



Recommendations and Reports

Volume No. 2 Number 2

October 1, 1998

Table of Contents

[Authors](#)

[Acknowledgments](#)

[AIDS and HIV Infection in Alaska Mode of Exposure to HIV](#)

[Gender](#)

[Race/Ethnicity](#)

[Age](#)

[Residence at Diagnosis](#)

[HIV/AIDS Mortality](#)

[Recent vs. Cumulative Cases of AIDS](#)

[Use, Source and Limitations of AIDS Surveillance Data](#)

[HIV Infection](#)

[HIV Testing Conducted through the State Laboratory](#)

[Seroprevalence Surveys](#)

[Other HIV Data](#)

[Estimates of HIV and AIDS Prevalence in Alaska](#)

[Implications for HIV Prevention and Targeting Services](#)

[Partner Notification Services](#)

[Targeting HIV Counseling and Testing](#)

[Coordinating HIV Prevention and Care](#)

[Tuberculosis and HIV/AIDS](#)

[Sexually Transmitted Diseases \(STDs\) and HIV/AIDS](#)

[HIV Prevention Planning](#)

[Summary](#)

[Recommendations](#)

[References](#)

Authors:

Christine Kirk, B.A.
Wendy Craytor, M.B.A., M.P.H.
John Middaugh, M.D.

Section of Epidemiology
Division of Public Health
Department of Social Services
State of Alaska

Acknowledgments: The authors especially thank

Noel Rea - *for providing AIDS and HIV Surveillance Data;*
Duane Fridley - *for Data Analysis Support;*
Coleen Greenshields and Dave Worrell - *for Graphics Production;*
Luann Younker - *for Graphics and Secretarial Preparation*

[Table of Contents](#)

AIDS and HIV Infection in Alaska

This report reviews data on the prevalence of acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) in Alaska, provides comparison with national data, and examines recent trends in AIDS cases. Since Alaska case numbers are relatively small, these data should be interpreted in the context of cumulative scientific knowledge about HIV/AIDS. National data cited below are drawn from publications of the Centers for Disease Control and Prevention (CDC).

PREVALENCE OF AIDS AND HIV IN ALASKA AND THE UNITED STATES

AIDS

From January 1, 1982 through December 31, 1997, a cumulative total of 412 cases of AIDS were reported among individuals whose residence was Alaska at the time of diagnosis. In the U.S., a cumulative total of 641,086 cases of AIDS were reported from January 1981 through December 1997. As of December 1997, Alaska ranked 45th among the states in total number of cases and 32nd by annual rate (8.5 per 100,000 population). ¹Alaska is a low prevalence state for AIDS.

Mode of Exposure to HIV (Table 1 and Figure 1)

Of the 407 adult/adolescent Alaska AIDS cases, 302 cases (74%) were among individuals whose exposure was male-male sex, injection drug use, or both.

Of all Alaska AIDS cases, 5 cases (1%) were reported in children less than 13 years old at the time of diagnosis.

Figure 1. Alaska AIDS cases by exposure category, through December 1997

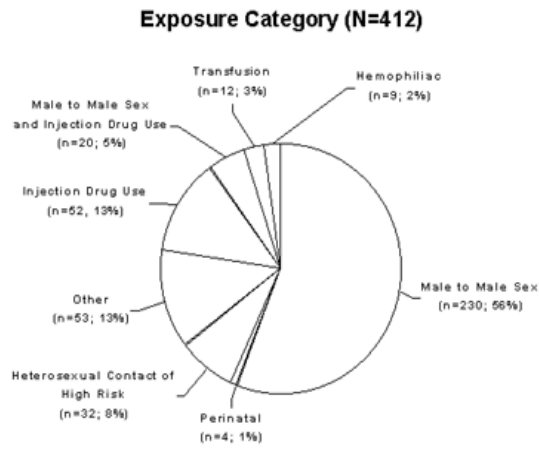


Table 1. AIDS cases by exposure category, through December 1997, Alaska and United States¹

	Alaska		United States	
	Number	Percent	Number	Percent
Adult/adolescent exposure category				
Men who have sex with men	230	(57%)	309,247	(49%)
Injecting drug use	52	(13%)	161,872	(26%)
Heterosexual contact	32	(8%)	58,884	(9%)
Men who have sex with men and inject drugs	20	(5%)	40,534	(6%)
Blood transfusion, etc.	12	(3%)	8,214	(1%)
Hemophilia	9	(2%)	4,689	(1%)
*Other/risk not reported or identified	52	(13%)	49,560	(8%)
Adult/adolescent sub-total	407		633,000	
Pediatric (<13 years old) exposure category				
Mother with/at risk for HIV infection	4	(80%)	7,335	(91%)
Hemophilia	0	(0%)	233	(3%)
Blood transfusion, etc	0	(0%)	374	(5%)
*Other/risk not reported or identified	1	(20%)	144	(2%)
Pediatric sub-total	5		8,086	
Total (all AIDS cases)	412		641,086	

*The "other" category is defined nationally to include: heterosexual contact with person(s) of unknown risk; occupationally exposed health care workers, and persons for whom a risk factor has not yet been determined. The number of individuals with AIDS whose exposure is initially reported as "Other/Risk Not Identified" has increased since the 1993 case definition was implemented. Most cases will be reclassified into an identified risk category after case investigation. Of the remainder, individuals may have died prior to interview; been lost to follow-up; or have other obstacles to determination of mode of exposure.

[Table of Contents](#)

Gender (Table 2)

Female Of 412 Alaska AIDS cases, 56 cases (14%) were females. The number of cases of AIDS among women in Alaska and in the U.S. has increased in recent years, although it remains considerably smaller than the number of cases among men.

Male Of 412 Alaska AIDS cases, 356 cases (86%) were males.

Table 2. Adult/adolescent AIDS cases by sex, through December 1997, Alaska and United States¹

	Alaska		United States	
	Number	%	Number	%
AIDS cases by sex				
Males				
Pediatric (<13 years)	3	(60%)	4,171	(52%)
Adult/adolescent	353	(87%)	534,532	(84%)
Total Males	356	(86%)	538,703	(84%)
Females				
Pediatric (<13 years)	2	(40%)	3,915	(48%)
Adult/adolescent	54	(13%)	98,468	(16%)
Total Females	56	(14%)	102,383	(16%)
Totals				
Pediatric (<13 years)	5	(100%)	8,086	(100%)
Adult/adolescent	407	(100%)	633,000	(100%)
Total cases	412	(100%)	641,086	(100%)

Race/Ethnicity (Tables 3 and 4, and Figure 2)

AIDS affects individuals in all racial and ethnic groups in Alaska. Validation studies in Alaska show that racial misclassification has not been a factor in classifying Alaska AIDS cases, although it has been a problem in other areas of the U.S.

