydia	14.3	8.9	31.8
Genital warts	4.5	4.7	3.8
Herpes	5.2	3.8	9.9
Syphilis	3.0	2.3	5.3
Hepatitis A	8.4	8.4	8.3
Hepatitis B	16.1	14.8	20.5
Hepatitis C	35.2	32.6	43.9
HBV vaccination	6.3	6.1	6.8
Prior HIV test	84.6	83.6	87.9

Table 3. Drug use behavior

	Past Year N=560 %	Past 6 Months N=550 %	Past 30 Days N=354 %
Average frequency of injecting			
< Once a week			14.5
1-6 times a week			19.6
≥ Once per day			66.0
Any drugs injected			
Heroin	81.6		
Heroin and cocaine together (speedballs)	68.4		
Cocaine	63.9		
Speed	26.4		
Drugs injected most often			
Heroin	54.8		58.8
Heroin and cocaine together (speedballs)	21.8		21.4
Cocaine	12.4		9.6
Speed	10.9		10.0
Number of shooting partners			
0-1		32.3	47.3
2-4		31.0	30.3
≥ 5		36.8	22.4
Injected with a needle used by someone else		61.5	41.0
Used a cooker after someone else used it		70.7	60.2
Backloaded		58.7	51.7

Table 4. Source of new and unused needles in the past 6 months

	Any N = 560 %	Most Often N = 560 %
A needle exchange (exchanged personally)	73.8	61.6
A needle exchange (someone else exchanged)	14.0	2.2
A drugstore/pharmacy	44.2	18.7
A friend	25.3	5.6
Someone who sells needles	28.9	4.2
A diabetic	14.6	3.3
A sex partner	14.4	0.7
A drug dealer	10.9	1.3

Table 5. Drug treatment history

	Past Year N=560 %
Ever been in any kind of drug treatment	72.0
Drug treatment in the past year	36.6
Tried, but didn't get into treatment in the past year	21.3
Currently in treatment	9.1
Type of drug treatment in the past year	
12-Step Program	15.5
Therapeutic Community	12.5
Drug-free outpatient program	8.0
Meathadone maintenance	7.5
Meathadone detoxification	6.3
Non-methadone detoxification	5.7
Other	2.7

Table 6. Unprotected sex and needle sharing activities during travel

	N=560 %
Traveled out of Seattle-King County	43.4
Traveled out of WA State	24.5
Traveled out of county, within WA State	22.7
Injected with someone during travels	22.0
Used needles after someone during travels	8.6
Had sex without a condom during travels	18.4
Injected in county with someone from outside the area	13.4
Used needles in county after someone from outside the area	3.6
Had sex without a condom with someone from outside the area	4.1
Injected with someone from Vancouver, B.C.	2.9
Used needles after someone from Vancouver, B.C.	0.9
Had sex without a condom with someone from Vancouver, B.C.	1.6

HIV Disease and Care – Results of a Pilot Surveillance Project

Medical care for HIV and AIDS has become increasingly complex since highly active antiretroviral therapy (HAART) became available in 1996. At the same time, methods of laboratory monitoring of HIV progression have become more sophisticated and issues of treatment adherence have arisen. The HIV/AIDS Surveillance Branch at the federal Centers for Disease Control and Prevention (CDC) developed the Survey of HIV Disease and Care (SHDC) as a potential method to monitor current patterns of treatment and outcomes of HIV disease. In the SHDC, the CDC sought a cost-effective survey design that could be made widely available across the US to gather data to supplement the very limited treatment and outcome data collected by HIV/AIDS case reporting.

The SHDC collects data similar to the Adult/adolescent Spectrum of HIV-related Disease (ASD) project, which has been sponsored by CDC in Seattle and 10 other metropolitan areas since 1990. Potential advantages of SHDC compared to ASD include a streamlined, less expensive method of data collection which might allow more sites to conduct SHDC compared to the current ASD project, and a structured sampling design that allows extrapolation of SHDC data to make inferences about the total HIV-infected population in-care in the community. ASD was designed as a convenience sample and does not necessarily allow reliable extrapolation to the community as a whole. Disadvantages of SHDC compared to ASD are that SHDC does not follow individuals longitudinally over time — rather SHDC would select a new sample each year—and that SHDC has a smaller, less robust sample size with a somewhat reduced scope of data collected.

Seattle was one of 4 sites chosen by CDC to pilot test the SHDC methodology (other sites were Michigan, southern Louisiana, and Houston). In this report, we describe the SHDC methods and results and compare these results with data from two other local HIV/AIDS surveillance data sources: ASD and the HIV/AIDS Reporting System (HARS). Unlike ASD, HARS is population-based and, since all cases of HIV and AIDS should be reported, it includes more HIV-infected persons than the other two projects. Thus, HARS also provided a comparison to SHDC, although fewer details of medical care are collected by HARS.

Methods

❑ **Survey of HIV Disease and Care (SHDC)**
The pilot of the SHDC retrospectively collected data from the medical records of HIV-infected patients at selected clinics and physicians' offices for calendar year 1998. Names and other identifying data, such as medical record number, were not collected.

Sampling: Participating sites and selected patients were chosen in two stages according to a cluster sampling scheme developed by Dr. John Karon, statistician assigned to the project at the CDC Statistics and Data Management Branch. First, medical clinics and health care providers who reported one or more persons living with AIDS in 1998 were randomly selected with a probability of selection proportional to their caseload. Clinics not providing primary care for HIV infection, such as testing and counseling sites, were excluded. Five provider strata were identified based on numbers of living reported AIDS cases and whether or not the site received Health Resources and Services Administration (HRSA) Ryan White Care Act funding. The 5 provider strata were large (70+ reported AIDS patients) and medium (30 – 69 reported AIDS patients) HRSA-funded and non-HRSA-funded funded sites (4 strata), and small providers/clinics (with <30 reported AIDS cases) regardless of HRSA funding. Second, within the selected facilities, patients were chosen within 3 strata: white men, men of color, and women, with the latter two categories oversampled. Patient selection was designed to be representative of all persons in care for HIV and also to allow inference testing of care received by women and men of color who are frequently under-represented in HIV cohort studies. Medical data were abstracted from patient records by trained abstractors using a standardized data collection tool.

***Data collection and management*:** Data collected included health services utilization; diagnoses of HIV-related and other infections and conditions; prophylaxis and treatments; vaccinations; and laboratory markers of HIV and other diseases—earliest diagnosis of HIV infection, complete blood counts, CD4+ T-lymphocyte counts, and viral loads. Duplicate patients were identified based on Soundex (an alphanumeric code based on family name), date of birth, gender, and race. If medical records for a patient were reviewed at two or more facilities, the information from the medical record with greater health services usage was retained, the other deleted (n=5). The data were entered and tabulated using Epi-info software. Weighting was done by the CDC's statistician to estimate the numbers of HIV infected persons in care. Weights ranged from 2.4 to 74.9 for each person sampled. Except where otherwise noted, weighted data are presented.

❑ **Adult/adolescent Spectrum of HIV-related Diseases (ASD)**

ASD, is a multi-center CDC-sponsored, expanded surveillance, medical record review project. The Seattle ASD project began in 1990 and includes 9 clinics representing a mix of public and private, hospital-based and free standing. All sites originally selected continue to participate although new enrollment has been discontinued at 2 sites. The clinics are roughly representative of all facilities providing HIV care in King County, but were not randomly selected. Approximately 15% of patients have been followed at two or more of the facilities. Initial data collection is for a one-year retrospective baseline interval, with follow-up abstractions continuing at 6-month intervals thereafter until death, relocation, or 18 months with no contact. Beginning in 1991, white men were sampled every fourth month at two of the largest sites. As with SHDC, ASD over samples women and men of color.

ASD collects the same information as SHDC, plus some additional data points. For the comparisons to SHDC, weighting was done to project the enrollment that might have been experienced had all clinic patients been enrolled; unless otherwise noted ASD data presented are weighted. Because data abstraction periods do not correlate with calendar years, comparing 1998 data in ASD to SHDC required estimations. A "wide net" was used for data points without an attached date – as most ASD data are collected Yes/No in each 12- 6 month interval with no specific dates of occurrence. Thus, all intervals with patient contact (defined as a hospitalization, outpatient visit, or ER visit) and an interval start or end date in 1998, which could include up to 18 months of data, were included. For other data, such as opportunistic illness (OI) prevalence, associated dates were available and used. For health services usage medical visits and hospitalizations were summed across all intervals including 1998 data and divided by the number of six month intervals (one to three), then multiplied by two for SHDC-comparable annual estimates. ASD data collected and entered through 12/00 are included in this report.

❑ **HIV/AIDS Reporting System (HARS)**

HARS is the nationwide population-based surveillance system for HIV and AIDS. In Washington State, AIDS has been reportable since the early 1980's, symptomatic HIV disease reporting was added in 1987, and reporting of asymptomatic HIV infection began in 9/99. HIV reporting includes cases diagnosed at any time in the past but only as patients receive medical care after 9/1/99; anonymous HIV test results are not reportable. HIV/AIDS surveillance combines laboratory and provider-based systems and collects demographic data for all persons with HIV/AIDS and some clinical data at the point of HIV, Category B, or AIDS diagnosis. Data in this report are for persons alive with HIV/AIDS during 1998 and who were reported to Public Health as of 12/31/00. Given the recent implementation of HIV reporting, the HIV non-AIDS case numbers used in this analysis must still be considered incomplete. No residency restrictions were used for these comparisons as both SHDC and ASD look at persons in care in King County regardless of place of residence.

❑ **Definitions**

As there was substantial use of 3 or more antiretrovirals in novel antiretroviral regimens, we also report use of triple-antiretroviral regimens regardless of the exact components. In 1998 HAART was recommended based on a CD4 count < 500 cells/microliter or a plasma viral load > 10,000 copies.

AIDS was defined as per the 1993 case definition and includes both severe immunosuppression (CD4<200 cells/microliter or <14% of total lymphocytes) or a history of an opportunistic illness (or OI, any of 26 AIDS-defining infections or neoplasms).

PCP (Pneumocystis carinii pneumonia) prophylaxis included trimethoprim-sulfamethoxazole (TMP/SMX or Bactrim or Septra), dapsone, or aerosolized pentamidine.[2] Eligibility for PCP prophylaxis required a CD4<200 cells/microliter.[2] Neither SHDC nor ASD reliably captured a history of oral thrush, so this was not used as an eligibility criteria, as in the OI prophylaxis guidelines.[2]

MAC (Mycobacterium avium complex) prophylaxis included azithromycin, clarithromycin, or rifabutin.[2] Eligibility for MAC prophylaxis required a CD4<50 cells/microliter.[2]

Viral load counts were PCR standardized. The median was used for comparisons as the viral load distribution was not symmetrical and medians were in a range that allowed consideration of viral loads above and below detectable/quantifiable levels.

❑ **Statistical analysis**

As these comparisons were meant to be descriptive, we have not presented statistical comparisons, such as 95% confidence intervals or p-values in this report. Large numbers in or estimated from each database have resulted in statistically significant comparisons of almost all differences of greater than one or two percent (by chi square or t-test). Yet the validity of such statistical comparisons is compromised by non-independence of the three cohorts. ASD and SHDC are for the most parts subsets of HARS; the ASD & SHDC cohorts overlap each other by about 44%. Furthermore, the correct calculation of variance for SHDC with its multi-stage cluster design is beyond the scope of this report.

Results

The pilot of SHDC selected 288 unique patients for medical record review at 14 different health care provider offices/clinics. Four providers declined participation for a 78% participation rate. Two other medical facilities were deemed

HAART was defined for the purpose of this analysis as follows:[1]

First reverse transcriptase inhibitor (RTI)	*Plus one (or more) additional RTI*	*Plus one (or more) protease inhibitor (PI) or non-nuclease reverse transcriptase inhibitor (NNRTI)*	*And excluding*
AZT	3TC or ddI or ddC	Any PI or NNRTI	d4T
D4T	3TC or ddI	Any PI or NNRTI	AZT

ineligible due to either no HIV patients in 1998 or no method to identify patients and providers.

Table 1 presents the estimated demographic characteristics of persons with HIV/AIDS in care in King County derived from the weighted and adjusted SHDC pilot data and Table 2 presents the estimated clinical and health services utilization. The points below compare the SHDC results with those from ASD and/or HARS in the same time period.

Number of persons with HIV infection: Based on the SHDC sampling scheme, we estimated the number of people with known HIV infections receiving medical care in 1998 in King County to be 4,358; these include patients residing in King County as well as other counties. In comparison, HARS contained reports of 3,878 persons living with HIV or AIDS who were diagnosed with HIV in or before 1998 and presumed alive at any point in 1998.

CDC estimates that about one-fourth of all persons with HIV in the US have not been tested and learned of their HIV infection. The local proportion of persons with HIV who have not been diagnosed is unknown, although one study of Seattle-area gay and bisexual men under 30 years of age found that about 40% of those with HIV infection were unaware of their status. Because these individuals are not receiving health care services for HIV, they cannot be included in SHDC, ASD, or HARS. If we assume that the CDC estimate of 25% undiagnosed HIV holds true in King County, then the projected number of HIV-infected persons here based on SHDC data would be 5,810; if we assume that 40% were unaware, then the projected number of HIV infections would be 7,263. These are in the lower range Public Health-Seattle & King County's previously published estimate of 6,000 to 9,000 King County residents with HIV. Another missing component in our estimates is people who know of their HIV infection but who do not receive medical care for HIV.

Demographic characteristics: SHDC results indicate that women are 11% of persons with HIV/AIDS receiving care in King County. This proportion is similar to ASD with 12% women, but both of these databases have a greater proportion of women than the 8% in HARS. The proportion of HIV positive women without AIDS in SHDC and ASD was 14%, which is higher than the 9% of women among persons with AIDS. This may be explained by inclusion of a higher proportion of persons with HIV non-AIDS in ASD relative to the less complete HIV data currently available in HARS.

SHDC indicates an HIV-infected population that is 77% White, 13% African American, 5% Latino/Hispanic, 3% Asian/Pacific Islander, and 1% Native American, a breakdown which is similar to both ASD and HARS. This differs from the King County general population which is 83% White, 5% African American, 3% Latino, 10% Asian, and 1% Native American.

Mortality: King County HARS data showed that the number of deaths among persons with AIDS started declining in 1996, continuing through 1998 when there were fewer than 100 AIDS-related deaths for the first time since 1986. Overall mortality in 1998 was 2-3% among persons with HIV at all stages and 4-5% among person with AIDS in SHDC, ASD, and HARS. Absolute numbers of deaths in 1998 recorded in HARS were 95, whereas the SHDC estimated the number of deaths at 148.

HIV exposure mode: Compared to ASD, SHDC categorized fewer persons with the dual risk of MSM/IDU (9% vs. 15%) and more persons as having no-identified risk (19% vs. 8%) or "other" risk categories (13% vs. 6%), including heterosexual and blood exposure.

Antiretroviral use: Of persons for whom HAART was recommended according to national guidelines 86%, were prescribed one or more antiretroviral in SHDC, whereas 77% were prescribed a triple-plus-drug regimen as their most recent antiretroviral regimen in 1998. Among persons with an AIDS diagnosis, 84% were prescribed a triple+ drug antiretroviral regimen and 92% were prescribed any antiretrovirals. About 76% of the most recent triple+ drug regimens used were standard HAART regimens. The non-standard regimens prescribed included: 1) a reverse transcriptase inhibitor (RTI) plus a protease inhibitor (PI) plus a non-nuclease reverse transcriptase inhibitor (NNRTI); 2) two PIs with one other antiretroviral, including an RTI or an NNRTI; 3) AZT and d4T in the same combination; and 4) other non-standard regimens. Antiretroviral use in ASD was slightly lower: 62% and 74% of persons for whom HAART was recommended and persons living with

Table 1. Demographic characteristics of persons with HIV/AIDS in care in King County, 1998 SHDC pilot data, weighted and adjusted

Estimated total cases	4,358
Gender	
Men	3872 (89%)
Women	486 (11%)
Pregnancy in women	42 (9%)
Race/ethnicity	
White	3368 (77%)
Black	564 (13%)
Latino/Hispanic	215 (5%)
Asian	138 (3%)
Native American	63 (1%)
Unknown	11 (<1%)
Country of birth	
USA	1517 (35%/81% of known)
US territory	23 (1%/1% of known)
Other	357 (8%/18% of known)
Unknown	2461 (56%)
Vital status as of 1/1/1999	
Living	3988 (92%)
Died with AIDS	148 (5%/2727)
Died	148 (3%)
Unknown	222 (5%)
Mode of HIV transmission	
MSM	2313 (53%)
IDU	267 (6%)
MSM/IDU	400 (9%)
Other	550 (13%)
None specified	828 (19%)
Pediatric	Not eligible

AIDS, respectively, were prescribed a triple+ drug regimen as the most recent regimen in ASD in 1998.

PCP and MAC prophylaxis and other preventive care. In SHDC, 86% of eligible persons were prescribed PCP prophylaxis compared to 76% in ASD. Of persons in SHDC eligible for MAC prophylaxis, 78% were prescribed MAC prophylaxis compared to only 44% of those in ASD. Comparing SHDC to ASD there were 55% and 63% persons, respectively, with documentation of tuberculosis screening; 27 vs. 32% receiving influenza vaccines; 59% vs. 49% receiving pneumococcal vaccine; and 64% vs. 47% with documentation of toxoplasmosis titer. The proportion of women receiving Pap smears for women was similar at 51% vs. 54% in SHDC and ASD, respectively. Three percent of persons followed by SHDC had antiretroviral resistance assays in 1998; these data were not routinely collected by ASD until 1999.

Insurance coverage: Over half (54%) of persons followed by SHDC had private insurance or were enrolled in an HMO, 27% received public assistance as measured by enrollment in Medicaid or Medicare, and the remainder had other types of insurance or no health insurance (or none documented). Insurance status was a new data field in ASD in 1998 and it was only sought for 15% of the ASD cohort. Still, the percent of persons with private insurance or who were enrolled in an HMO in ASD, 23%, was much smaller than that for SHDC, and the percent of persons receiving public assistance, 33%, was larger. Sixteen percent of the SHDC cohort received some form of AIDS Prescription Drug Program Assistance.

Stage of HIV infection: SHDC broke down remarkably akin to HARS with 63% AIDS and 37% HIV, non-AIDS in SHDC compared with 61% and 39%, respectively, in HARS. A smaller proportion of persons followed by ASD (48%) were living with AIDS. The median viral load among persons in SHDC was 2,580 copies/ml and median viral load was higher in ASD at 4,070. Mean CD4 count was 322 in SHDC and 397 in ASD.