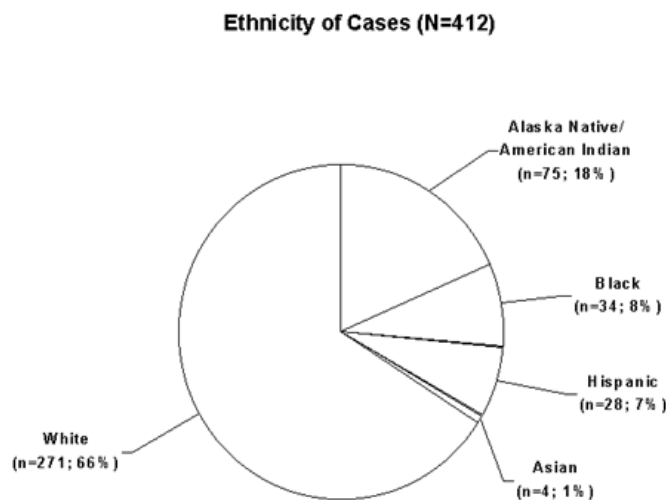
Table 3. AIDS cases by race/ethnicity, through December 1997, Alaska and United States¹

Race/ethnicity	Alaska		United States	
	Number	%	Number	%
Amer. Indian/AK Native	75	(18%)	1,783	(<1%)
Asian/Pacific Islander	4	(1%)	4,589	(<1%)
Black	34	(8%)	230,029	(36%)
Hispanic	28	(7%)	115,354	(18%)
White	271	(66%)	288,541	(45%)
Unknown	0	(0%)	790	(<1%)
Total	412		641,086	

Table 4. Adult/adolescent AIDS cases by race/ethnicity and gender, through December 1997, Alaska

Race/ethnicity	Males		Females	
	Number	%	Number	%
Amer. Indian/AK Native	56	(16%)	18	(33%)
Asian/Pacific Islander	2	(<1%)	2	(4%)
Black	25	(7%)	7	(13%)
Hispanic	25	(7%)	3	(6%)
White	245	(70%)	24	(44%)
Unknown	0	(0%)	0	(0%)
Total	353	100%	54	100%

Figure 2. Alaska AIDS cases by race/ethnicity, through December, 1997



The Alaska Department of Labor estimates Alaska's 1997 population proportions by race as follows: Whites constitute 74.3% of the state's population, Alaska Natives/American Indians 16.7%, Blacks 4.5%, and Asian/Pacific Islanders 4.6%.² In these Department of Labor estimates, individuals of Hispanic ethnicity are included within estimates of those whose race is White or Black (rather than estimating White and Black persons of Hispanic ethnicity separately). The Department of Labor estimates the 1997 Hispanic population at 4.5% of the Alaskan total.

Based upon these Alaskan population figures, Blacks and persons of Hispanic ethnicity are over-represented among AIDS cases (Blacks=8% of AIDS cases, 4.5% of population; Hispanics = 7% of AIDS cases, 4.5% of population). Alaskan Natives are slightly over-represented in Alaska cases of AIDS (18% of reported cases; 16.7 % of population). The proportion of adult/adolescent AIDS cases among American Indians/Alaska Natives and Blacks is much higher among females (46% of female cases are AN/AI or Black) than among males (23% of male cases are AN/AI or Black) (Table 4).

The Centers for Disease Control and Prevention (CDC) examined the national prevalence of HIV/AIDS among Alaska Natives/American Indians.³ Of the 641,086 cases of AIDS reported to CDC through December 1997, 1,783 (0.3%) occurred among American Indians/Alaska Natives. As compared to all persons with AIDS, Alaska Natives/American Indians with AIDS were:

- more likely to be aged 20–29 and less likely to be 40-49;

- less likely to live in a metropolitan area and more likely to live in a rural area; and
- likely to live in one of the five states of California, Oklahoma, Washington, Arizona, or Alaska.

Nationally, the ways in which Alaska Natives/ American Indians with AIDS became infected with HIV were similar to those of all persons with AIDS in the U. S. The most common mode of exposure was male-male sex (49% of Alaska Native/ American Indian cases vs. 48% of all U.S. cases). This risk was followed by injection drug use (20% vs. 25% of all cases) and men who have sex with men and also inject drugs (14% vs. 6% of all U.S. cases).

[Table of Contents](#)

Age (Table 5)

The time from infection with HIV to development of AIDS may be quite prolonged. Current estimates place the average incubation period at 7-10 years. A person diagnosed with AIDS in his or her twenties or thirties was therefore likely to have been infected with HIV as a teen or young adult.

Table 5. AIDS cases by age at diagnosis, through December 1997, Alaska and United States¹

Age at diagnosis	Alaska		United States	
	Number	%	Number	%
< 13 years	5	(1%)	8,086	(1%)
13-19 years	2	(<1%)	3,130	(<1%)
20-29 years	79	(19%)	111,368	(17%)
30-39 years	195	(47%)	290,093	(45%)
40-49 years	95	(23%)	162,176	(25%)
50+ years	36	(9%)	66,232	(10%)
Unknown	0	(0%)	1	--
Total	412		641,086	

[Table of Contents](#)

Residence at Diagnosis (Figure 3)

Of the 412 Alaska AIDS cases, 272 individuals (66%) stated their residence at the time of diagnosis as Anchorage. Of the 412 AIDS cases, 328 cases (80%) were from our three largest cities (Anchorage, Fairbanks, Juneau); 369 cases (90%) cited either one of these cities or the Southcentral region of Alaska (Matanuska-Susitna Valley or Kenai Peninsula) as their residence at time of diagnosis. The remaining 43 cases (10%) were distributed throughout the state. Comparison of these data with the distribution of population in Alaska shows that Anchorage is over-represented in AIDS cases.