Opportunistic illness (OIs): In SHDC, 29 OIs were recorded in 25 (9%) of the 288 sampled persons – thus, an estimated 342 people living with AIDS had 397 OIs in 1998. PCP was the most common OI, occurring in 40% of persons with OIs in 1998, followed by HIV dementia in 24%, HIV wasting syndrome in 12%, and MAC in 12%. Overall OI rates were similar in ASD with an estimated 213 (10%) of 2,032 persons having one or more OI diagnoses in 1998. However, in ASD, no single OI accounted for more than 17% of those tallied. In ASD in 1998, 17% of the OIs were Kaposi's sarcoma; 15% esophageal candidiasis; 14% HIV dementia; 13% PCP; 12% CMV disease including retinitis; and 6% MAC. HARS is not a good source of information about OIs because most AIDS cases are reporting under the immunologic criteria (CD4<200/14%) before development of an OI.

Table 2. Health services and clinical data among persons with HIV/AIDS in care in King County, 1998 SHDC pilot data, weighted and adjusted

Preventive care	
Any antiretroviral use CD4 <500/VL > 10K	2981/3466 (86%)
Triple ARVT CD4 < 500/VL >10K (**most recent** regimens)	2683/3466 (77%)
HAART use most recent regimen CD4 < 500/VL>10K	1981/3466 (57%)
Any ARVT use	3556/4385 (82%)
PCP prophylaxis Current CD4 < 200	1793/2096 (86%)
MAC prophylaxis CD4 < 50	427/548 (78%)
Tuberculin skin test	2412 (55%)
Influenza vaccine	1172 (27%)
Pneumococcus vaccine	2573 (59%)
Toxoplasmosis titer	2778 (64%)
Pap smear (women only)	247 (51%)
Insurance status	
Medicaid	796 (18%)
State	210 (5%)
Private/HMO	2339 (54%)
Medicare	413 (9%)
Other	43 (1%)
Medicaid pending	53 (1%)
None documented	505 (12%)
No insurance	N/A
ADAP Drug Assistance Program	701 (16%)
HIV resistance testing	144 (3%)
Clinical/ immunologic stage	
Immunologic AIDS	2533 (58%)
Clinical AIDS	1503 (34%)
Any AIDS	2729 (63%)
No AIDS	1629 (37%)
Median CD4 count	290
Median viral load	35,419
Substance use	
Alcohol use	536 (12%)
Non-injection drug use	448 (10%)
IDU ever	691 (16%)
Current IDU	219 (5%)
Psychosocial	
Mental illness	537 (12%)
Homelessness	219 (5%)
Incarceration	64 (1%)
Psych referral	331 (8%)
Health service usage	
Mean no. hospital admissions	0.2
Mean no. ER visits	0.4
Mean no. other outpt. Visits	8.6

Substance use, mental illness, and homelessness: Alcohol problems or alcoholism were documented in 12% of persons followed by SHDC, 10% used illicit non-injection drugs, and approximately 5% had current injection drug use in 1998 compared to 16% with ever-use of injection drugs since 1977. Substance use was much higher in ASD: 30% had documented alcohol problems/alcoholism, 27% non-injection drug use, and 8% were current drug injectors in 1998.

In SHDC "severe mental illness" included depression, and was present in 12% of the cohort. In ASD mental illness was limited to psychoses and affective disorders/bipolar disease and was present in 7% of the cohort. Because depression was not classified as severe or mild-moderate, if depression was added, more than half of the ASD cohort would have had a mental illness diagnosis.

In the SHDC cohort, 5% were homeless at some point in 1998; in comparison only 1-2% of ASD and HARS cohorts were recorded as homeless.

Health services usage: In SHDC, there were an average of 8.6 outpatient visits (excluding emergency room) per person in 1998 (range 1-51; median 6 visits). Additionally, patients went to the emergency room an average of 0.4 times per year (range 0-26). The number of hospitalizations per person in 1998 ranged from zero to 7. One in 5 patients was hospitalized on average, with a mean of 7 days per hospitalization (range 1-36 days). As determined by ASD, estimated annual health services usage was a little higher with averages of 11.4 outpatient visits, 0.9 emergency room visits, and 0.4 hospitalizations per person per year.

Discussion

The findings of the Survey of HIV Disease and Care are important as they represent actual clinical practice, not the idealized setting of a clinical trial nor the potential lack of representativeness of a single medical facility.

In comparing SHDC to ASD and HARS, key findings of the SHDC pilot indicate:

- A very similar demographic profile was present for SHDC and ASD. Both cohorts had more women than HARS but were otherwise similar.
- A larger proportion of persons followed by SHDC relative to ASD had an AIDS diagnosis but the estimated proportion of persons living with AIDS in SHDC was similar to HARS.
- There was greater HAART usage documented by SHDC relative to ASD.
- Both CD4 count and viral loads were lower on average in SHDC relative to the ASD cohort. Lower viral load may be due to greater use of HAART; lower CD4 may reflect a population with later stage of illness (supported by higher percent of persons living with AIDS).
- Overall OI prevalence was similar in SHDC relative to ASD
- Nearly identical rates of death occurred for patients followed by SHDC, ASD, and HARS.
- SHDC projected an overestimation of the absolute number of deaths among persons with AIDS and underestimation of deaths among persons with HIV infection without AIDS. The estimates of specific opportunistic illness occurrence were quite inconsistent with ASD. These discrepancies are likely to be due to small numbers of events among the SHDC sample.
- Far higher proportions of privately insured patients were followed by SHDC, and more publicly insured and uninsured persons were followed by ASD.

Limitations of these comparisons include the general limitations of medical record reviews, especially missing and incomplete data. For example, for persons not classified as being prescribed a recommended therapy (e.g., HAART or OI prophylaxis), we can not be sure that the treatment was indeed prescribed but not documented in the medical record or, if documented, that abstractors were able to find the documentation. SHDC methods, which limited record reviews to a single medical facility, in general resulted in more missing data compared to ASD. In ASD, medical record reviews at 2 or more of the 9 participating facilities and use of HARS data minimizes missing demographic data. Other components of care, notably patient refusal, are important to consider when persons are not prescribed recommended care, but such data are typically not well documented in medical records and were not uniformly collected in these projects.

Another limitation was a margin of error introduced by relatively small numbers of charts sampled by SHDC being used to make inferences about larger numbers of HIV-infected persons. For example, it is clear from ASD and HARS data that some HIV-infected persons without AIDS died in 1998 but, by chance, none of the 288 persons sampled in SHDC died without AIDS, leading to an estimate of zero deaths in the SHDC among the estimated 1,629 HIV-infected persons without AIDS. As the death rate among HIV-infected persons without AIDS calculated from HARS was about 0.5% per year, SHDC sampling would need to be more robust to make inferences about rates as small as this. On the other hand, as surveillance of HIV-related deaths is over 90% complete and fewer than 100 deaths were included in HARS, the number of deaths estimated among person with AIDS in SHDC (148) appears to be too high. It may be that persons with AIDS were oversampled in SHDC due to SHDC site selection from HARS AIDS case reports, as HIV was not yet reportable in 1998.

There were fairly large differences in health services utilization with a systematic trend towards greater health service use documented by ASD relative to SHDC. This is explained by data collection at multiple facilities attended by the same patient in ASD study design. The cohort followed by ASD had documentation of greater coverage of preventive care in TB skin test screening, influenza vaccination, and pap smear screening for women. Yet for most other preventive measures, including HAART use, PCP and MAC prophylaxis, pneumococcal vaccine, and toxoplasmosis screening, the cohort followed by SHDC received more preventive care than ASD. There might have been some systematic differences in the collection of events and/or site selection that explain these differences, including a wider coverage of privately insured/HMO patients and private practitioners in SHDC relative to ASD.

There was much more substance use documented in the ASD cohort relative to SHDC. This might reflect a longer ascertainment period of ASD relative to the one-year interval of data collection period of SHDC, and or/a different population observed which has more substance use. The latter hypothesis is supported by the finding that ASD included more persons with public insurance or no coverage (who are more likely to be substance users) compared to SHDC. Additionally it is likely that the ASD cohort had more severe mental illness diagnoses, although our inability to separate out severe depression prevents a valid comparison between SHDC and ASD. Substance use and mental illness may also explain more complete antiretroviral use and OI prophylaxis in SHDC relative to ASD, as ASD providers may be working with more pressing issues of persons with multiple diagnoses before initiating difficult antiretroviral regimens.

In sum, SHDC appears promising as a relatively rapid and inexpensive method to assess population-based estimates of HIV care parameters. Such monitoring is a very useful supplement to the more limited types of data collected by HIV/AIDS surveillance. Nationwide, future sites conducting SHDC will be those with both AIDS and HIV infection reporting, which will potentially allow more representative data to be collected. However, CDC has stipulated that areas conducting ASD will not be eligible to simultaneously run SHDC. Thus, our one-year pilot of SHDC, with the availability of ASD data for comparison, was a unique chance to explore the representativeness and generalizability of both studies. We have shared our results with CDC; these findings will be useful in improving future iterations of the Survey of HIV Disease and Care.

❑ *Contributed by Susan Buskin PhD, MPH and Sharon Hopkins DVM, MPH*

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[1]CDC. Report of the NIH panel to define principles of thereapy of HIV infection and Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents. **MMWR** 1998; 47 No. RR5.

[2]CDC. 1997 USPHS/IDSA Guidelines for prevention of opportunistic infections in persons infected with human immunodeficiency virus. **MMWR** 1997;46 No. RR12.