Figure 3. Alaska AIDS cases by census area of residence, through December, 1997

Cumulative Cases by Census Area of Residence at Diagnosis, N =412



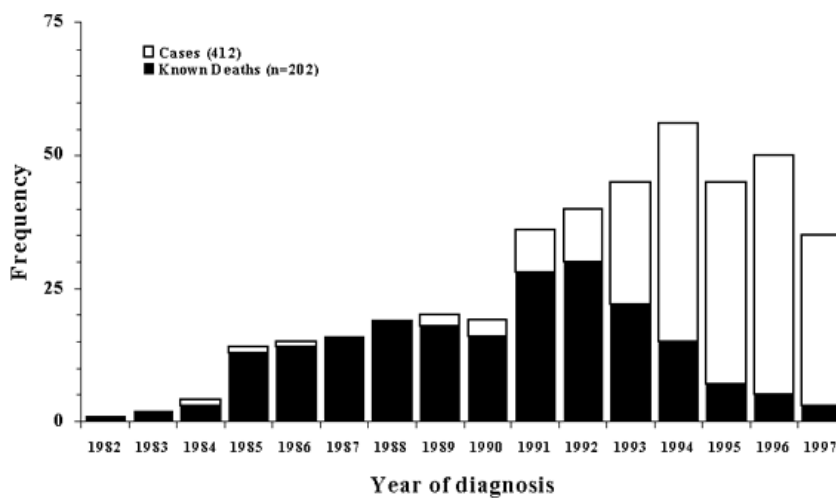
[Table of Contents](#)

HIV/AIDS Mortality (Tables 6 and 7 and Figures 4 and 5)

Of the 412 AIDS cases reported in Alaska through December 31, 1997, 202 (49%) of the individuals are known to have died. Table 6 and Figure 4 show the number of deaths known among the persons diagnosed with AIDS each year, by the year of diagnosis.

Figure 4. Alaska AIDS Cases and Known Deaths by Year of Diagnosis: 1982-1997

Cases and Known Deaths by Year of Diagnosis, N=412



Until 1991, AIDS did not rank within the top 15 leading causes of death in Alaska. HIV/AIDS moved out of the 15 leading causes again in 1996 (to 16th). In the U.S., AIDS was first ranked (11th) among the leading causes of death in 1993, and it ranked as the 8th leading cause of death in the U.S. overall in 1996. AIDS ranked as the leading cause of death for persons aged 25-44 nationwide from 1992-1995, and was the second leading cause of death in that age group in 1996.

Table 6. Alaska AIDS Cases and Known Deaths by Year of Diagnosis: 1982-1997

Cases and Known Deaths by Year of Diagnosis, N = 412		
Year	Cases	Deaths
1982	1	1
1983	2	2
1984	4	3
1985	14	13
1986	15	14
1987	16	16
1988	19	18
1989	20	18
1990	19	16
1991	36	27
1992	40	30
1993	45	20
1994	56	14
1995	44	4
1996	48	4
1997	33	2
Total	412	202

Table 7 shows the number of deaths attributable to HIV infection among individuals whose residence was Alaska at the time of death, by the year in which the death occurred. Table 7 reflects data from death certificates recorded in the Alaska Bureau of Vital Statistics.

Table 7. Alaska Deaths Attributed to HIV Infection* by Year of Death: 1982-1996

Year	HIV/AIDS Deaths in that year
1982	0
1983	0
1984	0
1985	0
1986	7
1987	7
1988	7
1989	8
1990	11
1991	16
1992	20
1993	26
1994	21
1995	30
1996	16

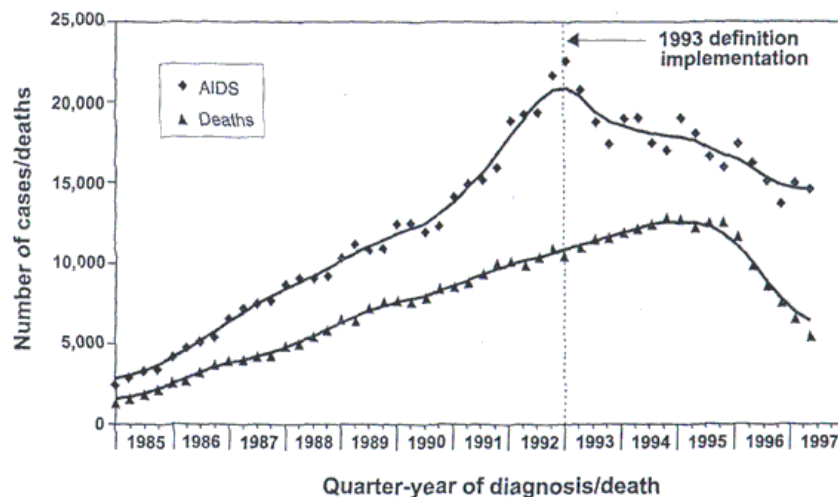
*ICD Codes 042-044

National data show a marked reduction in deaths (Figure 5) and new cases of AIDS. Alaska deaths from AIDS and HIV-related causes also declined in 1996 (Table 7). This reduction in morbidity and mortality due to AIDS has been attributed to the use of more intensive combination antiretroviral therapies, including protease inhibitors.⁵

Nationally, these recent decreases in AIDS morbidity and mortality have not been accompanied by a concurrent decrease in new HIV infections. New HIV infections have remained level or increased.⁶

Figure 5. Estimated incidence of AIDS and deaths of persons with AIDS, adjusted for delays in reporting, by quarter-year of diagnosis/death, United States, January 1985 through June 1997

(source: CDC *HIV/AIDS Surveillance Report*, 1997; Vol. 9, No. 2)



[Table of Contents](#)

Recent vs. Cumulative Cases of AIDS

We analyzed data on AIDS cases reported from January 1, 1996, through December 31, 1997 to determine whether the characteristics of recent cases differed from those reflected in the cumulative data. The highest risk exposure categories for both AIDS and HIV infection have not changed over time. In Alaska, risk is still greatest for men who have sex with men and injection drug users. However, the characteristics of individuals within these exposure categories, and the proportions of cases within exposure categories, have shown some changes in recent years (Figures 6-9).

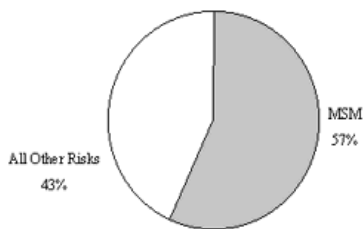
Figure 6. Recent vs cumulative AIDS cases among men who have sex with men (MSM)

MSM remain the largest proportion of AIDS cases in Alaska, although the overall proportion of MSM cases has declined:

Cumulative (1/82-12/97):

- 57% of adult/adolescent cases (230 of 407)

Cumulative Cases
(1/82-12/97) N=407



Recent (1/96-12/97):

- 45% of adult/adolescent cases (36 of 80)

Recent Cases
(1/96-12/97) N=80

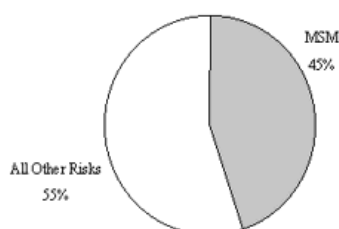


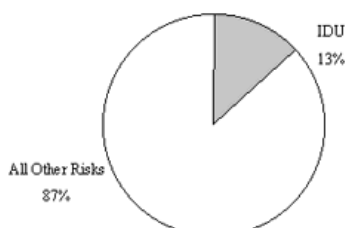
Figure 7. Recent vs cumulative AIDS cases among injection drug users (IDU)

The proportion of AIDS cases attributable to sharing equipment for injection drug use (IDU) has increased:

Cumulative (1/82-12/97):

- 13% of adult/adolescent cases (52 of 407)

Cumulative Cases
(1/82-12/97) N=407



Recent (1/96-12/97):

- 21% of adult/adolescent cases (17 of 80)

Recent Cases
(1/96-12/97) N=80

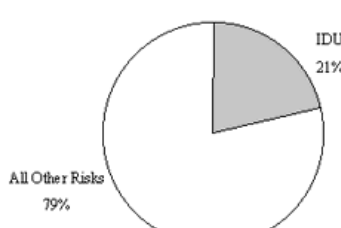
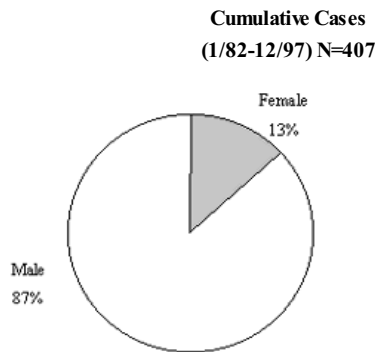


Figure 8. Recent vs cumulative AIDS cases among women

In Alaska, a comparison of recent and cumulative data shows changes in the distribution of cases similar to national trends: an increasing percentage of adult/adolescent Alaska AIDS cases are in females, and among these women, an increased proportion have been exposed through injection drug use. Females with AIDS:

Cumulative (1/82-12/97):

- 13% of all adult/adolescent cases (54 of 407)



Recent (1/96-12/97):

- 19% of adult/adolescent cases (15 of 80)

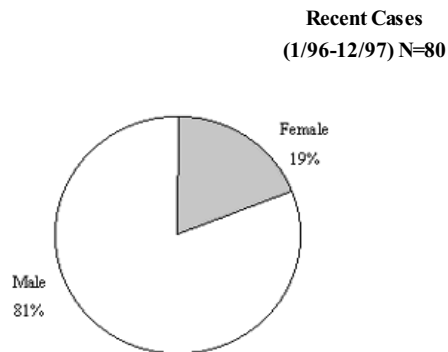
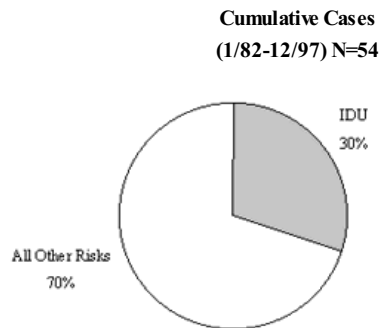


Figure 9. Recent vs cumulative AIDS cases among female injection drug users (IDU)

Female injection drug users with AIDS:

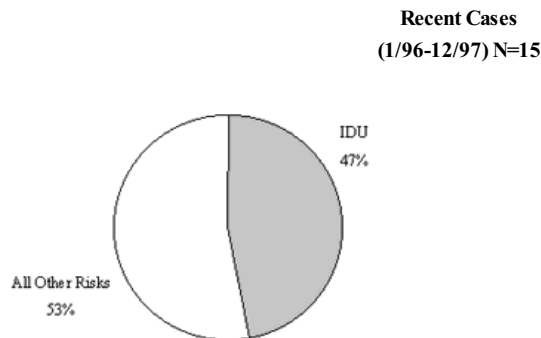
Cumulative (1/82-12/97):

- 30% of adult/adolescent female cases (16 of 54)



Recent (1/96-12/97):

- 47% of adult/adolescent female cases (7 of 15)



[Table of Contents](#)

Use, Source and Limitations of AIDS Surveillance Data

Surveillance data on AIDS are collected in order to monitor the course of the epidemic. Within Alaska, aggregated AIDS case data allow state-level characterization of the epidemic. Alaska data on the number of cases and demographic and risk characteristics are shared with the Centers for Disease Control and Prevention (CDC), and contribute to the national data cited throughout this report, as well as national planning and resource allocation decisions. Neither names nor other identifying information are reported to CDC.

In Alaska, surveillance information about AIDS is obtained primarily from reporting of AIDS cases by health care providers, as required under the Alaska Administrative Code (7 AAC 27.005). In addition to name, disease, and provider, AIDS case reports include demographic information and risk/mode of exposure to HIV infection, if known.

AIDS case reports are reviewed for completeness, and the provider contacted for any additional information needed, to ensure that the provider has information about medical and support services available to the client, and to offer partner notification services. Case reports are confidential and are physically and electronically secured by the State.

The Section of Epidemiology publishes cumulative Alaska AIDS case data semiannually in *Epidemiology Bulletins*. The *Bulletins* present aggregate data in order to protect confidentiality and prevent unintentional identification of any individual.

Individual AIDS cases are shown as cases in the year in which they would have met the 1993 CDC case definition (date of diagnosis), regardless of the year in which they are reported. An individual is considered a case in the state where he or she officially resides at the time of diagnosis, regardless of where the diagnosis occurs. With named reporting, duplicates can be eliminated from the database and completeness of reporting evaluated.