Drugs, Alcohol, Risky Sex and HIV among Seattle Area Young Men's Survey Participants

The Young Men's Survey (YMS) was an HIV prevalence and risk behavior survey of young men who have sex with men (MSM) sponsored by the Centers for Disease Control and Prevention. It was conducted in Baltimore, Dallas, Miami, New York City, the San Francisco Bay area, and the Seattle area. The purpose of YMS was to get a better understanding of the prevalence of HIV and associated sexual and drug-use behaviors among young MSM. Phase 1 included 15-22 year old MSM and was carried out in the Seattle-King County area between October 1997 and October 1998. Findings from the Seattle-area Phase 1 survey have been previously published in the HIV/AIDS Epidemiology Report.[1, 2] This report presents results from an analysis of the association between being high on drugs or alcohol during sex and risky sexual behaviors in the 6 months prior to the study interview.[3]

Methods

The Young Men's Survey was an anonymous cross-sectional venue-based survey that used a multi-stage sampling method to recruit young men at community venues that were frequented by young MSM.[4] Sampling venues were identified through a community assessment process that continued throughout the survey in an attempt to assure inclusion of all eligible venues. Venues included street locations, bars, dance clubs, parks, beaches, and other locations or events that were popular with young MSM. During sampling events YMS interviewers approached potential participants and asked them about their age and county of residence. Those who were between 15 and 22 years old and resided in King County were invited to participate in the study. After obtaining informed consent from the participants, a trained study interviewer administered a standardized questionnaire that included questions on sociodemographic factors and sexual and drug-use behaviors, psychosocial factors, and health history. Following the interview the interviewer provided counseling for HIV, hepatitis B and other sexually transmitted diseases and drew a blood sample. Referrals to health or social services were provided as needed and all participants received free condoms and a monetary incentive.

The questionnaire asked about the frequency of use of specific drugs in the past 6 months. For each drug that participants reported having used in the past 6 months, the following question was asked: "Were you high or buzzed on '*specific drug*' during sex in the last 6 months?" The questionnaire also asked about sexual practices and sexual partners in the last 6 months, but it did not ask about drug use during specific sexual encounters.

Results

Between October 1997 and October 1998, the YMS team conducted 211 sampling events at 33 venues and intercepted 4,395 men of whom 851 were eligible for the study. A total of 528 (62%) agreed to participate and 377 (71%) were MSM. Nine were determined to be duplicate participants and 319 of the remaining 368 MSM reported sex with another man in the past 6 months and were included in this analysis.

Table 1 shows the prevalence of alcohol and drug use ever and in the last 6 months and sex while high or buzzed in the last 6 months. Virtually everybody had used alcohol and over 80% had used some form of illicit drugs in their lifetime. In the 6 months prior to the interview over two-thirds had used some other kind of drug. Marijuana was the most commonly used illicit drug (62%) followed by some form of speed/uppers/amphetamines (27%), LSD/hallucinogens (24%), ecstasy, poppers/nitrites, or cocaine (19% each). Multi-drug and alcohol use was common and only 30% reported using alcohol only and no drugs and only 2% reported using drugs only and no alcohol. Sixty-three percent reported having had sex while under the influence of drugs or alcohol, 51% while high on alcohol, 42% while high on any drug, 30% while high on marijuana, 14% while high on uppers/speed/amphetamines, 13% while high on poppers, 8% while high on ecstasy, and 7% while high on cocaine. These percentages refer to being high on each specific substance regardless of

whether or not participants also reported being high on other substances. Very few participants reported being high on just alcohol or just one specific drug during sex in the last 6 months. For example, while 51% reported being high on alcohol in the past 6 months, only 10% reported that alcohol was the only substance they were high on during sex.

Table 2 shows the prevalence of being high on alcohol or drugs or either type of substance during sex in the last 6 months by different demographic characteristics and lifetime experiences. Having been high on alcohol/drugs during sex in the last 6 months was more common among 19-22 year old YMS participants compared to 15-18 year old participants and among participants who reported having been forced to have sex, having run away from home, or having been in jail than among participants who did not report these experiences. Race and sexual identity were not related to having been high during sex. Forced sex, prior STD diagnosis or having run away were not associated with being high on alcohol during sex while a history of incarceration was.

Those who reported more risky sexual behaviors were also more likely to have been high on alcohol or drugs during sex in the last 6 months (Table 3). Having been high on alcohol/drugs during sex was more commonly reported by participants who reported 4 or more male sex partners, sex with male exchange partners, unprotected receptive anal sex, and unprotected vaginal sex in the last 6 months. These differences in sexual behaviors were more pronounced among participants who reported being high on drugs, although having been under the influence of alcohol was associated with a higher number of sex partners and with unprotected receptive anal sex. These associations all remained significant after adjusting for participant's age (Table 4).

We also looked separately at those who reported being high on marijuana and those who reported being high on uppers/speed/amphetamines during sex in the last 6 months (the drugs that most people reported being high on during sex). We found that being high on marijuana or uppers/speed/amphetamines during sex was associated with reporting 4 or more sex partners, having sex with male exchange partners, and unprotected vaginal sex (data not shown).

Eight (2.5%) of the 319 MSM were HIV seropositive. HIV seropositivity was associated with having injected drugs and specifically having injected heroin, speedball (heroin and cocaine), or uppers/amphetamines. HIV seropositivity was also associated with having ever used LSD, cocaine, or crack, or having used uppers/speed/amphetamines in the last 6 months. In addition, HIV seropositivity was associated with having been high on uppers/speed/amphetamines in the last 6 months (data not shown).

Comments

We found that drug use was common among Seattle-area YMS participants. Drug use among the YMS participants was much higher than drug use reported by Seattle high school students in the 1995 Teen Health Risk Survey.[5] Forty-eight percent of the students reported ever using marijuana compared to 77% of the YMS participants. The 1998 National Household Survey on Drug Abuse (NHSDA) conducted by the Substance Abuse and Mental Health Services Administration found that 50% of young adults 21-29 years of age reported having used drugs at least once in their life and that 11% were current users (used in the last month). We also found that being high on drugs or alcohol during sex in the last 6 months was common and was associated with higher prevalence of risky sexual practices including greater numbers of male sex partners, sex with male exchange partners, unprotected anal sex, and unprotected vaginal sex. Finally, we found that injection drug use, use of LSD, cocaine, crack, and being high on uppers/speed/amphetamines during sex was associated with HIV seropositivity.

Other studies have reported associations between use of drugs or alcohol and risky sexual behaviors in MSM. Woody et al. found that both current heavy alcohol use and current drug use were associated with unprotected sex.[6] A study from Montreal reported that alcohol/drug use before sex was associated with unprotected anal sex and another study found that non-injecting methamphetmine-using MSM were more likely to test HIV-positive than those not reporting methamphetamine use.[7, 8]

A study of Seattle-area IDUs conducted between 1988 and 1991 showed that MSM who injected amphetamines were three times as

likely to be HIV seropositive as MSM who injected other substances.[9] Results from the Seropositive Urban Men's Study (SUMS) found that men who used non-injection drugs more frequently before or during sex were more likely to report unprotected anal sex with men who were HIV seronegative or of unknown status.[10] Two reports found that men who had stopped using drugs or reduced their heavy alcohol use were not currently at increased risk of unsafe sex, indicating that emphasizing reduction in substance use could be an important part of HIV prevention.[6, 11]

The results of our analysis emphasize the need for HIV and STD prevention programs to more strongly address and emphasize the associations between drug and alcohol use during sex and risky sexual behaviors and HIV seropositivity.

❑ *Contributed by Hanne Thiede, DVM, MPH, Tom Perdue and the Phase 1 YMS Team (Stanley Brown, Allan Carandang, Leonard Dawson, Jan Fields, Patrick Gonzales, Justin Haines, David Miller, Jason Naki, Misha Williams, and Robert Yoon)*

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[2]HIV testing patterns among Seattle-area YMS participants. **HIV/AIDS Quarterly Epidemiology Report**, 2nd quarter 1999.

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[5]Seattle Public Schools 1995 Teen Health Risk Survey, April 1996.

[6]Woody GE, Donnell D, Seage GR, et al. Non-injection substance use correlates with risky sex among men having sex with men: data from HIVNET. **Drug Alcohol Depend** 1999;53:197-205.

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[10]Purcell DW, Parsons J. Substance use and sexual behavior among HIV-seropositive gay men. 12th International Conference on AIDS, Geneva, Switzerland 1998 (abstract number 23137).

[11]McCusker J, Westenhouse J, Stoddard AM, et al. Use of drugs and alcohol by homosexually active men in relation to sexual practices. **J Acquir Immune Defic Syndr** 1990;3:729-736.

Table 1. The prevalence of alcohol and drug use and being high or buzzed during sex among Seattle-area 15-22 year old YMS participants

Type of substance	Ever used n=319 (%)	Used in the last 6 months n=319 (%)	High or buzzed during sex in the last 6 months n=319 (%)
Any drug or alcohol	97.2	95.0	62.7
Alcohol	96.2	92.8	50.5
Any drug	80.9	69.6	42.0
Alcohol use only (no drug use)	16.3	30.4	9.7
Drug use only (no alcohol use)	0.9	2.2	1.6
Marijuana/hash	76.8	61.8	30.1
Uppers/speed/amphetamines	42.3	27.0	13.5
Ecstasy	34.2	19.1	7.8
LSD/hallucinogens	47.3	24.1	3.1
Poppers/nitrites	31.7	18.8	12.5
Cocaine	34.5	18.5	6.9
Downers/barbiturates	18.8	10.7	1.6
Crack	11.9	3.8	0.6
Heroin	9.4	2.5	0.6

Table 2. Sex while high on alcohol, drugs or alcohol/drugs in the last 6 months by demographic factors and lifetime experiences among Seattle-area 15-22 year old YMS participants

Sociodemographic factors and lifetime experiences	Number	Percent high on alcohol during sex last 6 months	Percent high on any drug during sex last 6 months	Percent high on alcohol or drugs during sex last 6 months
Total	319	50.5	42.0	62.7
Age				
15-18 years	92	32.6	30.4	43.5
19-22 years	227	57.7*	46.7*	70.5*
Race				
White	202	51.0	41.1	64.4
African American	27	44.4	44.4	51.9
Mixed	42	52.4	52.4	64.3
Other	48	50.0	35.4	60.4
Sexual identity				
Gay	247	49.8	42.1	62.4
Bisexual	61	55.7	41.0	65.6
Ever forced to have sex				
No	207	47.3	35.3	56.5
Yes	109	56.0	55.1*	74.3*
Ever had STD diagnosis				
No	271	49.8	38.4	60.2
Yes	47	53.2	61.7*	76.6*
Ever run away				
No	203	47.8	31.0	56.7
Yes	116	55.2	61.2*	73.3*
Ever been in jail				
No	241	47.3	34.4	57.3
Yes	78	60.3*	65.4*	79.5*

* Indicates a statistically significant difference at p<0.05 between the compared categories

Table 3. Sex while high on alcohol, drugs or alcohol/drugs during sex and sexual behaviors in the last 6 months among Seattle-area 15-22 year old YMS participants.[1]

Sexual behaviors in the last 6months	Number	Percent high on alcohol during sex last 6 months	Percent high on any drug during sex last 6 months	Percent high on alcohol or drugs during sex last 6 months
Total	319	50.5	42.0	62.7
Male sex partners				
< 4	198	43.4	31.8	54.0
≥ 4	121	62.0*	58.7*	76.9*
Male exchange partners[2]				
No	292	50.0	39.0	61.0
Yes	27	55.6	74.1*	81.5*
Unprotected anal sex w/men				
No	169	43.2	34.9	55.0
Yes	150	58.7*	50.0*	71.3*
Unprotected insertive anal sex w/men				
No	208	49.0	39.9	61.1
Yes	111	53.2	46.0	65.8
Unprotected receptive anal sex				
No	204	44.6	36.8	56.4
Yes	115	60.9*	51.3*	73.9*
Unprotected vaginal sex				
No	287	48.8	39.4	59.9
Yes	32	65.6	65.6*	87.5*

[1]The questionnaire asked if participants had been high on alcohol or drugs in the past 6 months and sexual behaviors in the past 6 months, but not about sexual behaviors during specific events where participants were high.
[2]Exchange partner includes sex partners with whom the participants exchanged drugs, money or other things one of them needed in exchange for sex.
*Indicates a statistically significant difference at p<0.05 between the compared categories

Table 4. Sexual behaviors associated with being high on alcohol, drugs, or alcohol/drugs during sex in the last 6 months among Seattle-area 15-22 year old YMS participants

Sexual behaviors in the last 6 months	High on alcohol during sex last 6 months	High on any drugs during sex last 6 months	High on alcohol or drugs during sex last 6 months
	AOR (95% CI)*	**AOR (95% CI)***	**AOR (95% CI)***
Number of male sex partners			
<4	1.0	1.0	1.0
≥4	1.8 (1.1-2.9)	2.8 (1.7-4.5)	2.4 (1.4-4.0)
Male exchange partners			
No		1.0	
Yes	NA	4.8 (2.0-12.0)	3.2 (1.2-9.0)
Unprotected anal sex			
No	1.0	1.0	1.0
Yes	1.7 (1.1-2.7)	1.8 (1.2-2.9)	1.9 (1.1-3.0)
Unprotected receptive anal sex			
No	1.0	1.0	1.0
Yes	1.8 (1.1-2.9)	1.7 (1.1- 2.8)	2.1 (1.2-3.5)
Unprotected vaginal sex			
No		1.0	1.0
Yes	NA	3.1 (1.4-6.7)	5.4 (1.8-16.1)

* The adjusted odds ratio (AOR) compares the odds of a behavior occurring among those who reported being high during sex in the last 6 months. The 95% confidence intervals (CI) is the range for the AOR. All the ORs are adjusted for age.

HAP Report: Community Summit on World AIDS Day Addresses HIV and STD in Gay and Bisexual Men

HIV/AIDS has claimed 3,543 lives in Seattle/King County since 1982; an estimated 6,000 or more persons are now living with HIV/AIDS—a number that has been increasing each year since the start of the epidemic. When HIV/AIDS first emerged as an epidemic, other sexually transmitted diseases were seen at high rates among gay and bisexual men (GBM). In 1982, 738 cases of gonorrhea and 59 cases of syphilis were diagnosed. As GBM became aware of the gravity of HIV/AIDS, and prevention strategies became more abundant and effective, risk behaviors dropped sharply. But since 1998, a number of health indicators suggest that STD, risky sexual behaviors and probably HIV are on the rise. Syphilis, a disease that public health officials had begun to consider eradicated locally, re-emerged in GBM, particularly HIV positive GBM and have returned to pre-AIDS levels. HIV prevalence in GBM attending the STD clinic also rose steadily from 1997 through 1999.

A number of factors have contributed to this resurgence of disease, including:

- Effective new HIV treatments, unveiled in 1996, have led some GBM to perceive HIV as a chronic, manageable disease. The perceived importance of maintaining safer sexual behaviors has waned, as has the fear of AIDS.
- After coping with the HIV/AIDS epidemic for 20 years, some GBM have lost the will or energy to maintain "low risk" behaviors.
- The previous norm of universal condom use is outmoded in some segments of the GBM community, and healthy behavioral norms have not yet emerged.

In this article, we will consistently refer to men who have sex with men as "gay and bisexual men" (GBM), but we acknowledge and respect the great diversity among men who have sex with men. Some identify as gay, some bisexual, some transgendered, some heterosexual. For some men, their primary identification is with an ethnic or racial group, rather than with the gay, bisexual or transgendered community. All programs serving GBM must be cognizant of these differences, and plan programs accordingly.

Community Summit Goals

The resurgence of STD and HIV in our community is unacceptable. Seattle has long been a city where public health and affected communities have partnered to develop the most effective prevention programs possible. Twenty years into the HIV/AIDS epidemic, it is clear that Public Health and the GBM community must redouble and revitalize efforts to prevent further spread of the disease. It is our firm belief that community-driven solutions will have the greatest impact. With this in mind, a joint Public Health and Community Summit was held on World AIDS Day, December 1, 2000. The stated Summit goals were:

- Community-based organizations serving the GBM population will commit to *revitalizing their efforts* to fight the STD/HIV epidemics, and will *create agendas* designed to address these epidemics.
- Summit participants will provide input to assist Public Health – Seattle & King County in using public health resources in the most effective way possible.

About 60 individuals attended, representing a broad range of community based organizations and institutions, and local, state and federal public health staff. After listening to presentations on the most current STD/HIV data and community perspectives on the epidemic, the participants worked intensively in small groups to generate feasible action steps and agendas to employ within community-based organizations and Public Health. These recommendations were shared with all participants at the close of the Summit.

Planning process

A joint Public Health and community summit meeting addressing the ongoing, two-year long

increase in the incidence of sexually transmitted diseases (STD) among GBM in Seattle-King County was originally envisioned in June 2000 by Dr. Alonzo Plough, Director, Public Health – Seattle & King County. Dr. Bob Wood, Public Health AIDS Control Officer, held a series of meetings with gay community agencies and leaders that elicited enthusiastic support for such a summit, and a strong desire to participate. A planning group consisting of representatives of the Lifelong AIDS Alliance (formerly Northwest AIDS Foundation and Chicken Soup Brigade), People of Color Against AIDS Network (POCAAN), Gay City Health Project, the Ryan White Title I Planning Council, AIDS Ministries Ecumenical Network (AMEN), the Governor's Advisory Council on HIV/AIDS (GACHA), Seattle Treatment Education Project (STEP) and Public Health, was convened in October 2000.

The Planning Group met over a two-month period and suggested a daylong meeting to include representatives from as many segments of the GBM community as possible. In addition to providing evidence about the spread of STD and HIV among GBM, and a sense of Public Health's level of concern, the group wanted to encourage participants to interact on issues in defined, facilitated, small group venues so that all would be able to provide meaningful input.

About 80 persons were invited and 62 attended the Summit, which took place at the Aljoya Conference Center in Seattle. The morning plenary session consisted of a welcome and introduction by Tom Byers (Deputy Mayor of Seattle), Dr. Plough, and Dr. Wood, followed by a series of data presentations and less formal presentations designed to generate discussion and provoke thought among audience members. The afternoon was comprised of five small groups meeting simultaneously until the final session to summarize the group discussions and recommendations and to provide closure.

HIV, STD and Behavioral Presentations

Dr. Hunter Handsfield, Public Health STD Program Director reviewed Seattle's recent history of STD among GBM and noted the re-emergence of syphilis to high levels, similar to those seen before AIDS, as well as increases in gonorrhea and chlamydia. He indicated that (since these STD are treatable) the real issue of concern driving the need for the Summit is the likely increased spread of HIV (present in 75% of the syphilis cases), which is helped by the presence of other STD. Dr. Handsfield also noted that other U.S. and European cities are showing similar increases and speculated that the cause of increasing STD may be related to GBM's complacency as new HIV therapies have become so effective or burnout around HIV/AIDS after 20 years with no cure or vaccine on the horizon.