Validation studies have indicated that Alaska AIDS case data have been quite complete over time. Nationally, AIDS cases data are also considered among the most complete of all disease data. Over 85% of all AIDS cases nationwide are reported before or at the time of death.¹

AIDS case data identify trends and recent changes in newly diagnosed and reported AIDS cases. However, as recently noted in the CDC *Morbidity and Mortality Weekly Report*,⁶ "...as a result of improvements in treatment and care of persons infected with human immunodeficiency virus (HIV), surveillance of AIDS alone no longer accurately reflects the magnitude or direction of the epidemic." This is because the median time from HIV infection to AIDS, now seven to ten years or more, is likely to grow longer as antiretroviral treatments and prophylaxis against opportunistic infections continue to improve.

While AIDS data remain useful for care and service planning, and still provide important information for use in prevention planning, they may no longer provide sufficient information for guiding future prevention efforts. In fact, as treatment improves, and AIDS case data continue to become more "out-dated" in reflecting the current path of the epidemic, it is increasingly important to gain information about new HIV infections.

[Table of Contents](#)

HIV INFECTION

HIV infection without AIDS is not currently a reportable condition in Alaska. In conjunction with the current update of disease reporting regulations, the Alaska Division of Public Health has proposed adding HIV infection to the list of over 40 diseases which are reportable by name.

Although HIV is not currently reportable in Alaska, several sources of data on the prevalence of HIV infection are available to help monitor the epidemic and to guide prevention activities. HIV reportability is not a prerequisite for providers or patients to request AIDS/STD Program assistance in partner notification or to assist HIV positive people and their families to obtain supportive services.

[Table of Contents](#)

HIV Testing Conducted through the State Laboratory (Table 8)

HIV antibody tests have been available to providers at no cost through the State Virology Laboratory since 1985. From May 1, 1985 through December 31, 1997, 110,788 individuals have been tested through the Section of Laboratories, Division of Public Health, with 672 (0.6%) confirmed to be HIV-infected. Of 50,985 males tested, 564 (1.1%) are HIV positive; of 59,144 women tested, 104 (0.2%) are HIV positive; sex is not specified for 659 people, 4 (0.6%) of whom are HIV positive.

The distribution of the 672 persons testing HIV positive between May 1, 1985 and December 31, 1997, by ethnicity and exposure category, is shown in Table 8.

Table 8. HIV testing by exposure category and ethnicity, Alaska, May 1985-December 1997.

HIV Testing by Exposure Category and Ethnicity
(Number Positive, Number Tested, Percent Positive)
For Period May 1, 1985 thru December 31, 1997

Exposure Category	White			Native American (Alaska Native)			Black			Hispanic			Other			Not Specified			Total		
	Pos.	Tested	(%)	Pos.	Tested	(%)	Pos.	Tested	(%)	Pos.	Tested	(%)	Pos.	Tested	(%)	Pos.	Tested	(%)	Pos.	Tested	(%)
Bisexual/Male	228	1,947	11.7	30	382	7.9	18	119	15.1	16	83	19.3	7	56	12.5	4	38	10.5	303	2,625	11.5
IV Drug User	26	2,590	1.0	2	657	0.3	13	229	5.7	5	68	7.4	0	50	0.0	2	69	2.9	48	3,663	1.3
Heterosexual Contact of Person without at Risk of Aids	6	2,641	0.2	5	594	0.8	3	217	1.4	1	98	1.0	0	75	0.0	0	64	0.0	15	3,689	0.4
Heroin/Alc	7	21	33.3	0	4	0.0	0	0	0.0	0	1	0.0	0	2	0.0	0	0	0.0	7	28	25.0
Transfusion with Blood/Blood Products	8	1,141	0.7	4	370	1.1	0	52	0.0	0	19	0.0	0	29	0.0	0	51	0.0	12	1,662	0.7
All Others	139	56,467	0.2	76	25,037	0.3	35	5,470	0.6	19	2,561	0.7	8	3,031	0.3	10	6,535	0.2	287	99,121	0.3
Total	414	64,807	0.6	117	27,064	0.4	69	6,087	1.1	41	2,830	1.4	15	3,243	0.5	16	6,757	0.2	672	110,788	0.6

Certain limitations should be considered in evaluating these HIV testing data. HIV exposure/risk behavior may be under-disclosed to the provider in the testing encounter (e.g., the individual may choose not to disclose exposure mode due to fears about confidentiality or discrimination; an individual may not self-identify as homosexual or bisexual even if some sexual contacts are same sex). In reviewing data on HIV positivity by race/ethnicity, one should be mindful that providers may recommend testing differently to people of different races/ethnicities, health-care seeking behavior may vary across cultures, and access to testing may vary by location and other factors. Finally, the chance of counting duplicate tests for the same individual is minimized by comparing cases' demographic and risk factors. In the absence of named reporting or other reliable individual identifier, some duplicate testing data may exist.

Cumulative HIV testing data through December 31, 1997 show that the highest percentages of those tested who are HIV positive are among persons aged 20-29 (0.6% of those tested in this age group are HIV positive), 30-39 (0.8%), and 40-49 years (0.7%). These data are consistent with the distribution of Alaska AIDS cases (allowing average time for progression from HIV infection to AIDS).

Although the number of individuals tested through the State Laboratory increased steadily between 1985 and 1992, the percentage of those tested who were HIV positive declined each year until 1992: in 1985, 9.9% of those tested were HIV antibody-positive; in 1992, 0.3% were HIV positive. The overall numbers of individuals tested declined slightly from 1992 through 1995, and increased in 1996. The percent of those tested who have been HIV positive remained stable at 0.3% through 1996, and declined slightly (to 0.2%) in 1997. The recent lower rates of HIV positive test results (as compared to earlier years) among persons tested through the State Laboratory may reflect a need for increased outreach to those at highest risk rather than a decline in the number of persons newly infected.

Since 1988, data have been collected for those individuals who identify their risk as sex with a known HIV positive person. There has been a steady increase in the number of individuals identifying this as their exposure over time. In 1988, one (4.4%) of the 23 individuals who identified themselves as having had sex with an HIV positive person tested positive, while 11 (8.0%) of the 138 individuals so identified in 1996 tested positive. The greatest proportion of individuals in any behavioral risk category who are HIV positive is found among those whose risk is contact to a known HIV positive person.