Dr. Connie Celum, Principal Investigator of the UW HIVNet, presented data from a cross-sectional "Sleepless in Seattle" study of about 1000 GBM designed to investigate risk behaviors and their predictors. These data showed high-risk behaviors prevalent in people who had been seen in the STD Clinic as well as those not seen there. Risk behaviors were higher in HIV+ men than in those without HIV. Drug use was common and the use of poppers and crystal methamphetamine was associated with the highest risk behaviors.

Dr. Bob Geise, UW Primary Infection Clinic, reviewed data on GBM with recent HIV infection. There were no clear trends in numbers since the Clinic began in 1992 but GBM have comprised the largest percentage of clients.

Tom Lampinen, UW Men's Anal Health Study, presented data on 314 HIV+ men whose self-reported risk behaviors were followed for an average of three years in 1996-99. Unprotected anal intercourse was common but most reportedly occurred with HIV+ partners. An outbreak of syphilis in this cohort was also observed.

Dr. Bob Wood, Public Health AIDS Control Officer, presented data from an unlinked HIV seroprevalence survey repeated each year since 1988 at Public Health's STD Clinic which showed significant increases in HIV seroprevalence from 4% in 1997, to 6% in 1998 and 11% in 1999 – findings similar to those reported from San Francisco in the summer of 2000. Also, data on over 13,000 HIV seronegative GBM seen at Public Health's HIV/AIDS Program showed decreases in reported risk taking from 1988-95 followed by increases of about 25% in unprotected anal sex. Increases in unprotected sex were greater for men under age 26 and for men of color. Fi-

nally, data from the Seattle-area Young Men's Survey showed high rates of drug use, multiple sex partners and unprotected anal intercourse among GBM.

Quinten Welch, Executive Director of STEP, and John Leonard, Executive Director of Gay City, provided cultural perspectives on GBM, including a discussion of burn-out issues, substance use within the community, depression, and the need for more broadly targeted health initiatives.

Karen Hartfield, Public Health HIV Prevention Planner, provided an overview of effective clinical and behavioral interventions, including examples of locally developed materials and campaigns.

Dr. Ron Stall, Chief of the Behavioral Intervention Research Branch of the National Center for HIV, STD, & TB Prevention, CDC, provided a national perspective on increased rates of STD being seen in GBM, and discussed possible reasons for increased unsafe sexual activity.

Small Group Recommendations

Small groups convened in the afternoon and were assigned to one of five topics. They were asked to discuss specific questions and develop three recommendations to share with all Summit partcipants. The details of the primary recommendations and specific actions suggested by the working groups are not included in this report but are available from the HIV/AIDS Program office for those interested. What follows is a summary of recommendations and actions identified to date (3/7/01).

❑ Rethinking STD/HIV Clinical Services

Recommendations:

1. Develop and disseminate STD screening guidelines to providers and clients.
2. Identify and select appropriate clinic services based on qualitative community data.
3. Implement new approaches to service delivery with community input.

Action Steps: (*Specifics of how and steps already begun)*

a. Gather formative data on GBM to assist in clinical and educational services development *(CDC will assist in this effort in mid-March, 2001 through a rapid ethnographic assessment of syphilis in GBM)*
b. Clarify behavioral risks for transgendered persons *(literature already reviewed)*
c. Update STD/HIV Screening and Treatment Guidelines for Providers, including risk reduction guidelines *(This process is completed; guidelines will soon be distributed)*
d. Assess and market Seattle Gay Clinic services *(responsible agency yet to be identified)*
e. Advocate for better training for medical students *(through UW's Introduction to Clinical Medicine Course leadership)*
f. Advocate for better training for providers *(through UW's Center for Health Education & Research [AIDS Education & Training Center])*
g. Investigate new partner management approaches at Public Health sites *(Study being initiated at STD clinic, and in public health's HIV/AIDS Epidemiology Section, with CDC support)*
h. Expand substance abuse and mental health services for GBM *(through ongoing public health advocacy on this issue for the general population and the proposed Prevention Coalition [see below])*
i. Increase clinic services in bathhouse settings (With the merger of the HIV/AIDS & STD Clinical Teams, in 4-5/01 disease intervention specialist services can be moved from less productive sites)

❑ Emotional Health & Substance Abuse

Recommendations:

1. Develop new and/or revamp HIV prevention and care programs serving GBM, with emphases on emotional health, depression and chemical dependency issues. Programs should be community driven, with Public Health as an active partner/catalyst.
2. Identify collaborative partners to help fund programs. Local bars, chat lines, circuit party promoters, and national alcohol companies should be involved.
3. Convene a community coalition to focus on integration of emotional health and substance use into HIV prevention and care programs.

Action Step:

Establish a broad based GBM HIV/STD prevention coalition to standardize educational messages, examine and disseminate community norms, develop emotional health resources and develop fundraising strategies Create emotional health and substance use sub-committee *(Education Team will seek resources to acquire a 0.5 FTE person in the Education Team to staff this work)*

❑ Bathhouse & Public Sex Environment

Recommendations:

1. Expand current bathhouse coalition to include other public sex venues and bar owners. The coalition must develop a common agenda and recommend specific programs to implement.
2. Increase funding to expand services to include more education & outreach, and a more comprehensive array of services.

Action Steps:

a. Augment existing bathhouse coalition to include more public sex venues, bars and community agencies *(0.5 FTE person identified above will help facilitate this work)*
b. Gather formative data on GBM to assist in clinic and education services development *(Will seek some of these data through the CDC rapid assessment to begin in March, 2001)*
c. Increase clinic services in bathhouse settings by identifying new funds and redirecting current resources *(Staff stationed at clinical sites which currently yield low numbers of new HIV+s can be re-positioned)*
d. Augment bathhouse educational programs and increase availability of condoms and lubricants *(Will work with community partner agencies, especially the Lifelong AIDS Alliance to assure adequate supplies of condoms in bath settings)*

❑ Community Leadership and Media

Recommendations:

1. Target positive (and negative) men with messages around the importance of disclosing one's HIV status.
2. Coordinate messages across agencies, so that each agency addresses its target population with a consistent message.
3. Acknowledge that GBM use a "risk calculus" to make decisions about risk behaviors, and identify the likely variables and weights in the formula.

Action Steps:

a. Gather formative data on GBM to assist in clinic and education services development. *(See CDC rapid ethnographic assessment effort to start in March 2001, above)*
b. Establish broad based GBM HIV/STD prevention coalition to standardize educational messages, examine and disseminate community norms, develop emotional health resources and develop fundraising strategies Establish prevention message subcommittee *(See above)*
c. Develop educational campaigns and programs designed to help establish new community norms, and reduce misinformation about HIV transmission and disease

❑ Effective Resource Development

Recommendations:

1. Protect and maintain current HIV/AIDS funding, and review and realign current programs with evidence-based practices.
2. Convene a broad-based coalition to develop a funding proposal to local government.
3. Work to assure the use of HIV care resources to target HIV positive men with prevention messages.

Action Steps:

a. Establish broad based GBM HIV/STD prevention coalition to standardize educational messages, examine and disseminate community norms, develop emotional health resources and develop fundraising strategies. Establish resource development subcommittee *(See above)*
b. Develop written materials designed to increase fundraising

Conclusions

Recommendations generally fell into three categories: improvement in *clinic services*, increased *coalition building* and development of *community-driven prevention messages*. Participants believed that Public Health must pilot new case finding, partner management and clinical service models to address service access barriers. They also strongly believed that given the complexity of factors related to the resurgence of risky behaviors, Public Health and AIDS service organizations must work more closely with mental health, substance use treatment and other community systems and immediately establish a diverse coalition of agencies serving GBM to focus on the issues and action steps described in this report. Finally, participants recommended that Public Health and community organizations and leadership jointly develop new prevention messages to help mold current community norms and values.

This report will be widely disseminated, and Public Health staff and community partner agencies will monitor implementation of these new agendas and data trends. It is our belief that the conviction and spirit with which the GBM community fought the HIV epidemic in the 1980's can be recaptured and strengthened within the context of a broadly healthy community.

❑ *Contributed by Robert W. Wood MD and Karen Hartfield MPH*

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[1]Thiede H, et al. HIV Prevalence, Incidence and Risk Behaviors among Seattle-King County STD Clinic Patients, 1988-1999. **HIV/AIDS Epidemiology Report**– 1st Half – 2000. pp. 38-45.

Adult AIDS Clinical Trials Unit Report: Complications of HIV treatment get increasing attention

While some of the more traditional opportunistic infections associated with AIDS have decreased in frequency, due to improvements in antiretroviral therapy, other new complications are emerging. These include metabolic complications such as hyperlipidemia, body shape changes, and bone density loss. Some other infections, such as hepatitis C and chronic hepatitis B, are of increasing concern to persons who are co-infected with HIV. As the prognosis of HIV and life expectancy has improved, these complications have increased in significance. The Adult AIDS Clinical Trials Group (ACTU) and the UW ACTU are increasingly focusing attention on these problems.

Hyperlipidemia

The incidence, pathogenesis, and optimal management of HIV-associated hyperlipidemia are all important areas where more information is needed. The pathogenesis of hyperlipidemia in people with HIV on antiretrovirals is still under study, and is now thought to be more complex than it was thought initially (when protease inhibitor therapy was implicated as the major culprit). One of the worrisome aspects of hyperlipidemia (especially high LDL cholesterol) seen in some persons with HIV is the potential risk for accelerated atherosclerosis. Whether isolated hypertriglyceridemia is a risk factor for cardiovascular disease is controversial, but triglycerides above 200 mg/dL double the risk of coronary artery disease in persons with total cholesterol above 240 mg/dL. High triglycerides are also a risk factor for pancreatitis. Patients with HIV may also have other risk factors for cardiovascular disease such as smoking, hypertension, family history of premature cardiovascular events or low HDL. Being a male over 45 years or a female over 55 years if not using estrogen replacement is also a risk factor for atherosclerosis.