[Table of Contents](#)

Seroprevalence Surveys

Seroprevalence surveys are surveillance methods which involve HIV testing among defined populations. Seroprevalence surveys conducted in Alaska sub-populations have included the Survey in Childbearing Women, universal screening for military and Job Corps applicants, and surveys conducted by the Indian Health Service. Data from these sources follow:

Survey of Childbearing Women: Alaska began participating in the national HIV seroprevalence Survey of Childbearing Women (SCBW) in February 1990. Blood samples are collected from all Alaska newborns for required metabolic screening tests. In this blinded survey, after the required tests are completed, the samples are stripped of identifiers and then tested for antibodies to HIV. A positive antibody test indicates that the mother has HIV infection (not necessarily that the child is infected, since newborns carry their mothers' antibodies). Funding for this survey, the only population-based HIV survey in Alaska and most other states, was suspended nationwide by CDC in 1995.

SCBW data confirmed a relatively low prevalence of HIV infection among women giving birth to live infants in Alaska through 1995 (positivity range of 0.0%-0.3% HIV+; range from 0-4 HIV+ births in one year). These data are supported by the relatively

low prevalence of HIV among women seeking HIV testing and counseling in facilities which use the State Laboratory (0.2%).

Civilian Applicants for Military Service: The U.S. Department of Defense screens all civilian applicants for military service for HIV infection. Data have been shared with the State for the period from October 1985 through December 1997: three (0.02%) of 16,895 applicants screened in Alaska have been HIV positive. All three are male; one is aged 20-24 and two are age 30 or older; one is White, one Black, and one is of unspecified race.

Job Corps: Through 1995, all Job Corps applicants were screened for HIV. In 1996 this practice was discontinued. Alaska's Job Corps seroprevalence data for the period January 1988 through December 1994 indicate that, of 1,517 applicants tested, only one (0.07%) was HIV positive.

Seroprevalence Surveys Conducted through the Indian Health Service: The Indian Health Service/Alaska Area Native Health Service conducted, in conjunction with most Native Health Corporations, blinded seroprevalence testing on first and third trimester prenatal patients, STD patients, and patients admitted to substance abuse treatment programs in multiple Alaska regions between April 1989 and September 1993. The highest HIV positivity was found among men presenting for examination for sexually transmitted diseases. Of the men presenting for this service between April 1989 and August 1992, 3.6% (7 of 193 men) tested positive for HIV.

[Table of Contents](#)

Other HIV Data

Blood Bank of Alaska: All individuals seeking to donate blood to the Blood Bank of Alaska are tested for HIV infection. The Blood Bank reports that 2 of 162,947 (.001%) units of blood donated between the onset of HIV screening in 1985 through December 31, 1997 have been HIV antibody positive. The donor base consists of approximately 5,000 persons.

UAA Drug Abuse Research Field Station (DARFS): The University of Alaska Anchorage has received federal research grants to study behavior change among injection drug users. In Anchorage, DARFS provides HIV counseling and testing as part of its research activities. Preliminary data for the period from August 1991 through April 1998 show 34 (2%) of 1,794 individuals tested to be HIV positive. Of those testing positive, 28 (82%) are male and 6 (18%) are female. Race/ethnicity of these HIV positive individuals is as follows: 20 (59%) White, 9 (27%) Black, 4 (12%) Alaska Native/American Indian, and 1 (3%) Hispanic.

[Table of Contents](#)

Estimates of HIV and AIDS Prevalence in Alaska

Many efforts have been made to apply statistical techniques to HIV and AIDS data in order to estimate future trends and numbers of infected individuals in the United States and the world. All of the techniques require large numbers of cases and large populations at risk. These statistical methods cannot be applied to small populations in a valid or useful manner. For this reason, the AIDS/STD Program does not generate formal projections of the numbers of people in Alaska infected with HIV.

[Table of Contents](#)

IMPLICATIONS FOR HIV PREVENTION AND TARGETING SERVICES

Data on AIDS and HIV in Alaska provide important information to help target program policies, strategies, and activities. Alaska data are most useful when viewed in the context of the overall, cumulative knowledge of AIDS and HIV developed over the past seventeen years of the epidemic.

Partners to HIV positive people. Those most likely to become infected are individuals whose sexual partners, or those with whom they share injection equipment, are infected with HIV. Assisting known HIV positive individuals to notify current and past sexual and needle-sharing partners of their exposure to HIV infection is the single most important activity to interrupt HIV transmission. Partner notification allows individuals to learn of their exposure, receive testing for HIV, enter care, and take precautions against future transmission of HIV. This is true whether the notification is done by public health personnel or by the client him/herself.

State AIDS/STD Program data illustrate the importance of such services. During the period from January 1996 through May 1998, 45 HIV-infected persons participated in public health-facilitated partner notification activities. These 45 persons named a total of 122 sex or needle-sharing partners, of whom 91 (75%) were located, counseled, and tested (with consent) for HIV. Of these 91 partners, 27 (30%) were HIV-infected. While general HIV testing is important, the percentage of infected persons found through partner notification (30%) is significantly higher than that found in routine testing through the State Virology Laboratory (in 1997, 32 or 0.2% of 14,574 persons tested were HIV-infected).

Men who have sex with men. HIV and AIDS have most heavily impacted men who have sex with men (MSM). Among all men citing their risk as homosexual or bisexual contact, 303 of 2,625 (11.5%) tested HIV positive through the State Virology Laboratory between May, 1985 and December, 1997. Black and Hispanic men tested who self-identified as homosexual or bisexual had a particularly high proportion of positive test results: 18 of 119 (15.1%) of self-identified gay/bi Black men and 16 of 83 (19.3%) of self-identified gay/bi Hispanic men seeking testing were HIV positive.

HIV prevention efforts targeting MSM are of high priority. Special attention appears warranted to prevention efforts for Black and Hispanic men who have sex with men.

Injection drug users. Approximately half of all new HIV infections in the U.S. occur among injection drug users (IDU).⁷ Although the prevalence of HIV infection among injection drug users (IDU) in Alaska is far lower than in many other parts of the U.S., the efficiency of HIV transmission from sharing injection equipment warrants high priority prevention efforts. Persons addicted to injection drugs may also risk acquiring or transmitting HIV via sexual contact if they are exchanging sex for drugs, or sex for money to buy drugs. Partner follow-up investigations of IDU-linked cases in Alaska found that many at-risk individuals had been incarcerated one or more times. Correctional settings offer important opportunities for prevention interventions. Special

efforts to link HIV positive inmates to medical and supportive services upon discharge are also warranted.

Effective efforts to reduce HIV transmission among injection drug users include multiple activities, including substance abuse treatment, outreach activities to provide prevention messages and interventions, and access to sterile syringes for those who continue to inject (e.g., eliminating local restrictions on sale or possession of syringes and encouraging syringe exchange activities). The Secretary of the U.S. Department of Health and Human Services, based upon evidence from multiple national and international studies, has determined that syringe exchange programs (SEP) can be successful in reducing needle-sharing and consequent HIV transmission among IDU, without increasing drug use. SEP are an important component of a successful HIV prevention effort for this population.

Women at increased risk. Alaska data also support giving priority to preventing HIV among women who are at increased risk, especially as indicated by their own or a partner's injection drug use. Minority women are over-represented among women with AIDS in the U.S. Among Alaska women diagnosed with AIDS, Alaska Native/American Indian and Black women are over-represented.

Perinatal Infection. As the number of women with HIV/AIDS increases, the potential for pediatric cases of HIV/AIDS also increases. This is particularly significant as a majority of women with HIV disease are still in their childbearing years. While treatment advances such as the use of antiretrovirals in pregnancy can substantially reduce the chance of perinatal transmission, the possibility of transmission cannot be eliminated. Also, in order to make decisions about such treatment, and to follow through on a treatment decision, the infected woman must know she is infected, have access to medical care and treatment, and understand and be able to tolerate the treatment regimen.

U.S. Public Health Service Recommendations for HIV Counseling and Voluntary Testing for Pregnant Women recommend routine HIV counseling and voluntary testing for all pregnant women.⁸

The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) Project is a survey of mothers of newborns which was initiated in 1990.⁹ In 1996, the most recent year for which PRAMS data are available, 8,918 Alaska-resident women completed a questionnaire which included two new questions specific to HIV/AIDS:

- During prenatal care, did a provider talk with you about HIV prevention?
"Yes"43.9%
"No"52.4%
- During prenatal care, did a provider talk with you about HIV testing?*"
"Yes"76.6%
"No"20.0%

*The survey asked about discussion of HIV testing, not about whether or not the test was done.

- Alaska Native women were more likely to report discussion of HIV prevention (59.6% vs. 41.3%) and less likely to report discussion of HIV testing (75.1% vs. 80.6%) than non-Native women;
- Women under 20 years of age were more likely to report discussion of HIV prevention than women 20-29 years or ≥ 30 years (65.1% vs. 47.4% and 37.4%, respectively);
- Women age 20-29 were most likely to report discussion of HIV testing (82.6%); and
- Married women were less likely to report discussion of HIV prevention than "other-than-married" women (43.1% vs. 51.7%), although they were equally likely to report discussion of HIV testing (79.4% vs. 79.0%).

[Table of Contents](#)

Partner Notification Services

Identifying individuals who are infected with HIV, assisting HIV positive individuals to help them modify risk behaviors, and working with them to notify sexual and needle-sharing partners: these activities provide the most effective opportunities to interrupt the epidemic and prevent new infections. Voluntary partner notification activities offer the chance to locate those at greatest risk and reach infected individuals earlier in the course of their infection. Targeting HIV counseling, testing, and risk reduction education to contacts of known HIV-infected people will reduce transmission. Assuring early access to medical treatment can enhance case-management. Persons under optimal medical care who are receiving antiretroviral therapy are at reduced risk of infectiousness.

Voluntary, confidential partner notification services are available in Alaska through public health personnel. Assistance with this service is available through the State AIDS/STD Program. Guidelines and training in partner notification are available. Key components of partner notification include:

- Confidentiality;
- Voluntary participation by both the patient and named partners;
- Linkage with or referral to appropriate medical or social services;
- Appropriate training of personnel performing partner notification.

[Table of Contents](#)

Targeting HIV Counseling and Testing

Although many people in Alaska engage in HIV risk behaviors (behaviors which could potentially lead to transmission or acquisition of the virus), relatively few people are likely to have HIV exposure during that risk behavior. Both behavior(s) which could potentially transmit HIV, and HIV infection in one of the persons engaged in the behavior are necessary for HIV transmission to occur. Neither HIV infection alone, nor high risk behavior by itself, will lead to HIV transmission.

Targeting HIV counseling and testing and prevention interventions to those at highest risk is essential. It is increasingly important for infected individuals to receive counseling and testing to learn their HIV status as early as possible in the course of infection.

Knowledge of infection status is also critical to preventing further transmission of HIV to sexual or injecting partners.

Coordinating HIV Prevention and Care

It is critical that those diagnosed with HIV be assisted to access care, and that HIV positive individuals in care also receive services to prevent further transmission. Linking HIV positive individuals to medical care and supportive services provides benefits both to the infected person and to the larger community. For the infected person, early medical assessment and intervention is critical in managing their infection and slowing progression to/of AIDS. Appropriate supportive service referrals can assist the infected individual to address other life issues (e.g., substance abuse; mental health; homelessness). The larger community also receives public health and other benefits when HIV positive persons are linked to care and services, including: ensuring that all sex and needle-sharing partners have been notified of exposure and offered testing; working with the infected person to prevent further transmission of HIV; and providing testing and treatment for STDs, TB, or other diseases of public health importance. Public economic benefits include lower costs of care for HIV/AIDS associated with early entry into medical treatment; and benefits of HIV-infected persons being able to stay healthier, work longer, and maintain private insurance coverage for a longer time.

The State of Alaska receives federal funding under Title II of the Ryan White CARE Act to support outpatient medical and social services for low income individuals affected by HIV. Of the 321 clients served in 1997, 56% had HIV infection without AIDS, and 44% had been diagnosed with AIDS. Thirty-one percent (100) of the 321 clients were served for the first time in 1997. A broad spectrum of clients were served in 1997:

- 7% (22) of the 321 clients receiving services in 1997 were Black, 9% (30) Hispanic, 20% (63) Alaska Native/American Indian, 1% (5) Asian/Pacific Islander, and 63% (201) White;
- Seventeen percent of clients receiving Title II services in 1997 were female and 83% male; and
- Ninety-six percent (309) were aged 20 or older, 3% (9) aged 13-19, and 1% (3) under age 13.

Tuberculosis and HIV/AIDS

Co-infection with tuberculosis and HIV is an important public health issue. Co-infection can complicate the diagnosis of TB and affects medical treatment for both diseases. All persons with HIV infection should be screened for TB, and all persons with TB should receive HIV counseling and testing.