Treatment of Hyperlipidemia

In the general population, treatment of hyperlipidemia has been shown in several large studies to decease the risk of coronary events. Recommendations for treatment have been made by the National Cholesterol Education Program. These national guidelines are widely used in the United States. At present, treatment is recommended for persons with LDL cholesterol >160 mg/dL without other risk factors and for persons with LDL cholesterol >130 mg/dL if they have two additional risk factors (see list above). Even more aggressive treatment recommendations are under consideration. In some cases, hyperlipidemia may limit or result in changes in antiretroviral therapy, necessitate changes in life-style (diet, exercise), and require anti-lipid medications. Medication is used for patients with clinically significant hyperlipidemia that does not respond to measures of diet and exercise.

Seeking Patients for Treatment Study

The UW Adult ACTU is seeking patients with HIV on stable antiretroviral therapy and hyperlipidemia for a study comparing two different anti-lipid medications. The purpose of this study is to assess the efficacy and safety of these medications in patients with HIV-related hyperlipidemia. The study is comparing use of fenofibrate to pravastatin. Fenofibrate is a fibrate associated with reduction of LDL and triglycerides, and increases in HDL, and is believed by some investigators to be more potent than gemfibrozil. Pravastatin is a HMG-CoA reductase inhibitor or statin, and is metabolized by sulfation, so does not interfere with the cytochrome P450 system that is of importance for the metabolism of many antiretrovirals. This study is enrolling HIV-infected patients on a stable potent antiretroviral regimen with elevated LDL cholesterol (>130 mg/dL) and elevated triglycerides (>200 mg/dL) who have not responded sufficiently to diet and exercise and for whom treatment is indicated. So if you are a physician, don't just write a prescription for your patient – send us a referral and help us learn which therapy is better.

Study Participants Sought

Participants are being sought for several Adult AIDS Clinical Trials Unit studies. Screening tests, study medications, and laboratory and

UNIVERSITY OF WASHINGTON AIDS CLINICAL TRIALS UNIT

HARBORVIEW MEDICAL CENTER, 2 -W CLINIC, 325 9TH AVENUE, BOX 359929, SEATTLE, WA 98104 (206) 731-3184

IMMUNOLOGICAL STUDIES OPEN FOR ENROLLMENT – WINTER, 2001

TOPIC	TREATMENTS	ELIGIBILITY	LENGTH	MISCELLANEOUS	STUDY #
Immune system control of HIV infection in the brain	None	• HIV+, 18-75 yrs old • Not Pregnant • No use of street drugs	1 year; Up to 5 yrs. optional.	• Exams and labs at no cost. • Lumbar punctures (LP) reimbursed, $100 - 150 / ea.	132

OPPORTUNISTIC DISEASE & OTHER CONDITION STUDIES OPEN FOR ENROLLMENT – WINTER, 2000

TOPIC	TREATMENTS	ELIGIBILITY	LENGTH	MISC.	STUDY #
Safety and effectiveness of valganciclovir in preventing cytomegalo-virus (CMV) organ damage.	Valganciclovir	• HIV+, CMV+, and aged ≥ 13 years • CD4 < 100 / HIV RNA >400 • On HAART or not planning to start. • No CMV prophylaxis or end organ disease.	30 months (2 ½ years)	• $10 given for Step 1 visits.	5030
Use of lab tests to determine when to stop preventive therapy for CMV retinitis.	None	• HIV + and >13 years of age *AND*: • Recently diagnosed with CMV retinitis • NO ARV in 8 prior weeks.	24 weeks	• $10 paid per study visit.	5067
Carotid artery thickness in HIV+ and HIV- adults	None	• ≥18 years of age ***AND*** • HIV+, on PI's ≥2 yrs., and viral load ≤10,000 ***OR*** • HIV+, not on PI for ≥3 months, and viral load ≤10,000 ***OR*** • HIV-	2 years	• $25 paid for each ultrasound	5078
Safety and effectiveness of fenofibrate versus pravastatin for treatment of lipid abnormalities	Fenofibrate *OR* Pravastatin	• HIV+, aged ≥18, and triglycerides ≥200mg/dL(fasting) • LDL cholesterol ≥130 mg/dL (fasting) • <24 wks. of lipid-lowering drugs in the past	1 year	• Clinic visits include physical exams, blood draw, and urinalysis.	5087

Key to Terms:

3TC:	**Epivir (lamivudine)**	**d4T:**	**Zerit (stavudine)**	**HAART:**	**Highly active antiretroviral therapy**
ABC:	**Ziagen (abacavir)**	**ddC:**	**Hivid (zalcitabine)**	**NNRTI:**	**Non-nucleoside reverse transcriptase inhibitor**
APV:	**Agenerase (amprenavir)**	**EFV:**	**Sustiva (efavirenz)**	**NRTI:**	**Nucleoside reverse transcriptase inhibitor**
ARV:	**Antiretroviral**	**IDV:**	**Crixivan (indinavir)**	**PI:**	**Protease inhibitor**
AZT:	**Retrovir (zidovudine)**	**NFV:**	**Viracept (nelfinavir)**	**RTV:**	**Norvir (ritonavir)**
ddI:	**Videx (didanosine)**			**SQV:**	**Invirase (saquinavir)**

Screening tests, study medications, and laboratory and clinical monitoring that are part of our studies are free of charge.

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 Karen Novak, Jeanne Conley, or Alyssa Spingola at 731-3184 for additional information or appointments.

❑ *Contributed by Ann Collier MD*

UNIVERSITY OF WASHINGTON AIDS CLINICAL TRIALS UNIT

ANTIRETROVIRAL STUDIES OPEN FOR ENROLLMENT – WINTER, 2001

TOPIC	TREATMENTS	ELIGIBILITY	LENGTH	MISCELLANEOUS	STUDY #
Safety and anti-HIV effect of a new drug, AMD-3100 (fusion inhibitor)	• AMD-3100 is given intravenously continuously for 10 days	• 18–55 years of age • Medically stable & all lab tests within normal limits. • No changes to ARVs for >4 weeks prior to entry, **OR** not on ARVs • Viral load >5,000, CD4 >50	15 weeks	• 12 day hospitalization, reimbursement of $100/day (max. total $1,200, paid ***after study completion***)	066
Hearing Loss with AZT or ddI	None	• Starting AZT and/or ddI (with other antivirals). CD4 counts >200.	32 weeks	• $20 paid for each of 3 hearing tests.	047
Safety and effectiveness of Capravirine (NNRTI) taken with Nelfinavir (PI) and 2 NRTI's.	• Group I: Capravirine + nelfinavir + 2 new NRTI's • Group II: Capravirine placebo + nelfinavir + 2 new NRTI's	• ≥ 18 , non-pregnant & non-lactating. • Currently taking an NNRTI + an NRTI, and experiencing virologic failure. • Prior use of PI's allowed *ONLY* if switched to an NNRTI when viral load was <400 copies/mL • No prior treatment with capravirine.	1 year	• Clinic visits include brief physical exams, blood draws, body fat measurements, and electrocardiograms (ECG) of the heart	085

Effect of age on the progression of HIV disease in persons taking ARV's	• ABT-378/ritonavir (ABT-378/4) + emtricitabine (FTC) + stavudine (d4T)	• HIV+, aged ≥13 and ≤30, or ≥45
		• CD4 100-600 / Viral Load >2000
		• No prior anti-HIV medications
		• Medically stable, not pregnant, & not breastfeeding
			2 years	• Two optional sub-studies:
				  • thymus CT scan
				  • collection of genital secretions
					5015

IDV/RTV combinations for persons experiencing clinical failure with initial PIs	• Indinavir and ritonavir in two dose combinations (given twice daily) with 2 NRTIs.	• Detectable HIV RNA (≥500 to ≤100,000 copies/mL) on a protease inhibitor (PI) regimen. • No high level genotype resistance	24 weeks.	• Study supplies IDV and RTV; subject must supply the other 2 NRTIs. • $100 paid for CRC visit	5055
Effect of contraceptive medications on AZT	None	• Any CD4 or viral load • Must be on AZT, and • *Optional*: may be starting Ortho-Novum 1/35 or Depoprovera	6 weeks	• ***Women only.*** • 2 or 4 10-hr. visits • $75 reimbursement per visit	317

Physicians or potential participants can call Asha at (206) 731-3184 for information or appointments.

ACTU Web Page: http://depts.washington.edu/actu/ ***ACTU Email: actu@u.washington.edu***

Pediatric AIDS Clinical Trials Unit Report: Caution urged for use of didanosine and stavudine in pregnancy

On December 8th 2000, Boehringer-Ingelheim issued a safety alert about the risk of severe hepatotoxicity with nevirapine treatment. This statement was issued after several reports of fatal hepatoxicity among persons taking nevirapine. Patients with baseline elevated liver function tests or chronic hepatitis B and C appear to have a higher risk of developing severe hepatotoxicity on nevirapine. The risk appears to be greatest in the first 12 weeks of treatment, but may occur later.