In Alaska in 1997, 78 cases of TB were reported to the Division of Public Health. This was a decline of 19 cases from those reported in 1996. Alaska continued to have a higher incidence of TB (12.8 cases/100,000) than the U.S. as a whole (7.4 cases/100,000). During 1997, 40% (31) of Alaska TB patients were documented to have been offered HIV testing; two of the persons tested (6.5%) were HIV positive. HIV testing was not offered to 18% (14) of TB patients, and HIV testing status was unknown for the remaining 42% (33) of 1997 Alaska TB patients.

Sexually Transmitted Diseases (STDs) and HIV/AIDS

STDs are among the most frequently reported infectious diseases in Alaska. While STD rates reflect unsafe sexual behavior, they do not necessarily correlate closely with exposure to HIV or HIV infection rates. Having an STD increases the risk for both acquiring and transmitting HIV. Persons infected with an STD are two to five times more likely than uninfected persons to acquire HIV if exposed through sexual contact, and a person infected with both HIV and another STD is more likely to transmit HIV through sexual contact than a person infected with HIV who does not have any other STD.¹⁸ Recent studies indicate that the prompt treatment of symptomatic STD can lower the rate of HIV infection in areas where both STD and HIV are common.¹¹ All persons receiving treatment for STD should be offered HIV counseling and testing.

HIV Prevention Planning

The Alaska HIV Prevention Planning Group, formed in 1994, is charged with developing a comprehensive plan for HIV prevention in Alaska and establishing priorities to guide allocation of federal resources for HIV prevention. Members are volunteers from various areas of the state and include prevention providers, persons living with HIV, persons specially knowledgeable about populations with an increased risk of HIV, and experts in prevention planning and related disciplines.

The *Alaska HIV Prevention Plan*, developed by the Planning Group, is based on epidemiological assessment of HIV in Alaska; identification of unmet prevention needs and available resources; and prioritization of unmet needs and interventions to address those needs. The *Plan* also recognizes the considerable national research which has been conducted about the characteristics of prevention interventions likely to bring about behavior change and the need to tailor interventions specifically to individuals or groups with similar risk characteristics.

The *Alaska HIV Prevention Plan* recommends a range of prevention services, targeting first those whose behaviors and probability of exposure place them at greatest risk of infection. These individuals will benefit from intensive HIV prevention interventions, tailored to the specific population and risk characteristics, to assist them to develop new skills and personalized prevention strategies. The *HIV Prevention Plan* also recommends routinely incorporating risk reduction information and strategies into health and social services which reach populations likely to be at increased risk (for example, in correctional settings, mental health counseling, or substance abuse treatment).

Summary

Alaska has a low overall prevalence of AIDS and HIV. Nearly 75% of Alaska AIDS cases have been among men who have sex with men (MSM), injection drug users (IDU), or individuals with both risk behaviors. Examination of recent vs. cumulative AIDS cases and HIV infection shows that Blacks and Hispanics are over-represented in HIV/AIDS cases in Alaska, MSM make up a

decreasing proportion of cases, and women, particularly women who are IDU, make up a small, but increasing proportion of those infected. These changes are consistent with national trends.

[Table of Contents](#)

Recommendations

- **HIV testing in Alaska should be targeted to persons with an increased risk for HIV infection or for whom HIV testing is otherwise appropriate. Persons with an increased risk for HIV infection include:**
 - **Persons with symptoms indicative of HIV/AIDS;**
 - **Sexual or needle-sharing partners of a person known or suspected to have HIV/AIDS;**
 - **Current or former injection drug users (IDU);**
 - **Men who have sex with men (MSM);**
 - **Sexual or needle-sharing partners of MSM or injection drug users;**
 - **Persons with a current sexually transmitted disease (STD);**
- **Other persons who may or may not be at increased risk for HIV infection, but to whom HIV testing should be routinely offered as part of standard care because of the impact of HIV infection on treatment decisions include:**
 - **All persons with active tuberculosis (TB) or a positive test for tuberculosis;**
 - **All pregnant women as part of routine prenatal care, and women considering pregnancy.**
 - **All persons newly diagnosed with HIV infection or AIDS should be assisted to access medical and supportive services.**
- **All persons newly diagnosed with HIV infection or AIDS should be offered assistance by trained public health professionals to identify and notify sexual and needlesharing partners of their exposure to HIV. Partners should be offered HIV counseling, testing, and other indicated services.**
- **Those individuals who continue to inject drugs should be assured access to sterile syringes to prevent transmission of HIV and other bloodborne infections.**

[Table of Contents](#)

References:

1. Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 1997; 9(No.2).
2. Alaska Department of Labor, Research and Analysis Section, Williams, JG (State Demographer). Alaska Population Overview: 1997 Estimates. June, 1998.
3. Centers for Disease Control and Prevention. *HIV/AIDS Among American Indians and Alaskan Natives—United States, 1981-1997*. MMWR 1998 March 6; 47 (No. 8): [154-160].
4. Alaska Bureau of Vital Statistics. Annual Reports for 1982-1996. Number of deaths per year attributed to HIV infection: 1982-1996.
5. Palella, FJ, et. al. *Declining Morbidity and Mortality Among Patients with Advanced Human Immunodeficiency Virus Infection*. NEJM 1998 March 26; Vol. 338 (No. 13): [853-860].
6. Centers for Disease Control and Prevention. *Diagnosis and Reporting of HIV and AIDS in States with integrated HIV and AIDS Surveillance—United States, January 1994-June 1997*. MMWR 1998 April 24; 47 (No. 8): [309-314].
7. Holmberg, S. *The estimated prevalence and incidence of HIV in 96 large US metropolitan areas*. Am J Public Health. 1996; 86:[642-654].
8. Centers for Disease Control and Prevention. *U.S. Public Health Service Recommendations for Human Immunodeficiency Virus Counseling and Voluntary Testing for Pregnant Women*. MMWR 1995 July 7; 44(RR-7).
9. Pregnancy Risk Assessment Monitoring System (PRAMS), Section of Maternal, Child, and Family Health, Division of Public Health, Alaska Dept. of Health and Social Services. 1996 HIV-Related PRAMS Responses, personal communication, K. Perham-Hester.
10. Wasserheit, JN. 1992. "Epidemiologic synergy: Interrelationships between human immunodeficiency virus infection and other sexually transmitted diseases." Sexually Transmitted Diseases 9:61-77.
11. Centers for Disease Control and Prevention. *HIV Prevention Through Early Detection and Treatment of Other Sexually Transmitted Diseases—United States*. MMWR 1998 July 31; 47(RR-12).

[Table of Contents](#)