Boehringer-Ingelheim recommends close clinical and laboratory monitoring of patients during the first 12 weeks after starting nevirapine. Clinicians and patients should watch closely for signs of clinical hepatitis, such as fatigue, malaise, anorexia, hepatomegaly, liver tenderness, jaundice or acholic stools. Clinical hepatitis should lead to the discontinuation of nevirapine even in the setting of normal liver function tests. Liver function studies should be performed prior to starting nevirapine. The optimal frequency of laboratory monitoring has not been firmly established. Some experts recommend checking liver function studies prior to dose escalation after 2 weeks of treatment, and then at 4, 6,8, and 12 weeks after initiating treatment and then every 2-3 months thereafter.

The Pediatric AIDS Clinical Trials Unit at Children's Hospital and Regional Medical Center and University of Washington currently has studies available for HIV-infected pregnant women and their infants, and HIV-infected children and adolescents. For more information, contact Dr. Jane Hitti or Deb Goldman, ARNP at Northwest Family Center (206) 720-4300 or Dr. Ann Melvin or Kathey Mohan, ARNP at the Pediatric AIDS Clinical Trials Unit at CHRMC (206) 528-5020.

❑ *Contributed by Jane Hitti MD and Kathey Mohan ARNP*

Main Requirements	Study Drug or Topic	Study Overview
Pediatric Antiretrovirals:		
HIV-infected antiretroviral naïve and experienced children aged 3 months to 21 years	**BMS-232632** (PACTG 1020A)	A phase I/II open-label, pharmacokinetic and safety study of novel protease inhibitor (BMS-232632) in combination regimens in antiretroviral therapy (ART)-naïve and experienced HIV-infected infants, children, and adolescents.
Cohort 1: ≤ 16 years of age and able to swallow pills **Cohort 2: > 3 month to ≤ 8 years (suspension**	**DMP-266 Nelfinavir** (ACTG 382) (Cohort 1 accrued) (Cohort 2 open)	Phase 1, open-label pharmacokinetic study of a new non-nucleoside reverse transcriptase inhibitor given once daily in combination with nelfinavir. Concomitant use of nucleoside reverse transcriptase inhibitors are required, but are not supplied through this protocol.
Perinatal Treatment Studies:		
Pregnant woman unable to tolerate zidovudine or choosing not to take zidovudine	**Stavudine (d4T)** (ACTG 332)	This is a Phase 1 pharmacokinetic study of stavudine given to pregnant women during pregnancy, labor and delivery and to their newborns for 6 weeks. Newborns will either receive stavudine or zidovudine. The objective is to define the appropriate stavudine dose for the pregnant woman and obtain ascertain the safety of stavudine for both the pregnant woman and newborn.
Pregnant HIV-infected women	**Saquinavir-SGC, lamivudine, zidovudine** (ACTG 386)	This is a Phase I study of the safety and correct dose of saquinavir-SGC given in combination with zidovudine and lamivudine during pregnancy and labor and delivery. Women may begin therapy at 13 weeks gestation and continue until 6 weeks postpartum.
Newborn infants born to HIV-infected pregnant women	**Increased calorie formula** (ACTG 247)	This is a randomized, double-blind, controlled study of an increased caloric density formula and its effect on growth and nutritional status of HIV-infected children. All infants born to HIV-infected women are eligible for enrollment, however infants found to be uninfected will be discontinued from the study.

Pregnant HIV-infected women	**Nelfinavir, lamivudine, zidovudine** (ACTG 353)	This is a Phase I study of the safety, tolerance and pharmacokinetics of nelfinavir given with zidovudine and lamivudine to HIV-1 infected women and their newborns. Women may have had prior nelfinavir therapy. Women are enrolled between 14-32 weeks gestation.
Newborn infants born to HIV-infected pregnant women	**GP 120 vaccine** (Study to re-open to accrual with amendment)	This Phase I study of the safety and immunogenicity of ALVA-MN120TMG vaccine given to infants born to HIV-infected women within 72 hours of birth. Infants receive additional vaccinations at 4,8, and 12 weeks of life. 18 infants receive vaccine, 6 receive placebo.
Upcoming Studies:		
HIV infected children age 1 mos to 13 years Antiretroviral-naive children starting any antiretroviral therapy. Protease inhibitor (PI)-naive children beginning a PI-containing regimen. Children with prior PI therapy who are changing antiretroviral therapy due to virologic indications and that are naïve to at least two of the agents in the new therapy regimen	**Observational study-No study treatment** (PACTG 1010)	This is a 48 week study to describe changes in measures of body composition in HIV infected children before and at 12, 24 and 48 weeks after beginning or changing antiretroviral therapy; and to describe these changes in body composition.
HIV infected children 3-12 years of age on combination antiretroviral regimen containing 2 NRTI;s alone, or in combination with a PI or NNRTI; viral load >10,000	**T-20, a Fusion inhibitor** (PACTG 1005)	This is a phase I/II study to obtain preliminary information on the safety, tolerability and pharmacokinetics of multiple doses of T-20 given as a single IV bolus, a single subcutaneous injection and as chronic twice-daily subcutaneous injections in HIV-1 infected children. The study will also provide preliminary information on the antiretroviral activity of T-20 when given to children with viral loads >10,000 who are on PI or PI-sparing antiretroviral regimen. This is a 24 weeks study.
Natural History Studies:		
HIV-infected, severely immunocompromised (CD4% < 10%)children aged 4-17 years initiating open-label HAART therapy.	**Effects of HAART on immune reconstitution** (P1006)	P1006 is a study designed to measure how well the immune system recovers once aggressive antiretroviral medications are started. No antiretroviral medications will be provided as part of this study. Children will receive hepatitis A and tetanus vaccines as part of the study; response to these vaccines will be used as a measure of immune function.
HIV-negative, non-exposed, normal children aged 0-18 years	**Purpose to obtain normal ranges of lymphocyte subsets in children.** (P1009)	P 1009 is an observational, cross-sectional study to obtain the normal range of lymphocyte subsets in children. Study involves a one time blood draw from children undergoing elective surgeries or having blood taken for other non-illness associated purposes.
HIV-infected young persons, >8years up to 22 years of age, who did acquire infection perinatally	**Effects of HAART on immune reconstitution and viral dynamics.** (ACTG 381)	This is a non-randomized, observational study to define the immune reconstitution that occurs following institution of Highly Active Antiretroviral Therapy (HAART) in the recently infected adolescent. The study objective is to determine if, controlling for viral load at baseline, there is a positive correlation between baseline immunologic status and the virologic and immunologic response to HAART at 1,2,and 3 years after initiation of HAART.
Pregnant HIV-infected women and their newborn infants	**No treatment** (ACTG 367)	This is a chart abstraction study to capture data about the clinical management of HIV infection in pregnant HIV-1 women and their infants. This information will be useful in the design of clinical trials to treat HIV-I in pregnant women and to prevent transmission of HIV-1 to infants.
Infants of women who were	**Observational study to look**	Open to all infants and children currently or previously participating

For further information contact: Lisa Frenkel MD or Kathey Mohan ARNP at voice (206)526-2116/ fax (206)527-3890

AIDS Vaccine Evaluation Unit Report: Launching the third Phase II trial of HIV vaccines

The Vaccine Trials Unit is launching the third Phase II trial of HIV vaccines in Seattle. This is an 18 month study of two vaccines in combined regimens: a canarypox vaccine from Aventis Pasteur and AIDSVAXTM from VaxGen. Healthy HIV negative adults at all risk levels will be enrolled. Several Phase I trials involving new vaccine approaches are expected this year.

We are also participating in two Merck & Co., Inc., Phase I protocols using an investigational HIV-1 gag DNA vaccine. One study is for adults living with HIV who are on HAART with CD4 counts over 500 and undetectable viral loads for at least 12 months. Another study, projected to open in January, will enroll healthy HIV negative adults and combine the DNA vaccine with a vector boost. These are 26 month trials.

We currently need volunteers to take part in these studies, which require a commitment of 18-26 months. Potential subjects should call (206)667-2300. In each study, some people will not receive an active vaccine (all studies are placebo-controlled and double-blinded).

Clinic investigators are also involved in ancillary studies in HIV immunology which complement the vaccine trials. Two cohort studies directed by Dr. Julie McElrath are ongoing. One study follows people who are multiply exposed to HIV through sexual contacts but who remain seronegative. Another study follows people infected with HIV who are long term nonprogressors.

We are also enrolling healthy, HIV-negative mutually monogamous gay men to serve as control subjects for the immunology studies. Volunteers donate blood and semen only and do not receive vaccines. Participants would ideally be enrolled for five years with visits around every three months. Potential subjects should call (206)667-2398 and ask Jean Lang Lee, ARNP (jlang@u.washington .edu) about serving as a control.

We welcome Rachael McClennen, who joins the AVEU as the research coordinator for our satellite site in Lima, Peru. Trained at the Harvard School of Public Health, she coordinates regulatory compliance and assists with implementation of HIV prevention trials and vaccine trials in Peru.

How can we reach your community? Let us know when we can schedule an HIV vaccine trials briefing for your small group, class, or organization so we can work together to involve the community in finding an HIV vaccine for the world. Contact David Berger, RN at (206)667-2344 or (dberger@u.washington.edu). Explore our website and consider a link from yours: http://depts.washington.edu/vaccine.

❑ *Contributed by Marnie Elizaga MD*

AIDS Vaccine Evaluation Unit

http://depts.washington.edu/vaccine

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Volunteers Needed
Must be 18-60 years of age, healthy, HIV-negative, and available for 18 months to two years. Please call (206)667-2300 for more information.